



Department of Energy
Carlsbad Field Office
P. O. Box 3090
Carlsbad, New Mexico 88221

RECEIVED

AUG 27 2014

AUG 25 2014

NMED
Hazardous Waste Bureau

Mr. John E. Kieling, Chief
Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Drive East, Bldg. 1
Santa Fe, New Mexico 87505-6303

Subject: Transmittal of the Final Report for CBFO Audit A-14-29 of the Oak Ridge National Laboratory/Central Characterization Program

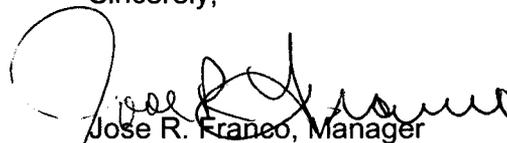
Dear Mr. Kieling:

This letter transmits the Final Audit Report for Carlsbad Field Office (CBFO) Audit A-14-29 of the Oak Ridge National Laboratory (ORNL) site, and services of the Nuclear Waste Partnership LLC Central Characterization Program (CCP), for certification of the contact-handled transuranic waste visual examination (VE) process performed to characterize and certify waste in accordance with the Waste Isolation Pilot Plant (WIPP) Hazardous Waste Facility Permit (HWFP). The audit was conducted July 29-30, 2014.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

If you have any questions concerning this audit report, please contact Mr. Michael R. Brown, Director of the CBFO Quality Assurance Division, at (575) 234-7476.

Sincerely,


Jose R. Franco, Manager
Carlsbad Field Office

Enclosure



Mr. John E. Kieling

-2-

AUG 25 2014

cc: w/Report Narrative

D. Bryson, CBFO	* ED	E. Feltcorn, EPA	ED
M. Brown, CBFO	ED	R. Joglekar, EPA	ED
J.R. Stroble, CBFO	ED	S. Ghose, EPA	ED
G. Basabilvazo, CBFO	ED	R. Lee, EPA	ED
M. Navarrete, CBFO	ED	T. Kliphuis, NMED	ED
D. Miehl, CBFO	ED	S. Holmes, NMED	ED
T. Morgan, CBFO	ED	R. Maestas, NMED	ED
M. Pinzel, CBFO	ED	C. Smith, NMED	ED
N. Castaneda, CBFO	ED	V. Daub, CTAC	ED
S. Cange, DOE-OR	ED	R. Allen, CTAC	ED
L. Wilkerson, DOE-OR	ED	B. Pace, CTAC	ED
R. McQuinn, NWP	ED	P. Martinez, CTAC	ED
J. Blankenhorn, NWP	ED	D. Harvill, CTAC	ED
J. Harris, NWP	ED	G. White, CTAC	ED
F. Sharif, NWP/CCP	ED	Site Documents	ED
D.E. Gulbransen, NWP/CCP	ED	R. Chavez, RES	ED
V. Cannon, NWP/CCP	ED	W. Most, RES	ED
A.J. Fisher, NWP/CCP	ED	J. Haschets, RES	ED
M. Walker, NWP/CCP	ED	B. Carlsen, RES	ED
W. Ledford, NWP/CCP	ED	A. Urquidez, RES	ED
J. Carter, NWP/CCP	ED	*ED denotes electronic distribution	
J. Hoff, NWP/QA	ED		
B. Allen, NWP/QA	ED	cc: w/enclosure	
S. Punchios, NWP/QA	ED	WIPP Operating Record	** EF
S. Escareno-Soto, NWP/QA	ED	CBFO QA File	EF
T. Peake, EPA	ED	CBFO M&RC	EF
L. Bender, EPA	ED	**EF denotes electronic file	

**U.S. Department of Energy
Carlsbad Field Office**

CONTENT MAP

**Final Audit Report of Audit A-14-29 of the
Oakridge National Laboratory (ORNL)
Central Characterization Program (CCP)
Waste Characterization and Certification
Program**



**Audit Number A-14-29
July 29 – 30, 2014**

CONTENT MAP

This box contains the Final Audit Report of CBFO Audit A-14-29 of the ORNL/CCP Quality Assurance Program and the ORNLCCP (TRU) Waste Characterization and Certification Program conducted July 29 - 30, 2014. The box also contains a list of objective evidence used to conduct the audit. The documents have been organized into color-coded folders, one each for the ORNL CCP Implementing Procedures (purple folder), Final Audit Report (manila folder), the C-6 Checklist (brown folder), General Information (green folder), and Visual Examination (yellow folder). The list below identifies each document by name and number and indicates where each may be found.

CONTENT MAP		Black Folder
Final Audit Report		Manila Folder
Final Audit Report		
Attachment 1: Personnel Contacted During the Audit		
Attachment 2: Personnel Contacted During the Audit by Subject Area		
Attachment 3: Objective Evidence Compiled During the Audit (provided in boxes)		
Attachment 4: List of Audited Documents		
Attachment 5: List of Processes and Equipment Evaluated During the Audit		
Attachment 6: Procedure Revision Matrix		
C6 Checklist		Brown Folder
C6-1	Waste Analysis Plan (WAP) Checklist	
C6-2	Acceptable Knowledge (AK) Checklist	
C6-4	Visual Examination (VE) Checklist	
ORNL/CCP Program Implementing Procedures Audited		Purple Folder
See Final Report Attachment 4 for List of Audited SRS CCP Procedures		
Attachment 3 - Objective Evidence		
General Information (Checklist C6-1) Waste Analysis Plan (WAP)		Green Folder
GEN1	Nonconformance Reports	
GEN2	Contact-Handled (CH) Visual Examination (VE) NCR Log	
GEN3	CH Records Inventory and Disposition Schedule (RIDS)	
GEN4	Qualification records for selected CCP personnel	
GEN5	CCP – ORNL List of Qualified Individuals dated 07/24/2014	
Visual Examination (Checklist C6-4)		Yellow Folder
VE1	Batch Data Reports - ORNLCHVE0101, ORNLCHVE0102, ORNLCHVE0103, ORNLCHVE0104, ORNLCHVE0108, ORNLCHVE0109, and ORNLCHVE0110	
VE2	Training Records for 3 VE Operators and 1 VE Expert	
VE3	VEE Appointment Letter and training records	

U.S. DEPARTMENT OF ENERGY
CARLSBAD FIELD OFFICE

FINAL AUDIT REPORT

OF THE

OAK RIDGE NATIONAL LABORATORY
CENTRAL CHARACTERIZATION PROGRAM

OAK RIDGE, TENNESSEE
and CARLSBAD, NEW MEXICO

AUDIT NUMBER A-14-29

JULY 29 – 30, 2014

TRU WASTE CHARACTERIZATION AND CERTIFICATION



Prepared by:

Berry D. Pace

Berry D. Pace, CTAC
Audit Team Leader

Date:

8/13/14

Approved by:

Michael R. Brown

Michael R. Brown, Director
CBFO Quality Assurance Division

Date:

8-20-14

1.0 EXECUTIVE SUMMARY

U.S. Department of Energy (DOE) Carlsbad Field Office (CBFO) Audit A-14-29 was performed to evaluate the adequacy, implementation, and effectiveness of established programs for transuranic (TRU) waste characterization activities performed for the Oak Ridge National Laboratory (ORNL) by the Nuclear Waste Partnership LLC (NWP) Central Characterization Program (CCP). The audit team evaluated the programs, procedures, and processes for characterizing contact-handled (CH) Summary Category Group (SCG) S5000 debris wastes utilizing the visual examination (VE) process. The audit was conducted relative to the requirements of the Waste Isolation Pilot Plant (WIPP) Hazardous Waste Facility Permit (HWFP), and the *CBFO Quality Assurance Program Document* (QAPD).

Audit activities were conducted at ORNL TRU Waste Processing Center (TWPC) facilities in Oak Ridge, Tennessee, and at the Skeen-Whitlock Building in Carlsbad, New Mexico, July 29 – 30, 2014. Overall, the audit team concluded that the ORNL/CCP technical and quality assurance (QA) programs evaluated were adequately established for compliance with applicable upper-tier requirements, satisfactorily implemented, and effective in achieving the desired results.

2.0 SCOPE AND PURPOSE

2.1 Scope

The following general areas were audited, as required by Attachment C6, Section C6-3 of the WIPP HWFP Waste Analysis Plan (WAP):

- Results of Previous Audits
- Changes in Programs or Operations
- New Programs or Activities Being Implemented
- Changes in Key Personnel

The following WAP-related QA elements were audited:

- Personnel Qualification and Training
- Nonconformances
- Records

The following WAP-related waste characterization technical elements were audited:

- Visual Examination (VE)

Evaluation of adequacy of ORNL/CCP documents was based on the current revisions of the following documents:

- *Quality Assurance Program Document* (QAPD), DOE/CBFO-94-1012
- *Waste Isolation Pilot Plant Hazardous Waste Facility Permit*, NM4890139088-TSDF

Programmatic and technical checklists were developed from the current revisions of the following documents:

- *CCP Transuranic Waste Characterization Quality Assurance Project Plan (QAPjP)*, CCP-PO-001
- Related ORNL/CCP technical and QA implementing procedures

2.2 Purpose

Audit A-14-29 was conducted to determine the degree of adequacy and effective implementation of program requirements for the characterization and certification of CH SCG S5000 debris waste at the ORNL. The audit team also evaluated specific QA elements relating to HWFP WAP requirements.

3.0 AUDIT TEAM AND OBSERVERS

AUDITORS/TECHNICAL SPECIALISTS

Martin Navarrete	Management Representative, CBFO Quality Assurance Division
Berry Pace	Audit Team Leader, CBFO Technical Assistance Contractor (CTAC)
Greg Knox	Auditor, CTAC
Porf Martinez	Auditor, CTAC
Tammy Ackman	Auditor, CTAC
Mike Noland	Auditor, CTAC
Rick Castillo	Technical Specialist, CTAC

OBSERVERS

Ricardo Maestas	New Mexico Environment Department (NMED)
Tom Morgan	CBFO TRU Sites and Transportation Division (TSTD)
Dale Bignell	CTAC (requested by TSTD)

4.0 AUDIT PARTICIPANTS

The ORNL/CCP personnel contacted during the audit process are identified in Attachment 1. A pre-audit meeting was held on July 29, 2014, at the TWPC in Oak Ridge, Tennessee, and at the Skeen-Whitlock Building in Carlsbad, New Mexico. Daily management briefings were conducted to update ORNL/CCP management and staff on audit progress and identified concerns. A post-audit meeting was held on July 30, 2014, at the TWPC in Oak Ridge, Tennessee, and at the Skeen-Whitlock Building in Carlsbad, New Mexico.

Attachment 2 lists the ORNL/CCP personnel contacted during the audit by subject area, Attachment 3 identifies the objective evidence compiled (provided in boxes), Attachment 4 lists the audited documents, Attachment 5 lists the processes and equipment evaluated and Attachment 6 identifies the procedure revisions since Audit A-14-03.

5.0 SUMMARY OF AUDIT RESULTS

5.1 Program Adequacy, Implementation, and Effectiveness

This audit was performed to assess the capability of ORNL/CCP to characterize and certify CH SCG S5000 debris waste for compliance with the requirements specified in the WIPP HWFP WAP and the QAPD. The characterization method assessed was VE.

The audit team concluded that, based on personnel interviews, observance of operations, and review of associated documentation and records, the ORNL/CCP TRU waste characterization program and activities for characterizing CH SCG S5000 debris waste are adequately established, satisfactorily implemented, and effective in achieving the desired results.

5.2 General Activities

5.2.1 Results of Previous Audits

The results of the last CBFO audit of ORNL/CCP (A-14-03) were examined. CBFO Corrective Action Report (CAR) 14-009 was initiated, which identified a condition adverse to quality when an obsolete version of an acceptable knowledge summary report was being used during VE. The audit team did not identify a similar/same condition during the course of this audit, which suggests that the corrective actions taken in response to CAR 14-009 were effective in precluding recurrence.

5.2.2 Changes in Programs or Operations

The change in programs and operations at ORNL was the addition of CH VE operations, which was subject to evaluation during this audit.

5.2.3 New Programs or Activities Being Implemented

ORNL/CCP introduced VE operations for characterizing CH waste.

5.2.4 Changes in Key Personnel

No changes have occurred since Audit A-14-03. Mr. Andrew Stallings still serves as the vendor project manager (VPM) and Ms. Beverly Schrock serves as the site project manager (SPM).

5.3 Quality Assurance Activities

The audit team evaluated the applicable QA elements for personnel qualification and training, nonconformances, and records for compliance with requirements in the HWFP WAP. The evaluation results for each area audited are described below.

5.3.1 Personnel Qualification and Training

The audit team conducted interviews with responsible personnel and reviewed implementing procedure CCP-QP-002, Rev. 37, *CCP Training and Qualification Plan*, to determine the degree to which the procedure adequately addresses upper-tier requirements. Results of the review indicate that the procedure adequately addresses upper-tier requirements.

Personnel training records associated with VE and SPMs were examined to verify compliance with associated requirements and to confirm that personnel were appropriately trained/qualified. Record reviews included qualification of VE Operator/Independent Technical Reviewers; VE Expert (VEE) appointment documentation; and SPM qualification cards. The audit team also reviewed the ORNL Program List of Qualified Individuals dated July 24, 2014.

No WAP-related deficiencies regarding personnel qualification and training were identified. The procedures reviewed and objective evidence assembled provided evidence to confirm that the applicable requirements for personnel qualification and training were adequately established for compliance with upper-tier requirements, satisfactorily implemented, and effective in achieving the desired results.

5.3.2 Nonconformances

The audit team conducted interviews with responsible personnel and reviewed implementing procedure CCP-QP-005, Rev. 24, *CCP TRU Nonconforming Item Reporting and Control*, to determine the degree to which the procedure adequately addresses upper-tier requirements. Results of the review indicate that the procedure adequately addresses upper-tier requirements.

The audit team interviewed the CCP project office QA engineer; reviewed the CH VE Nonconformance Report Log; and randomly selected the following nonconformance reports (NCRs) for review:

- NCR-ORNL-0159-14, Rev. 0
- NCR-ORNL-0162-14, Rev. 0
- NCR-ORNL-0260-14, Rev. 0
- NCR-ORNL-0256-14, Rev. 0
- NCR-ORNL-0702-14, Rev. 0
- NCR-ORNL-0803-14, Rev. 0

The team concluded that deficiencies are being appropriately documented and tracked through resolution as required. There were no NCRs deemed reportable to the Permittees within seven days, as required by the Permit. All the NCRs examined were verified to have been entered, managed, and tracked in both the CCP Integrated Data Center (IDC) and on the CCP NCR Logs.

No WAP-related deficiencies regarding NCRs were identified. The procedures reviewed and objective evidence assembled provided evidence to confirm that the

applicable requirements for nonconformances are adequately established for compliance with upper-tier requirements, satisfactorily implemented, and effective in achieving the desired results.

5.3.3 Records

The audit team conducted interviews and reviewed implementing procedures relative to the control and administration of QA records to determine the degree to which the procedures adequately address upper-tier requirements. The audit team reviewed procedures CCP-PO-001, Rev. 21, *CCP Transuranic Waste Characterization Quality Assurance Project Plan*; CCP-PO-002, Rev. 27, *CCP Transuranic Waste Certification Plan*; CCP-QP-008, Rev. 22, *CCP Records Management*, and CCP-QP-028, Rev. 15, *CCP Records Filing, Inventorying, Scheduling, and Dispositioning*. Results of the review indicate that the procedures adequately address upper-tier requirements.

Control of records was verified through review of the CH Records Inventory and Disposition Schedule dated August 1, 2013 and through interview with responsible personnel.

The procedures reviewed and objective evidence assembled and evaluated during the audit provided evidence that the applicable requirements for QA records are adequately established for compliance with upper-tier requirements, satisfactory in the implementation of these requirements, and effective in achieving the desired results.

5.4 Technical Activities

Each technical area audited is discussed in detail in the following sections. The method used to select objective evidence is discussed, the objective evidence used to assess compliance with the HWFP is cited briefly, and the result of the assessment is provided.

5.4.1 Table C6-1, WAP Checklist

The C6-1 WAP Checklist addresses general program requirements from an overall management perspective. The general requirements checklist addresses both technical requirements and specific WAP-related QA programmatic requirements that, when collectively implemented, ensure effective overall management of TRU waste characterization activities. Requirements are integrated into controlled documents to ensure the waste characterization strategy, as defined in the WAP, is accomplished and documented in accordance with controlled processes and procedures.

The audit team evaluated the adequacy, implementation, and effectiveness of the ORNL/CCP VE characterization process for CH SCG S5000 debris waste. Objective evidence was selected and reviewed to evaluate the implementation of the associated characterization activities. Batch data reports (BDRs) and personnel qualification and training documentation were included in the evaluation.

Specific procedures audited and the objective evidence reviewed are described in the following sections.

During the audit, ORNL/CCP demonstrated compliance with the waste characterization requirements of the WAP through documentation and by performing characterization activities.

5.4.2 Table C6-2, Acceptable Knowledge Checklist

Refer to Section 5.4.3, Table C6-4, Visual Examination Checklist.

5.4.3 Table C6-3, Radiography Checklist

This was evaluated during ORNL/CCP Recertification Audit A-14-03.

5.4.4 Table C6-4, Visual Examination Checklist

The audit team conducted interviews with responsible personnel and reviewed implementing procedures CCP-TP-113, Rev. 18, *CCP Standard Contact-Handled Waste Visual Examination*, and CCP-QP-002, Rev. 37, *CCP Training and Qualification Plan*, to determine the degree to which the procedures adequately address upper-tier requirements. Results of the review indicate that the procedures adequately address upper-tier requirements.

ORNL/CCP uses the two-operator method when performing VE characterization. The two qualified operators visually examine the waste as it is placed into containers. The audit team interviewed VE operators and the VEE. The audit team also examined the VE operational logbook (CCP-ORNL-VE-001) and verified logbook entries were logged correctly and reviewed by the VPM as required. During the audit, the audit team toured the TWPC Hot Cell Facility and observed VE operations being performed on waste from container X10C04028986 into output container X10C0402898L1.

The audit team examined the following CH VE BDRs generated from operations performed in the TWPC Hot Cell Facility to verify implementation and compliance with the requirements in CCP-TP-113:

- ORNLCHVE0101
- ORNLCHVE0102
- ORNLCHVE0103
- ORNLCHVE0104
- ORNLCHVE0108
- ORNLCHVE0109
- ORNLCHVE0110

No WAP-related deficiencies regarding Table C6-4 were identified during the audit. The procedure reviews, field observations, and document reviews provided evidence that the applicable requirements for VE are adequately established for compliance with upper-tier requirements, satisfactorily implemented, and effective in achieving the desired results.

6.0 CORRECTIVE ACTIONS

6.1 Corrective Action Reports

During the audit, the audit team may identify conditions adverse to quality (CAQs), as defined below, and document such conditions on CARs.

Condition Adverse to Quality (CAQ) – Term used in reference to failures, malfunctions, deficiencies, defective items, and nonconformances.

Significant Condition Adverse to Quality – A condition which, if uncorrected, could have a serious effect on safety, operability, waste confinement, TRU waste site certification, compliance demonstration, or the effective implementation of the QA program.

No WAP-related deficiencies necessitating a CAR were identified during the audit.

6.2 Deficiencies Corrected During the Audit

During the audit, the audit team may identify CAQs. Audit team members, the Audit Team Leader (ATL), and the CBFO QA representative evaluate the CAQs to determine if they are significant. Once a determination is made that the CAQ is not significant, the audit team member, in conjunction with the ATL and the CBFO QA representative, determines if the CAQ is an isolated case requiring only remedial action and therefore can be corrected during the audit.

Upon determination that the CAQ is isolated, the audit team member, in conjunction with the ATL and the CBFO QA representative, evaluates/verifies any objective evidence/actions submitted or taken by the audited organization and determines if the condition was corrected in an acceptable manner. Once it has been determined that the CAQ has been corrected, the CBFO QA representative categorizes the condition as corrected during audit (CDA) according to the definition below:

CDAs – Isolated deficiencies that do not require a root cause determination or actions to preclude recurrence. Correction of the deficiency can be verified prior to the end of the audit. Examples include one or two minor changes required to correct a procedure (isolated), one or two forms not signed or not dated (isolated), and one or two individuals that have not completed a reading assignment.

No WAP-related deficiencies were identified and corrected during this audit.

7.0 LIST OF ATTACHMENTS

- Attachment 1: Personnel Contacted During the Audit
- Attachment 2: Personnel Contacted During the Audit by Subject Area
- Attachment 3: Objective Evidence Reviewed During the Audit (provided in boxes)
- Attachment 4: Table of Audited Documents
- Attachment 5: List of Processes and Equipment Reviewed
- Attachment 6: Procedure Revision Matrix

PERSONNEL CONTACTED DURING AUDIT A-14-29				
NAME	ORG/TITLE	PREAUDIT MEETING	CONTACTED DURING AUDIT	POST-AUDIT MEETING
Dale Bignell	CTAC Observer	X		X
Michele Billett	NWP/CCP NTPC Training Coordinator		X	
Jason Cofer	NWP/CCP VE		X	
Anthony Harley	NWP/CCP VEE	X	X	X
LaTrana Harmon	NWP/CCP QA	X		X
Laura Jones	NWP/CCP QAE		X	
Scott Kranker	TWPC STR			X
Wayne Ledford	NWP/CCP QA Specialist			X
Ricardo Maestas	NMED Observer	X		
Shelly Martinez	NWP/CCP CE RTR/VE	X	X	X
Derek Matheny	NWP/CCP VE		X	
Kevin Meyer	MCS EA	X		
Tom Morgan	CBFO/TSTD Certification Manager	X		X
Jim Morrison	NWP/CCP IDC Group		X	
Martin Navarrete	CBFO QA Representative	X		X
Sheila Pearcy	NWP/CCP NTPC Records Manager		X	
Ron Reeves	NWP/CCP Project Manager	X	X	X
Beverly Schrock	NWP/CCP SPM		X	X
Mike Sensibaugh	NWP/CCP Operations Manager	X		X
Andrew Stallings	NWP/CCP VPM	X	X	X
Chuck Wallace	NWP/CCP VE		X	
Veronica Waldram	NWP/CCP QA		X	X

PERSONNEL CONTACTED DURING THE AUDIT BY SUBJECT AREA

Personnel Qualification and Training	Michele Billett
Control of Nonconforming Items	Laura Jones Jim Morrison Veronica Waldram
Records	Sheila Percy
Visual Examination	Jason Cofer Anthony Harley Shelly Martinez Derek Matheny Ron Reeves Andrew Stallings Chuck Wallace

OBJECTIVE EVIDENCE REVIEWED DURING THE AUDIT

The objective evidence supporting Audit A-14-29 is included in the box submitted with this report. Included in the box is a "Content Map" describing the location (using color coding) and identity of all required objective evidence supporting the performance of the audit.

**Table C6-1 Waste Analysis Plan (WAP) Checklist
ORNL/CCP Recertification Audit A-14-29
July 29 – 30, 2014**

(This page intentionally blank)

Waste Analysis Plan (WAP) General Checklist for use at DOE's Generator/Storage Sites

	WAP Requirement ¹ ORNL/CCP Recertification Audit A-14-29 Table C6-1 Waste Analysis Plan (WAP) Checklist ¹	Procedure Documented		Example of Implementation/Objective Evidence, as applicable		Comment (e.g., any change in procedure since last audit, etc.)
		Location	Adequate? Y/N (Why?)	Item Reviewed	Adequate? Y/N	
WASTE STREAM IDENTIFICATION						
1	Does the generator/storage site define "waste stream" as waste materials that have common physical form, that contain similar hazardous constituents, and that are generated from a single process or activity? (Attachment C Section C-0a)	N/A	N/A	N/A	N/A	Evaluated during A-14-03
2	Are procedures in place to ensure that the generator/storage site assigns one of the Summary Category Groups (S3000-homogeneous solids, S4000-soils/gravel, S5000-debris waste) to each waste stream? (Section C-1b)	N/A	N/A	N/A	N/A	Evaluated during A-14-03
3	Are procedures in place to ensure that the generator/storage site assigns Waste Matrix Code Groups (e.g., solidified inorganics, solidified organics, salt waste, soils, combustible waste, filters, graphite, heterogeneous debris waste, inorganic nonmetal waste, lead/cadmium metal, uncategorized metal) to each waste stream? (Section C-0a)	N/A	N/A	N/A	N/A	Evaluated during A-14-03
4	Are procedures in place to ensure that the generator/storage site assigns a Waste Stream WIPP Identifier (ID) to each waste stream? (Section C3-6b(1))	N/A	N/A	N/A	N/A	Evaluated during A-14-03

	WAP Requirement ¹ ORNL/CCP Recertification Audit A-14-29 Table C6-1 Waste Analysis Plan (WAP) Checklist ¹	Procedure Documented		Example of Implementation/Objective Evidence, as applicable		Comment (e.g., any change in procedure since last audit, etc.)
		Location	Adequate? Y/N (Why?)	Item Reviewed	Adequate? Y/N	
4a	<p>Are procedures in place for generator/storage sites to submit an AK Sufficiency Determination (Determination Request) to the Permittees to meet all or part of the waste characterization requirements including:</p> <ul style="list-style-type: none"> • All information specified in Permit Attachment C4, Section C4-3d • Identification of relevant hazardous constituents, and correctly identifies all toxicity characteristic and listed hazardous waste numbers • All hazardous waste number assignments must be substantiated by supporting data and, if not, whether this lack of substantiation compromises the interpretation • Resolution of data discrepancies between different AK sources must be technically correct and documented • The AK Summary includes all the identification of waste material parameter weights by percentage of the material in the waste stream, and determinations are technically correct • All prohibited items specified in the TSDF-WAC should be addressed, and conclusions drawn are technically adequate and substantiated by supporting information • If the AK record includes process control information specified in Permit Attachment C4, Section C4-3b, the information should include procedures, waste manifests, or other documentation demonstrating that the controls were adequate and sufficient. • The site must provide the supporting information necessary to substantiate technical conclusions within the Determination Request, and this information must be correctly interpreted. <p>(Section C-0b, Section C4-3d)</p>	N/A	N/A	N/A	N/A	Evaluated during A-14-03
4b	<p>If a generator/storage site does not submit a Determination Request or if the Determination Request is not approved, are procedures in place for the generator/storage site to perform radiography or VE on 100% of the containers in a waste stream as specified in Permit Attachment C1?</p> <p>(Section C-0b)</p>	N/A	N/A	N/A	N/A	Evaluated during A-14-03

	WAP Requirement ¹ ORNL/CCP Recertification Audit A-14-29 Table C6-1 Waste Analysis Plan (WAP) Checklist ¹	Procedure Documented		Example of Implementation/Objective Evidence, as applicable		Comment (e.g., any change in procedure since last audit, etc.)
		Location	Adequate? Y/N (Why?)	Item Reviewed	Adequate? Y/N	
4c	Are procedures in place to ensure that the generator/storage sites complete a Waste Stream Profile Form (WSPF) and Characterization Information Summary (CIS) as specified in Permit Attachment C3, Sections C3-6b(1) and C3-6b(2)? (Section C-0c)	N/A	N/A	N/A	N/A	Evaluated during A-14-03
6	Are procedures in place to ensure that the generator/storage site assigns EPA hazardous waste numbers associated with the waste? If so, do these assigned EPA hazardous waste numbers correspond to the permitted EPA hazardous waste numbers in Table C-5? Are there any assigned EPA hazardous waste numbers that are not permitted EPA hazardous waste numbers on the Table C-5? If so, did the generator/storage site reject the waste for shipment to and disposal at WIPP? Did the generator assign a state hazardous waste codes or numbers? If so, is it assigned to waste that is permitted at WIPP? (Section C-1b)	N/A	N/A	N/A	N/A	Evaluated during A-14-03
7	Are procedures in place to ensure that Summary Category Groups are defined as follows: S3000- Homogeneous solids are solid material, inorganic process residues, inorganic sludges, salt waste, and pyrochemical salt waste excluding soils, that do not meet NMED criteria for classification as debris and are at least 50 percent by volume homogeneous solids or comprise the majority of the waste stream S4000- Waste streams that are at least 50 percent by volume soil/gravel, or comprise the majority of the waste stream S5000- Waste streams that are at least 50 percent volume materials that meet the NMED criteria for debris, or comprise the majority matrix of materials. The criteria for debris are solid materials intended for disposal that exceed 2.36 inch particle size and is a manufactured object, plant or animal matter, or natural geologic material. Particles smaller than 2.36 inches in size may be considered debris if the debris is a manufactured object and if it is not a particle of S3000 or S4000 material. (Section C-0a)	N/A	N/A	N/A	N/A	Evaluated during A-14-03

	WAP Requirement ¹ ORNL/CCP Recertification Audit A-14-29 Table C6-1 Waste Analysis Plan (WAP) Checklist ¹	Procedure Documented		Example of Implementation/Objective Evidence, as applicable		Comment (e.g., any change in procedure since last audit, etc.)
		Location	Adequate? Y/N (Why?)	Item Reviewed	Adequate? Y/N	
8	Does the generator/storage facility have procedures in place to ensure that the following waste characterization parameters will be obtained: <ul style="list-style-type: none"> Determination whether TRU mixed waste streams comply with the applicable provisions of the TSDF-WAC Determination whether TRU mixed wastes exhibit a hazardous characteristic per 20.4.1.200 NMAC (incorporating 40 CFR 261 Subpart C) Determination whether TRU mixed wastes are listed per 20.4.1.200 NMAC (incorporating 40 CFR 261 Subpart D) Estimation of waste material parameter weights (Section C-2)	N/A	N/A	N/A	N/A	Evaluated during A-14-03
9	Are procedures in place to ensure that waste streams identified to contain incompatible materials or materials incompatible with waste containers cannot be shipped unless treated to remove the incompatibility? (Section C-1c)	N/A	N/A	N/A	N/A	Evaluated during A-14-03
10	Are procedures in place to ensure that the generator/storage site uses acceptable knowledge and, as necessary, radiography and visual examination analysis as specified in Table C-1? (Section C-3)	N/A	N/A	N/A	N/A	Evaluated during A-14-03
UNACCEPTABLE WASTE						
12	Are procedures in place to ensure that the generator/storage site ensures, through administrative and operational procedures and characterization techniques, that waste containers do not include the following unacceptable waste: <ul style="list-style-type: none"> liquid waste is not acceptable at WIPP. Liquid in the quantities delineated below is acceptable <ul style="list-style-type: none"> Observable liquid shall be no more than 1 percent by volume of the outermost container at the time of radiography or visual examination Internal containers with more than 60 milliliters or 3 percent by volume observable liquid, whichever is greater, are prohibited Containers with Hazardous Waste number U134 assigned shall have no observable liquid Overpacking the outermost container that was examined during radiography or visual examination or redistributing untreated liquid within the container shall not be used to meet the liquid volume limits 	N/A	N/A	N/A	N/A	Evaluated during A-14-03

	WAP Requirement ¹ ORNL/CCP Recertification Audit A-14-29 Table C6-1 Waste Analysis Plan (WAP) Checklist ¹	Procedure Documented		Example of Implementation/Objective Evidence, as applicable		Comment (e.g., any change in procedure since last audit, etc.)
		Location	Adequate? Y/N (Why?)	Item Reviewed	Adequate? Y/N	
	<ul style="list-style-type: none"> non-radionuclide pyrophoric materials hazardous wastes not occurring as co-contaminants with TRU wastes (non-mixed hazardous wastes) wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes wastes containing explosives or compressed gases (continued below) 					
12a	<ul style="list-style-type: none"> wastes with polychlorinated biphenyls (PCBs) not authorized under an EPA PCB waste disposal authorization wastes exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003) waste that has ever been managed as high-level waste and waste from tanks specified in Table C-4, unless specifically approved through a Class 3 permit modification any waste container from a waste stream (or waste stream lot) which has not undergone either radiographic or visual examination of a statistically representative subpopulation of the wastes stream in each shipment pursuant to Permit Attachment C7 any waste container from a waste stream which has not been preceded by an appropriate, certified Waste Stream Profile Form (see Section C-1d) (Section C-1c)	N/A	N/A	N/A	N/A	Evaluated during A-14-03
WASTE ACCEPTANCE CONTROL						
14	Are procedures in place to ensure that the generator/storage site uses a Waste Stream Profile Form (WSPF) which includes, at a minimum, the information indicated on the attached WSPF found in Figure C-1 and a Characterization Information Summary (CIS) prior to waste disposal at the WIPP? (Section C-1d)	N/A	N/A	N/A	N/A	Evaluated during A-14-03
16	Are procedures in place to ensure that additional WSPFs are provided to WIPP and NMED for waste streams or portions of waste streams that are reclassified based upon waste characterization information? (Section C-1d)	N/A	N/A	N/A	N/A	Evaluated during A-14-03
16a	Are criteria in place to determine the specific circumstances under which a WSPF is revised versus when a new WSPF is required? (Section C-1d)	N/A	N/A	N/A	N/A	Evaluated during A-14-03

	WAP Requirement ¹ ORNL/CCP Recertification Audit A-14-29 Table C6-1 Waste Analysis Plan (WAP) Checklist ¹	Procedure Documented		Example of Implementation/Objective Evidence, as applicable		Comment (e.g., any change in procedure since last audit, etc.)
		Location	Adequate? Y/N (Why?)	Item Reviewed	Adequate? Y/N	
GENERAL CHARACTERIZATION REQUIREMENTS						
25	Are procedures in place to ensure that Acceptable Knowledge is used in waste characterization activities to delineate TRU mixed waste streams, to assess whether TRU mixed wastes comply with the TSDF-WAC, to assess whether TRU mixed waste exhibits a hazardous characteristic (20.4.1.200 NMAC, incorporating 40 CFR 261 Subpart C), and to assess whether TRU wastes are listed (20.4.1.200 NMAC, incorporating 40 CFR 261 Subpart D), and to estimate waste material parameter weights? (Section C-3a)	N/A	N/A	N/A	N/A	Evaluated during A-14-03
26	Are procedures in place to ensure that radiography and/or visual examination are used as necessary to: <ul style="list-style-type: none"> • Examine a waste container to determine the physical form • Identify observable liquid in excess of TSDF-WAC limits and containerized gases • Verify the physical form matches the waste stream description (Section C-3b)	CCP-TP-113 S. 1.0, Table 1 & Att. 1 & 2	Y	<u>BDRs:</u> ORNLCHVE0101 ORNLCHVE0102 ORNLCHVE0103 ORNLCHVE0104 ORNLCHVE0108 ORNLCHVE0109 ORNLCHVE0110 (VE-1)	Y	
28	Are procedures in place to ensure that the following characterization activities shall occur: <ul style="list-style-type: none"> • Acceptable Knowledge for all wastes, with testing as necessary to augment AK including; <ul style="list-style-type: none"> - Visual examination or radiography for all waste containers 	N/A	N/A	N/A	N/A	Evaluated during A-14-03

	WAP Requirement ¹ ORNL/CCP Recertification Audit A-14-29 Table C6-1 Waste Analysis Plan (WAP) Checklist ¹	Procedure Documented		Example of Implementation/Objective Evidence, as applicable		Comment (e.g., any change in procedure since last audit, etc.)
		Location	Adequate? Y/N (Why?)	Item Reviewed	Adequate? Y/N	
DATA GENERATION, VERIFICATION, VALIDATION, DOCUMENTATION, AND QUALITY ASSURANCE						
30	<p>Are procedures in place to ensure that the following Data Quality Objectives are met:</p> <ul style="list-style-type: none"> Use Acceptable Knowledge to delineate TRU mixed waste streams, assess whether TRU mixed wastes comply with the applicable requirements of the TSDF-WAC, assess whether TRU mixed wastes exhibit a hazardous characteristic, assess whether TRU mixed wastes are listed and to estimate waste material parameter weights Use radiography or visual examination to verify the physical form of the waste matches its waste stream description as determined by AK and to verify the absence of prohibited items <p>(Section C-4a(1))</p>					
31	<p>Are procedures in place to ensure that the following Quality Assurance Objectives are adequately defined and assessed for each characterization method:</p> <ul style="list-style-type: none"> Precision as a measure of the mutual agreement among multiple measurements. Accuracy as the degree of agreement between a measurement result and a true or known value. Completeness is a measure of the amount of valid data obtained from a method compared to the total amount of data obtained that is expressed as a percentage. Comparability is the degree to which one data set can be compared to another data set. Representativeness as an expression of the degree to which data represent characteristics of a population. <p>(Section C-4a(2))</p>	CCP-TP-113 Att. 3	Y	BDRs ORNLCHVE0101 ORNLCHVE0102 ORNLCHVE0103 ORNLCHVE0104 ORNLCHVE0108 ORNLCHVE0109 ORNLCHVE0110 (VE-1)	Y	
32	<p>With respect to data generation, are procedures in place to ensure that the generator/storage site's waste characterization program meets the following general requirements:</p> <ul style="list-style-type: none"> Testing data packages and batch data reports must be reported accurately in a pre-approved format, must be maintained in permanent files, and must be traceable? All data must receive a technical review by another qualified operator? <p>(Section C3-4a)</p>	CCP-TP-113 S. 5.0 & Att. 1 & 2	Y	BDRs ORNLCHVE0101 ORNLCHVE0102 ORNLCHVE0103 ORNLCHVE0104 ORNLCHVE0108 ORNLCHVE0109 ORNLCHVE0110 (VE-1)	Y	

	WAP Requirement ¹ ORNL/CCP Recertification Audit A-14-29 Table C6-1 Waste Analysis Plan (WAP) Checklist ¹	Procedure Documented		Example of Implementation/Objective Evidence, as applicable		Comment (e.g., any change in procedure since last audit, etc.)
		Location	Adequate? Y/N (Why?)	Item Reviewed	Adequate? Y/N	
33	Are procedures in place to ensure that the generator/storage site performs validation of waste characterization data for each waste container? (Section C-4)	CCP-TP-113, S. 4.7 & Att. 3	Y	BDRs ORNLCHVE0101 ORNLCHVE0102 ORNLCHVE0103 ORNLCHVE0104 ORNLCHVE0108 ORNLCHVE0109 ORNLCHVE0110 (VE-1)	Y	
34	Are procedures in place to ensure that the generator/storage site has a pre-approved format for reporting waste characterization data? (Section C-4a(3))	CCP-TP-113 Att. 1 & 2	Y	BDRs ORNLCHVE0101 ORNLCHVE0102 ORNLCHVE0103 ORNLCHVE0104 ORNLCHVE0108 ORNLCHVE0109 ORNLCHVE0110 (VE-1)	Y	
35	Are procedures in place to ensure that the generator/storage site prepares testing batch data reports to meet the requirements of their own site-specific QAPjP and/or SOPs? (Section C-4a(3))	CCP-TP-113 S. 4.6	Y	BDRs ORNLCHVE0101 ORNLCHVE0102 ORNLCHVE0103 ORNLCHVE0104 ORNLCHVE0108 ORNLCHVE0109 ORNLCHVE0110 (VE-1)	Y	

	WAP Requirement ¹ ORNL/CCP Recertification Audit A-14-29 Table C6-1 Waste Analysis Plan (WAP) Checklist ¹	Procedure Documented		Example of Implementation/Objective Evidence, as applicable		Comment (e.g., any change in procedure since last audit, etc.)
		Location	Adequate? Y/N (Why?)	Item Reviewed	Adequate? Y/N	
36	<p>Are procedures in place to ensure that all raw data is collected and managed at the data generation level in accordance with the following criteria:</p> <ul style="list-style-type: none"> All raw data shall be signed and dated in reproducible ink by the individual collecting the data, or signed and dated using electronic signatures All data shall be recorded clearly, legibly, and accurately in field records All changes to original data shall be lined out, initialed, and dated by the individual making the change. Original data may not be obliterated or otherwise be made unreadable All data shall be transferred and reduced from field records completely and accurately All field records shall be maintained as specified in Table C-2 of Attachment C Data shall be organized into standard reporting formats for reporting purposes All electronic and video data must be stored to ensure that waste container and QC data are readily retrievable <p>(Section C3-4a)</p>	CCP-TP-113 S. 5.0 & Att. 3	Y	BDRs ORNLCHVE0101 ORNLCHVE0102 ORNLCHVE0103 ORNLCHVE0104 ORNLCHVE0108 ORNLCHVE0109 ORNLCHVE0110 (VE-1)	Y	
37	<p>Are procedures in place to ensure that 100 % of batch data reports are subject to independent technical review by an individual qualified to review the data who was not involved in the generation or recording of the data under review. The reviewer shall release the data through signature with an associated review checklist prior to characterization of the associated waste and shipment to the WIPP. The review shall ensure the following, as applicable:</p> <ul style="list-style-type: none"> Data generation and reduction were conducted according to the methods used and reported in the proper units and significant figures Calculations have been verified by a valid calculation program, a spot check of verified calculation programs, and/or a 100 percent check of all hand calculations The data have been reviewed for transcription errors The testing QA documentation for BDRs is complete and includes, as applicable, raw data, calculation records, calibration records Radiography tapes are reviewed on a waste container basis at a minimum of once per testing batch or once per day of operation, whichever is less frequent. The radiography tape will be reviewed against the data on the radiography form to ensure that data are complete and correct QAOs have been met <p>(Section C3-4a(1))</p>	CCP-TP-113 S. 4.7 & Att. 3	Y	BDRs ORNLCHVE0101 ORNLCHVE0102 ORNLCHVE0103 ORNLCHVE0104 ORNLCHVE0108 ORNLCHVE0109 ORNLCHVE0110 (VE-1)	Y	

	WAP Requirement ¹ ORNL/CCP Recertification Audit A-14-29 Table C6-1 Waste Analysis Plan (WAP) Checklist ¹	Procedure Documented		Example of Implementation/Objective Evidence, as applicable		Comment (e.g., any change in procedure since last audit, etc.)
		Location	Adequate? Y/N (Why?)	Item Reviewed	Adequate? Y/N	
40	<p>Are procedures in place to ensure that 100 percent of all batch data reports receive a Site Project Manager signature release with an associated review checklist prior to characterization of the associated waste and shipment to the WIPP. This release shall ensure the following:</p> <ul style="list-style-type: none"> • Testing batch QC checks were properly performed. Radiography data are complete and acceptable based on evidence of videotape review of one waste container per day or once per testing batch, whichever is less frequent • Data generation level independent technical review, validation, and verification have been performed as evidenced by the completed review checklists and appropriate signature releases. • Independent technical reviewers were not involved in the generation or recording of the data under review. • Batch Data review checklists are complete • Batch Data Reports are complete and data properly reported • Verify that data are within established data assessment criteria and meet all applicable QAOs <p>(Section C3-4b(1))</p>	N/A	N/A	N/A	N/A	Evaluated during A-14-03
42	<p>Are procedures in place to ensure that a repeat of the data review process at the data generation level will be performed on a minimum of one randomly chosen waste container every quarter to determine if the verification and validation is performed according to documented procedures?</p> <p>(Section C3-4b)</p>	N/A	N/A	N/A	N/A	Evaluated during A-14-03
43	<p>Are procedures in place and checklists are available to prepare a Site Project Manager (SPM) Summary and a Data Validation Summary (the summaries may be in the same document)? The SPM Summary includes a validation checklist for each batch that is of sufficient detail to document all aspects of a batch data report that could affect data quality. The Data Validation Summary must identify each Batch Data Report reviewed, describe how the validation was performed, identify all problems, and identify all acceptable and unacceptable data. Summaries must include release signatures.</p> <p>(Section C3-4b(2))</p>	N/A	N/A	N/A	N/A	Evaluated during A-14-03
44	<p>Are procedures in place to ensure that non-administrative, WAP-related nonconformances first identified at the site project manager level are reported to the Permittees within seven calendar days of identification, that nonconformance reports are prepared within 30 calendar days, and that corrective action is implemented prior to waste shipment?</p>	CCP-QP-005, S. 4.4.1 [D.3 & D.4] & Att. 4	Y	N/A	N/A	There were no reportable CH VE NCRs since the previous recertification audit.

	WAP Requirement ¹ ORNL/CCP Recertification Audit A-14-29 Table C6-1 Waste Analysis Plan (WAP) Checklist ¹	Procedure Documented		Example of Implementation/Objective Evidence, as applicable		Comment (e.g., any change in procedure since last audit, etc.)
		Location	Adequate? Y/N (Why?)	Item Reviewed	Adequate? Y/N	
	(Section C3-7)					
45	Are procedures in place to ensure that any waste container for which a nonconformance report (NCR) has been written will not be shipped to the WIPP facility unless the condition that led to the NCR for that container is appropriately identified, reconciled, corrected, and documented? Are nonconformance reports prepared for nonconformances identified? Are nonconformances identified and tracked, and does the Site Project Manager oversee the nonconformance report process? (Section C3-7)	CCP-QP-005, (All)	Y	NCRs evaluated (none of these were reportable): NCR-ORNL-0702-14, R.0 NCR-ORNL-0162-14, R.0 NCR-ORNL-0159-14, R.0 (GEN-1) Contact-Handled (CH) Visual Examination (VE) NCR Log (GEN-2)	Y	
DATA TRANSMITTAL						
48	Are procedures in place to ensure that the generator/storage site transmits data by hard copy or electronic copy from the data generation level to the site project level? If electronic, does the generator/site have a hard copy available on demand? (Section C-4a(5))	N/A	N/A	N/A	N/A	Evaluated during A-14-03
50	Are procedures in place to ensure that the generator/storage site inputs the data into the WWIS manually or electronically? (Section C-4a(5))	N/A	N/A	N/A	N/A	Evaluated during A-14-03
51	Are procedures in place to ensure that the generator/storage site enters the data into the WWIS in the exact format required by the database? (Section C-4a(5))	N/A	N/A	N/A	N/A	Evaluated during A-14-03
52	Are procedures in place to ensure all of the data presented on Table C-3 of the Permit is transmitted to the WWIS? (Table C-3)	N/A	N/A	N/A	N/A	Evaluated during A-14-03
RECORDS AND RECORD MANAGEMENT						
55	Are procedures in place to ensure that the generator/storage site's hard copy and/or electronic data reports follow the Permittees' format requirements? (Section C-4a(3))	N/A	N/A	N/A	N/A	Evaluated during A-14-03
56	Are procedures in place to ensure that hard copy or electronic Waste Stream Profile Form will include the following: <ul style="list-style-type: none">• Generator/storage site name	N/A	N/A	N/A	N/A	Evaluated during A-14-03

	WAP Requirement ¹ ORNL/CCP Recertification Audit A-14-29 Table C6-1 Waste Analysis Plan (WAP) Checklist ¹	Procedure Documented		Example of Implementation/Objective Evidence, as applicable		Comment (e.g., any change in procedure since last audit, etc.)
		Location	Adequate? Y/N (Why?)	Item Reviewed	Adequate? Y/N	
	<ul style="list-style-type: none"> Generator/storage site EPA ID Date of audit report approval by NMED (if obtained) Original generator of waste stream Whether waste is Contact-Handled or Remote-Handled Waste Stream WIPP Identification Number Summary Category Group Waste Matrix Code Group Waste Material Parameter Weight Estimates per unit of waste Waste stream name A description of the waste stream Applicable EPA hazardous waste codes numbers Applicable TRUCON codes A listing of acceptable knowledge documentation used to identify the waste stream The waste characterization procedures used and the reference and date of the procedure Certification signature of Site Project Manager, name, title, and date signed (Section C3-6b(1)) 					
56a	<p>Are procedures in place to ensure that hard copy or electronic Characterization Information Summary will include the following:</p> <ul style="list-style-type: none"> Data reconciliation with DQOs Radiography and visual examination summary to document that all prohibited items are absent in the waste and to verify that the physical form of the waste matches its waste stream description as determined by AK (if applicable) A complete listing of all container identification numbers used to generate the Waste Stream Profile Form, cross-referenced to each Batch Data Report Complete AK summary, including stream name and number, point of generation, waste stream volume (current and projected), generation dates, TRUCON codes, Summary Category Group, Waste Matrix Code(s) and Waste Matrix Code Group, other TWBIR information, waste stream description, areas of operation, generating processes, RCRA determinations, radionuclide information, all references used to generate the AK summary, and any other information required by Permit Attachment 	N/A	N/A	N/A	N/A	Evaluated during A-14-03

	WAP Requirement ¹ ORNL/CCP Recertification Audit A-14-29 Table C6-1 Waste Analysis Plan (WAP) Checklist ¹	Procedure Documented		Example of Implementation/Objective Evidence, as applicable		Comment (e.g., any change in procedure since last audit, etc.)
		Location	Adequate? Y/N (Why?)	Item Reviewed	Adequate? Y/N	
	C4, Section C4-2b. <ul style="list-style-type: none"> Method for determining Waste Material Parameter Weights per unit of waste. List of any AK Sufficiency Determinations requested for the waste stream Certification through acceptable knowledge or testing that any waste assigned the hazardous waste number of U134 (hydrofluoric acid) no longer exhibits the characteristic of corrosivity. This is verified by ensuring that no liquid is present in U134 waste. A justification for the selection of radiography and/or VE as an appropriate method of characterizing the waste. (Section C3-6b(2))					
56b	Are procedures in place to assure that ongoing container characterization results are cross referenced to Batch Data Reports? (Section C3-6b)	N/A	N/A	N/A	N/A	Evaluated during A-14-03
58	Are procedures in place to ensure that project level reports are compiled into Characterization Information Summaries? (Section C3-6b)	N/A	N/A	N/A	N/A	Evaluated during A-14-03
59	Are procedures in place to ensure that the generator/storage site uses forms for data reporting that are pre-approved forms in site-specific documentation? (Section C3-6)	CCP-TP-113 Att. 1, 2, & 3	Y	BDRs ORNLCHVE0101 ORNLCHVE0102 ORNLCHVE0103 ORNLCHVE0104 ORNLCHVE0108 ORNLCHVE0109 ORNLCHVE0110 VE-1	Y	
60	Are procedures in place to ensure that the generator/storage site's site project manager submits to the WIPP facility a summary of the waste stream information and reconciliation with data quality objectives (DQOs) once a waste stream is characterized? (Section C-4a(5))	N/A	N/A	N/A	N/A	Evaluated during A-14-03
61	Are procedures in place to ensure that the generator/storage site project office completes a WSPF based on the Batch Data Reports? (C3-6b)	N/A	N/A	N/A	N/A	Evaluated during A-14-03
62	Are procedures in place to ensure that the generator/storage Site Project Manager submits the WSPF to the Permittees for DOE's approval along with the	N/A	N/A	N/A	N/A	Evaluated during A-14-03

	WAP Requirement ¹ ORNL/CCP Recertification Audit A-14-29 Table C6-1 Waste Analysis Plan (WAP) Checklist ¹	Procedure Documented		Example of Implementation/Objective Evidence, as applicable		Comment (e.g., any change in procedure since last audit, etc.)
		Location	Adequate? Y/N (Why?)	Item Reviewed	Adequate? Y/N	
	accompanying Characterization Information Summary for that waste stream? (Section C-4a(5))					
63	Are procedures in place to ensure that the generator/storage site maintains records related to waste characterization testing activities in the testing facility files, or site project files for those facilities located on-site? (Section C-4a(6))	CCP-QP-008, (All) CCP-QP-028, (All)	Y	CH Records Inventory and Disposition Schedule (RIDS) dated 08/01/2013 (GEN-3)	Y	
64	Are procedures in place to ensure that the appropriate documented training and indoctrination is performed for all individuals and that procedures are documented in site specific QAPjPs and procedures? (Section C3-8)	CCP-PO-001, (All) CCP-QP-002, S. 4.0	Y	Qualification records for selected CCP personnel (GEN-4) CCP – ORNL List of Qualified Individuals dated 07/24/2014 (GEN-5)	Y	
66	Are procedures in place to ensure that the generator/storage site has an appropriate records inventory and disposition schedule (RIDS) or equivalent that was prepared and approved by appropriate site personnel? (Section C-4a(6))	CCP-QP-008, S. 3.1.2 CCP-QP-028, S. 3.1.1	Y	CH Records Inventory and Disposition Schedule (RIDS) dated 08/01/2013 (GEN-3)	Y	
67	Are procedures in place to ensure that the generator/storage site maintains all records relevant to an enforcement action, regardless of disposition, until they are no longer needed for enforcement action, and then dispositioned per the approved RIDS? (Section C-4a(6))	CCP-QP-008, S. 4.15.1 (NOTE) CCP-QP-028, (All)	Y	CH Records Inventory and Disposition Schedule (RIDS) dated 08/01/2013 (GEN-3)	Y	
68	Are procedures in place to ensure that the generator/storage site maintains records that are designated as Lifetime Records for the life of the waste characterization program plus six years or that the records have been transferred to the WIPP Records Archive facility? Lifetime Records include: <ul style="list-style-type: none"> • Test facility Batch Data Reports, • Waste Stream Characterization Package, • Data reduction, validation, and reporting documentation, • Acceptable knowledge documentation, • WSPF and Characterization Information Summary (Section C-4a(6), Table C-2)	CCP-PO-001, S. C-4a(6) TABLE C-2 CCP-QP-008, S. 2.3.11 & 4.10.1 (2 nd NOTE) CCP-QP-028, (All)	Y	CH Records Inventory and Disposition Schedule (RIDS) dated 08/01/2013 (GEN-3)	Y	
69	Are procedures in place to ensure that the generator/storage site maintains records that are designated as Non-Permanent Records for ten years from the date of	CCP-PO-001, S. C-4a(6),	Y	CH Records Inventory and Disposition Schedule	Y	

	WAP Requirement ¹ ORNL/CCP Recertification Audit A-14-29 Table C6-1 Waste Analysis Plan (WAP) Checklist ¹	Procedure Documented		Example of Implementation/Objective Evidence, as applicable		Comment (e.g., any change in procedure since last audit, etc.)
		Location	Adequate? Y/N (Why?)	Item Reviewed	Adequate? Y/N	
	<p>record generation, and then dispositioned according per the approved RIDs or transferred to the WIPP Records Archive facility?</p> <p>Non-Permanent Records include:</p> <ul style="list-style-type: none"> • Nonconformance documentation, • Variance documentation, • Assessment documentation, • Calculations and related software documentation, • Training/qualification documentation, • QAPJP documentation (all revisions), • Calibration documentation, • Procurement documentation, • QA procedures (all revisions), • Technical implementing procedures (all revisions), and • Audio/video recording (radiography, visual, etc.). <p>(Section C-4a(6), Table C-2)</p>	<p>TABLE C-2</p> <p>CCP-QP-008, S. 2.3.17 & 4.10.1 (2nd NOTE)</p> <p>CCP-QP-028, (All)</p>		(RIDS) dated 08/01/2013 (GEN-3)		
70	<p>Are procedures in place to ensure that the generator/storage site has raw data that is identifiable and legible, and provides documentary evidence of quality?</p> <p>(Section C-4a(6))</p>	CCP-TP-113 Att. 1, 2 & 3	Y	<p>BDRs</p> <p>ORNLCHVE0101 ORNLCHVE0102 ORNLCHVE0103 ORNLCHVE0104 ORNLCHVE0108 ORNLCHVE0109 ORNLCHVE0110</p> <p>(VE-1)</p>	Y	
71	<p>Are procedures in place to ensure that if the generator/storage site ceases to operate, that all records be transferred before closeout?</p> <p>(Section C-4a(6))</p>	CCP-QP-008, S. 4.10.2	Y	N/A	N/A	This site has not ceased operations.
SHIPMENT						
72	<p>Are procedures in place to ensure that the generator/storage site accurately completes an EPA Hazardous Waste Manifest prior to shipping the waste to WIPP that contains the following information:</p> <ul style="list-style-type: none"> • Generator/storage site name and EPA ID • Generator/storage site contact name and phone number • Quantity of waste • List of up to six state and/or federal hazardous waste numbers in each line 	N/A	N/A	N/A	N/A	Evaluated during A-14-03

	WAP Requirement ¹ ORNL/CCP Recertification Audit A-14-29 Table C6-1 Waste Analysis Plan (WAP) Checklist ¹	Procedure Documented		Example of Implementation/Objective Evidence, as applicable		Comment (e.g., any change in procedure since last audit, etc.)
		Location	Adequate? Y/N (Why?)	Item Reviewed	Adequate? Y/N	
	item <ul style="list-style-type: none"> • Listing of all container IDS • Signature of authorized generator representative (Section C-5b)					
73	Are procedures in place to ensure that the generator/storage site accurately completes the following container specific information: <ul style="list-style-type: none"> • Waste stream identification number • List of hazardous waste numbers per container • Certification data • Shipping data (Section C-5b)	N/A	N/A	N/A	N/A	Evaluated during A-14-03

1. The WAP requirements should be presented in documents, such as procedures. Each of the questions posed under WAP requirements is meant to ask whether procedures are in place or whether documents are evident which demonstrate that the specific WAP requirement is or can be met.



GENI



Controlled
Copy

CCP-QP-005, Rev. 24

Effective Date: 04/29/2014

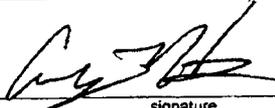
CCP TRU Nonconforming Item Reporting and Control

Page 38 of 49

Attachment 1 – CCP Nonconformance Report (NCR)

CCP NONCONFORMANCE REPORT (NCR)

(Use NCR Continuation, Attachment 3, if necessary)

NCR No. NCR-ORNL- 0702 -14		Revision 0
1. Lot No., Heat No., or Serial No. (if applicable): N/A	2. Process (e.g., NDA, NDE, VE, Other): VE	3. Batch Data Report #(s): ORVECH0101 Container #(s): X10C9311429D1
4. Order/Work Order/Job Control Number (if applicable): N/A	5. PO # (if applicable): N/A	
	6. Supplier (if applicable): N/A	
DESCRIPTION OF NONCONFORMANCE		
7a. NCR Description: <input type="checkbox"/> < 100 nCi/g <input type="checkbox"/> Prohibited Item <input type="checkbox"/> E-Flag <input type="checkbox"/> Receipt Inspection <input type="checkbox"/> Transportation <input type="checkbox"/> WWIS/WDS <input checked="" type="checkbox"/> Other		
7b. Requirement(s) (Enter Implementing Procedure No., Revision, Section No., & Quoted Text): CCP-QP-016, Rev. 19, Section 3.1.1 Verifies M&TE is on the current approved M&TE list on secure file transfer protocol (SFTP) web site (searchable by equipment number) and checks current cal sticker with information on approved list for accuracy. CCP-TP-113, Rev. 18, Section 4.4.14 "Record the Gross Weight by weighing the Output Waste Container after it is released to be moved to its staging area, in Section 1 of Attachment 2."		
7c. Actual Condition: The container scale and the calibrated test weight were not listed on the M&TE list. This subsequently caused the weight listed on the attachment 2 of CCP-TP-113 to be invalid.		
7d. Have the CCP HOLD TAGS associated with this NCR been applied? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO If no is checked, explain:		
8. NCR Originator: Anthony Harley  5-28-14 printed name signature date		
9. Does the identified condition have the potential to impact AK? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> INDETERMINATE If YES or INDETERMINATE, enter Trend Code L in Block 10.		
10. Trend Code: A	11. Responsible Manager: Andrew Stallings	
12. Significant Condition? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO (If Yes, enter WIPP Form No.): WF-14-145	13. Recurring Condition? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO (If Yes, list NCRs and WIPP Forms):	
14. QA Engineer or QA Designee validation: LaTravia Harmon  5-28-14 printed name signature date		

COPY

NTPC RECORDS ORIGINAL
DATE REC'D 7-10-14GL

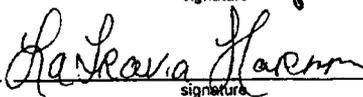
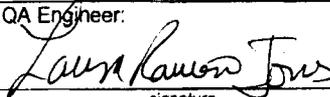
Attachment 1 – CCP Nonconformance Report (NCR) (Continued)

NCR No. NCR-ORNL- 0702 -14 Revision 0		
INTERIM DISPOSITION		
15a. Interim Disposition (Check Only One):		
<input checked="" type="checkbox"/> N/A (See Final Disposition)	<input type="checkbox"/> Hold	<input type="checkbox"/> Conditionally Accept
<input type="checkbox"/> Sort	<input type="checkbox"/> Reinspect or Retest	<input type="checkbox"/> Conditionally Use
<input type="checkbox"/> Remediate		
15b. Instructions for Completion of the Interim Disposition:		
INTERIM DISPOSITION APPROVALS		
16a. Responsible Manager or Individual:		
_____	_____	_____
printed name	signature	date
16b. QA Engineer or QA Designee:		
_____	_____	_____
printed name	signature	date
Additional Approval:		
_____	_____	_____
printed name	signature	date
Additional Approval:		
_____	_____	_____
printed name	signature	date
COMPLETION OF INTERIM DISPOSITION		
17. Interim Disposition Complete – Responsible Manager or Individual:		
_____	_____	_____
printed name	signature	date
18. Interim Disposition Verified – QA Engineer:		
_____	_____	_____
printed name	signature	date

Attachment 1 – CCP Nonconformance Report (NCR) (Continued)

NCR No. NCR-ORNL- 0702 -14 Revision 0		
FINAL DISPOSITION		
19. Final Disposition (Check Only One: Use-As-Is, Repair, Reject, Rework, or Scrap): <input type="checkbox"/> Use-As-Is <input type="checkbox"/> Repair		
19a. Technical Justification – Required for <u>Use-As-Is</u> or <u>Repair</u> dispositions. [<input checked="" type="checkbox"/> N/A for Reject, Rework, or Scrap]		

<input type="checkbox"/> Reject <input checked="" type="checkbox"/> Rework <input type="checkbox"/> Scrap		
19b. Instructions for Completion – Required for <u>Reject</u> , <u>Repair</u> , <u>Rework</u> , or <u>Scrap</u> [<input type="checkbox"/> N/A for Use-As-Is]		
1. Ensure the container scale and check weight is added to the current M&TE listing.		
2. Re-weight container.		

19c. Corrective Actions (Actions to Prevent Recurrence – For <u>Repair</u> or <u>Rework</u> , if applicable. [<input checked="" type="checkbox"/> N/A if not applicable, and for Use-As-Is, Reject, and Scrap]		
FINAL DISPOSITION APPROVALS		
20. Responsible Manager or Individual:		
<u>Andrew Stallings</u> <small>printed name</small>	 <small>signature</small>	<u>5/28/14</u> <small>date</small>
21. QA Engineer or QA Designee:		
<u>LaTravia Harmon</u> <small>printed name</small>	 <small>signature</small>	<u>5/28/14</u> <small>date</small>
Additional Approval:		
_____	_____	_____
<small>printed name</small>	<small>signature</small>	<small>date</small>
Additional Approval:		
_____	_____	_____
<small>printed name</small>	<small>signature</small>	<small>date</small>
CLOSURE		
22. Final Disposition Complete - Responsible Manager or Individual:		
<u>BSSchrock</u> <small>printed name</small>	 <small>signature</small>	<u>7/1/14</u> <small>date</small>
23. Attachments: <u>1 and 2 - Basis for NCR Closure. 3 - Basis for Closure</u>		
24a. HOLD TAG removal has been verified and reconciled for all nonconforming items on the NCR: <input checked="" type="checkbox"/>		
24b. If HOLD TAG is not applicable, check: <input type="checkbox"/> and explain:		
<u>See Attachment 3.</u>		
25. Final Disposition Verified – NCR Closed QA Engineer:		
<u>Laura R. Jones</u> <small>printed name</small>	 <small>signature</small>	<u>07/09/14</u> <small>date</small>

Attachment 1 – CCP Waste Visual Examination General Information Form

Batch Data Report No.: ORVECH0101

<input checked="" type="checkbox"/> VE for Previously Packaged Waste <input type="checkbox"/> VE for Newly Generated Waste	
<input type="checkbox"/> Method 1 <input checked="" type="checkbox"/> Method 2	
Site ID: <u>OR</u>	
Examination Date: <u>5-27-14</u>	
Procedure No.: <u>CCP-TP-113</u> Revision No.: <u>18</u>	
Camera/Audio/Video Media	
Recording Check: <input checked="" type="checkbox"/> N/A <input type="checkbox"/> SAT	
VE Scale Information: <input checked="" type="checkbox"/> N/A	Serial/ID Number: Calibration Due Date: Operational Check: <input type="checkbox"/> SAT <input type="checkbox"/> UNSAT
Test Weight Information	Serial/ID Number: Calibration Due Date:
Test Weight Total: kg.	Serial/ID Number: Calibration Due Date:
Tray Weight: kg.	Serial/ID Number: Calibration Due Date:
Container Scale Information:	Serial/ID Number: <u>WIPP-003</u> Calibration Due Date: <u>6-18-14</u> Operational Check: <input checked="" type="checkbox"/> SAT <input type="checkbox"/> UNSAT
Comments: <p>The VEE has determined that the VE scales will not be used.</p>	
Visual Examination Operator 1: <u>Clayton Wallace</u> Print Name	<u>[Signature]</u> Signature
	<u>5-28-14</u> Date
Visual Examination Operator 2: <u>Jason Coker</u> Print Name	<u>[Signature]</u> Signature
	<u>5-28-14</u> Date

NCR ORNL-0702-14-0

Attachment 1 Page 1 of 7

Attachment 1 – CCP Waste Visual Examination General Information Form

Batch Data Report No.: DRVECH0101

<input checked="" type="checkbox"/> VE for Previously Packaged Waste <input type="checkbox"/> VE for Newly Generated Waste	
<input type="checkbox"/> Method 1 <input checked="" type="checkbox"/> Method 2	
Site ID: <u>OR</u>	
Examination Date: <u>5-27-14</u>	
Procedure No.: <u>CCR-TP-113</u> Revision No.: <u>18</u>	
Camera/Audio/Video Media Recording Check: <input checked="" type="checkbox"/> N/A <input type="checkbox"/> SAT	
VE Scale Information: <input checked="" type="checkbox"/> N/A Serial/ID Number: _____ Calibration Due Date: _____ Operational Check: <input type="checkbox"/> SAT <input type="checkbox"/> UNSAT	
Test Weight Information Test Weight Total: _____ kg. Tray Weight: _____ kg. Serial/ID Number: _____ Calibration Due Date: _____	
Container Scale Information: _____ Serial/ID Number: <u>WIPP-003</u> Calibration Due Date: <u>6-18-14</u> Operational Check: <input checked="" type="checkbox"/> SAT <input type="checkbox"/> UNSAT	
Comments: <p>The VEE has determined that the VE scale will not be used.</p>	
Visual Examination Operator 1: <u>Chuck Wallace</u> <u>[Signature]</u> <u>5-27-14</u> Print Name Signature Date	
Visual Examination Operator 2: <u>Jason Cole</u> <u>[Signature]</u> <u>5-27-14</u> Print Name Signature Date	

NCR 06NL-0702-14-C
Attachment 1 Page 2 of 7

SUPERCEDED

Attachment 2 – CCP Waste Visual Examination Data Form (continued) Page 5 of 5

Batch Data Report No.: ORVECH0101 Output Waste Container ID: X10C9311429D1

Section 4: Comments (Required for all examinations)

Comments:
N/A

Visual Examination Operator 1:
Chuck Wallace
Print Name *Chuck Wallace*
Signature 05/27/14
Date

Visual Examination Operator 2:
Jason Coker
Print Name *Jason Coker*
Signature 06/19/14
Date

NCR ORNL-0702-14-0

Attachment 1 Page 3 of 7

Attachment 5 – CCP Waste VE Batch Data Report Cover Sheet

Batch Data Report No.: DRUECH0101

Examination Date: 05/27/14

Waste Container ID Number	
1	X10C9311489D1
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	

Independent Technical Reviewer:

<u>Derek Matheny</u>	<u>Derek Matheny</u>	<u>6/3/14</u>
Print Name	Signature	Date

Derek Matheny 6/19/14

Attachment 3 – CCP Waste VE Independent Technical Reviewer Checklist (continued)

Batch Data Report No.: ORVECH0101

Page 2 of 2

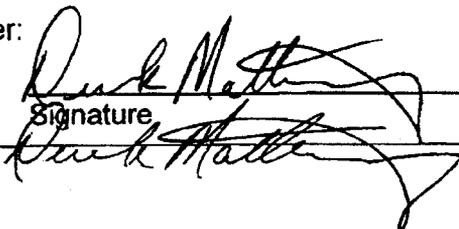
Description			
14. Was the waste in the Output Waste Container(s) examined for prohibited items?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
15. Is there an adequate written description of the contents of each item?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
16. Were the scale(s) in calibration prior to the VE and documented correctly?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
17. Were the scale checks SAT prior to the VE and documented correctly?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
18. Was the audio/video media recording properly prepared and labeled for each waste container?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> N/A
19. Was the audio/video media recording check performed satisfactorily prior to the VE?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> N/A
20. Precision: Was precision maintained by reconciling any discrepancies between the operator and the independent technical reviewer with regard to identification of waste matrix code, liquids in excess of TSDF-WAC limits, and compressed gases?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
21. Accuracy: Was accuracy maintained by requiring operators to pass a comprehensive examination and demonstrate satisfactory performance in the presence of the VE expert during their initial qualification and subsequent requalification (operators on LOQI)?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
22. Completeness: Is there a completed VE data form for each waste container in the BDR?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
23. Were NCRs initiated as required?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A

Comments: *For questions 16-17 please refer to NCR # NCR-ORNL-0702-14.*

I have reviewed 100 percent of the container-specific and batch data in this report and find it acceptable.

Independent Technical Reviewer:

Derek Matheny
Printed Name


Signature

6/13/14
Date

6/19/14

NCR ORNL-0702-14-0

Attachment 1 Page 5 of 7

Attachment 1 – CCP SPM Visual Examination Project Level Validation Checklist and Summary

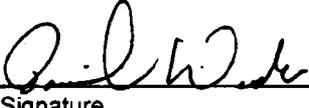
BDR Number: <u>ORVECH0101</u>		Examination Date(s): <u>05/27/2014</u>		
Description of Criteria Reviewed	Criteria Met?			Comments/Qualifiers
	YES	NO	NA	
1. Is the completed, signed and dated Independent Technical Reviewer Checklist included in the BDR, and the independent technical reviewer was not involved in the generation or recording of the data under review? Reference Source: CCP-PO-001, C3-4	X			
2. Does the BDR contain all items addressed in the BDR Table of Contents? Reference Source: CCP-PO-001, C3-4	X			
3. Does the BDR include a listing of all container numbers in the batch? Reference Source: CCP-PO-001, C3-4	X			
4. List all containers that have met QAOs. Reference Source: CCP-PO-001, C3-4				Container Numbers: X10C9311429D1
5. Is the current implementing procedure and revision number included in the BDR? Reference Source: CCP-PO-001, Table C3-3	X			
6. Is the BDR date included? Reference Source: CCP-PO-001, Table C3-3	X			
7. Is there a reference to or copy of any associated NCRs (if any) in the BDR? Reference Source: CCP-PO-001, Table C3-3	X			NCR-ORNL-0702-14 NCR-ORNL-0159-14
8. Are there 20 or fewer containers in the batch? Reference Source: CCP-PO-001 C3-4	X			
9. Are the data properly reported (i.e., data are reported in correct units and with correct significant figures). Reference Source: CCP-PO-001 C3-4	X			
10. Is there evidence of verification that the physical form matches the Waste Matrix Code? Reference Source: CCP-PO-001, Table C3-3	X			
11. Is there evidence of verification that the physical form matches the waste stream description? Reference Source: CCP-PO-001, Table C3-3	X			
12. Are prohibited items absent? Reference Source: CCP-PO-001, Table C3-3	X			

NCR ORNL-0702-14-0

Attachment 1 Page 6 of 7

NTPC RECORDS ORIGINAL
DATE REC'D 10-25-14 GL

Attachment 1 – CCP SPM Visual Examination Project Level Validation Checklist and Summary (Continued)

BDR Number: <u>ORVECH0101</u>		Examination Date(s): <u>05/27/2014</u>		
Description of Criteria Reviewed	Criteria Met?			Comments/Qualifiers
	YES	NO	NA	
29. For LANL Sealed Sources, is each sealed source a rigid sealed container less than or equal to 4 L in size or in a rigid sealed container less than or equal to 4 L? Reference Source: CCP Technical Procedures			X	Not a LANL Sealed Source.
30. For LANL Sealed Sources, AK documentation does not indicate the use of volatile organic compounds (VOCs) or VOC-bearing materials as constituents of sealed sources? Reference Source: CCP Technical Procedures			X	Not a LANL Sealed Source.
31. For LANL Sealed Sources, the outer casing of each sealed source is of a non VOC-bearing material which is verified using the VE technique at the time of packaging? Reference Source: CCP Technical Procedures			X	Not a LANL Sealed Source.
Comments: NCR-ORNL-0159-14 attached as SPM-1, SPM-2, and SPM-3.				
The container QC checks were properly performed and meet the Quality Assurance Objectives (QAOs). Proper procedures were followed during data reduction and analysis. The batch is complete, acceptable, and includes all supporting data and documentation required by the QAPjP.				
Daniel Wade				06/25/2014
SPM Printed Name		Signature		Date

Checklist is to be re-signed only when a re-review is performed.

_____	_____	_____	_____
SPM Printed Name	Signature	Reason	Date
_____	_____	_____	_____
SPM Printed Name	Signature	Reason	Date

NCR ORNL-0702-14-0
Attachment 1 Page 7 of 7

Batch Data Report No.: ORVECH0101

Input Waste Container ID, as applicable: <u>X10C9311429D</u>	
Output Waste Container ID: <u>X10C9311429D1</u>	Waste Stream ID: <u>OR-ISTP-CH-HET</u>
Container Type: <u>55 Gallon</u>	TRUCON Code: <u>OR 125/225</u> Waste Matrix Code: <u>S5400</u>
Audio/Video Media Recording Number: <input checked="" type="checkbox"/> N/A	
Waste Container Weights: Tare Wt: <u>33.2</u> kg. Gross Wt: <u>74.0</u> kg.	
Rigid Liner Present? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES Type of Liner: <input type="checkbox"/> Lead <input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Fiberboard <input type="checkbox"/> Other: Thickness: <input type="checkbox"/> 30-mil <input checked="" type="checkbox"/> 90-mil <input type="checkbox"/> 110-mil <input type="checkbox"/> 125-mil <u>CW 06/19/14</u>	Rigid Liner Lid Present? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES Rigid Liner Lid is Vented (>0.3 in.) or Filtered? <input type="checkbox"/> NO <input type="checkbox"/> YES <input checked="" type="checkbox"/> N/A <input type="checkbox"/> Vented: Hole Size: <input checked="" type="checkbox"/> N/A <input type="checkbox"/> Filtered: Model No.: <input checked="" type="checkbox"/> N/A Serial No.: <input checked="" type="checkbox"/> N/A
Bag Liner Present? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES	Volume Utilization Percentage: <u>100</u> %
Does the physical form of the waste match the Waste Stream Description (i.e., Homogeneous Solids, Soil/Gravel, or Debris Waste [including uncategorized metals])? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES	
Does the physical form of the waste match the Waste Matrix Code? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES	
Closure Method: <u>TT</u> Number of Layers of Confinement: <u>1</u>	
Filter Torque Wrench Serial/ID No.: <u>1208070374/WEP126</u> Calibration Due Date: <u>07/18/14</u> <u>CW 06/02/14</u> Filter: Model No.: <u>00234 UT9439X 00234</u> Serial No.: <u>479424X 0132</u> <u>CW 05/09/14</u> Torque Value: <u>67 ft lbs.</u> <u>CW 04/02/14</u> <u>72 ft lbs.</u>	Lid Ring/Bolt Torque Wrench Serial/ID No.: <u>WEP149</u> Calibration Due Date: <u>08/12/14</u> Lid Ring/Bolt Torque Value: <u>60 Ft lbs</u>
Is total dose rate greater than 200mrem/hr? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES	
NCR(s) associated with the output container? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES NCR No.: <u>NCR-ORNL-0702-14</u> NCR No.: <u>NIA</u>	
Comments: <u>The container scale was not listed on the M+TE list.</u>	

NCR ORNL-0702-14-0

Attachment 2 Page 1 of 1

Jones, Laura - NWP

From: Harmon, Latravia <Latravia.Harmon@truproject.com>
Sent: Wednesday, July 09, 2014 8:54 AM
To: Jones, Laura - NWP
Subject: RE: Hold tab to be pulled NCR-ORNL-0702-14

7/9/14

Laura

Hold tag for NCR-ORNL-0702-14 has been pulled. Please use this notification to close.

Thanks

LaTravia N. Harmon
Quality Assurance Engineer
Nuclear Waste Partnership LLC
Contractor to the United States Department of Energy
(865)576-1650 Office
(865)441-2706 Cell
latravia.harmon@truproject.com

From: Jones, Laura - NWP [laura.jones@wipp.ws]
Sent: Wednesday, July 09, 2014 10:49 AM
To: Harmon, Latravia
Subject: FW: Hold tab to be pulled NCR-ORNL-0702-14

Here you go...

Thanks and Best Regards

Laura R. Jones
Quality Assurance NCR Coordinator
Nuclear Waste Partnership LLC
Contractor for the U.S. Department of Energy
Office: (575) 234-7244
Email: laura.jones@wipp.ws<<mailto:laura.jones@wipp.ws>>
Fax: (575) 234-7071
[\[cid:image001.png@01CDBBFB.C17506F0\]\[cid:3D435293D3D181458A57AE8F3DBEEFD6@wipp.ws\]](#)

NCR - ORNL-0702-14 Rev. 0
Attachment 3 Page 1 of 2

From: Jones, Laura - NWP
Sent: Wednesday, July 02, 2014 10:25 AM
To: Harmon, Latravia
Cc: Waldram, Veronica - NWP; Walker, Mak (Maryann) - NWP; Schrock, Beverly - NWP; Wade, Daniel NWP
Subject: Hold tab to be pulled NCR-ORNL-0702-14

Latravia – Container X10C9311429D1 has been resolved at the project office, please remove hold tag and notify to close NCR.

BDR ID Container ID Release Code Reason NCR
ORVECH0101 X10C9311429D1 Resolved Instructions for final disposition have been completed. NCR-ORNL-0702-14

Thanks and Best Regards

Laura R. Jones
Quality Assurance NCR Coordinator
Nuclear Waste Partnership LLC
Contractor for the U.S. Department of Energy
Office: (575) 234-7244
Email: laura.jones@wipp.ws<mailto:laura.jones@wipp.ws>
Fax: (575) 234-7071
[\[cid:image001.png@01CDBBFB.C17506F0\]\[cid:B60EF20100ABA34BB70C6BF021038CA2@wipp.ws\]](#)

NCR-ORNL-0702-14 Rev. 0

Attachment 3 Page 2 of 2

DIVIDER

PAGE

Attachment 1 – CCP Nonconformance Report (NCR)

CCP NONCONFORMANCE REPORT (NCR)

(Use NCR Continuation, Attachment 3, if necessary)

NCR No. NCR-ORNL-0162-14		Revision 0	
1. Lot No., Heat No., or Serial No. (if applicable): N/A	2. Process (e.g., NDA, NDE, VE, Other): VE	3. Batch Data Report #(s): ORVECH0105	
4. Order/Work Order/Job Control Number (if applicable): N/A	5. PO # (if applicable): N/A	Container #(s): N/A	
	6. Supplier (if applicable): N/A		
DESCRIPTION OF NONCONFORMANCE			
7a. NCR Description: <input type="checkbox"/> < 100 nCi/g <input type="checkbox"/> Prohibited Item <input type="checkbox"/> E-Flag <input type="checkbox"/> Receipt Inspection <input type="checkbox"/> Transportation <input type="checkbox"/> WWISWDS <input checked="" type="checkbox"/> Other			
7b. Requirement(s) (Enter Implementing Procedure No., Revision, Section No., & Quoted Text): CCP-TP-113, CCP Standard Contact-Handled Waste Visual Examination Procedure, Rev. 18, Section 4.7.1, instructs the ITR to "Review the BDR to the criteria in Attachment 3, AND document." 07/16/14 LAT			
7c. Actual Condition: On question 12 of Attachment 3, "Were data changes made by the individual who originally collected the data or an equally qualified individual?" The ITR answered "N/A". There were changes made by the individual who originally collected the data.			
7d. Have the CCP HOLD TAGS associated with this NCR been applied? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO If no is checked, explain: No containers are associated with this NCR. 07/16/14 LAT			
8. NCR Originator: Daniel Wade <i>D. Wade</i> 07/16/2014 printed name signature date			
9. Does the identified condition have the potential to impact AK? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> INDETERMINATE If YES or INDETERMINATE, enter Trend Code L in Block 10.			
10. Trend Code: A	11. Responsible Manager: Beverly Schrock		
12. Significant Condition? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO (If Yes, enter WIPP Form No.):	13. Recurring Condition? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO (If Yes, list NCRs and WIPP Forms):		
14. QA Engineer or QA Designee validation: <i>Laura Ravens Jones</i> <i>Laura Ravens Jones</i> 07/16/2014 printed name signature date			

COPY

Attachment 1 – CCP Nonconformance Report (NCR) (Continued)

NCR No. NCR-ORNL-0162-14			Revision 0		
INTERIM DISPOSITION					
15a. Interim Disposition (Check Only One):					
<input checked="" type="checkbox"/> N/A (See Final Disposition)		<input type="checkbox"/> Hold	<input type="checkbox"/> Conditionally Accept		<input type="checkbox"/> Conditionally Use
		<input type="checkbox"/> Sort	<input type="checkbox"/> Reinspect or Retest		<input type="checkbox"/> Remediate
15b. Instructions for Completion of the Interim Disposition:					
INTERIM DISPOSITION APPROVALS					
16a. Responsible Manager or Individual:					
_____		_____		_____	
printed name		signature		date	
16b. QA Engineer or QA Designee:					
_____		_____		_____	
printed name		signature		date	
Additional Approval:					
_____		_____		_____	
printed name		signature		date	
Additional Approval:					
_____		_____		_____	
printed name		signature		date	
COMPLETION OF INTERIM DISPOSITION					
17. Interim Disposition Complete – Responsible Manager or Individual:					
_____		_____		_____	
printed name		signature		date	
18. Interim Disposition Verified – QA Engineer:					
_____		_____		_____	
printed name		signature		date	

Attachment 1 – CCP Nonconformance Report (NCR) (Continued)

NCR No. NCR-ORNL-0162-14			Revision 0		
FINAL DISPOSITION					
19. Final Disposition (Check Only One: Use-As-Is, Repair, Reject, Rework, or Scrap): <input type="checkbox"/> Use-As-Is <input type="checkbox"/> Repair					
19a. Technical Justification – Required for <u>Use-As-Is</u> or <u>Repair</u> dispositions. [<input checked="" type="checkbox"/> N/A for Reject, Rework, or Scrap]					

<input type="checkbox"/> Reject <input checked="" type="checkbox"/> Rework <input type="checkbox"/> Scrap					
19b. Instructions for Completion – Required for <u>Reject</u> , <u>Repair</u> , <u>Rework</u> , or <u>Scrap</u> [<input type="checkbox"/> N/A for Use-As-Is]					
1.) VE-ITR, make needed corrections.					
2.) VE-ITR review.					
3.) SPM review.					

19c. Corrective Actions (Actions to Prevent Recurrence – For <u>Repair</u> or <u>Rework</u> , if applicable. [<input checked="" type="checkbox"/> N/A if not applicable, and for Use-As-Is, Reject, and Scrap]					
FINAL DISPOSITION APPROVALS					
20. Responsible Manager or Individual:					
_____		B Schrock		7/16/14	
printed name		signature		date	
21. QA Engineer or QA Designee:					
Laura R. Jones		Laura R. Jones		7/16/2014	
printed name		signature		date	
Additional Approval:					
_____		_____		_____	
printed name		signature		date	
Additional Approval:					
_____		_____		_____	
printed name		signature		date	
CLOSURE					
22. Final Disposition Complete - Responsible Manager or Individual:					
_____		_____		_____	
printed name		signature		date	
23. Attachments: 1.- Email Documenting Reportability.					
24a. HOLD TAG removal has been verified and reconciled for all nonconforming items on the NCR: <input type="checkbox"/>					
24b. If HOLD TAG is not applicable, check: <input type="checkbox"/> and explain:					
25. Final Disposition Verified – NCR Closed QA Engineer:					
_____		_____		_____	
printed name		signature		date	

Jones, Laura - NWP

From: Ramirez, Mike - NWP
Sent: Wednesday, July 16, 2014 12:08 PM
To: Jones, Laura - NWP
Subject: RE: New NCR-ORNL-0162-14

No CBFO notification needed

Mike Ramirez
Central Characterization Project
Nuclear Waste Partnership LLC
Contractor for the U.S. Department of Energy
(575)-234-7034

From: Jones, Laura - NWP
Sent: Wednesday, July 16, 2014 11:10 AM
To: Harmon, Latravia; Harmon, LaTravia - NWP; Leos, Greta - TFE; Navarrete, Leon - TFE; Percy, Sheila - Stoller; Ramirez, Mike - NWP; Schrock, Beverly - NWP; Stallings, Andrew - ORNL; Wade, Daniel NWP
Cc: Waldram, Veronica - NWP; Walker, Mak (Maryann) - NWP; Jones, Laura - NWP
Subject: New NCR-ORNL-0162-14

All – For your information
Mike – Please review for notification purposes
Greta – Please post this open NCR.

Thanks and Best Regards

Laura R. Jones
Quality Assurance NCR Coordinator
Nuclear Waste Partnership LLC
Contractor for the U.S. Department of Energy
Office: (575) 234-7244
Email: laura.jones@wipp.ws
Fax: (575) 234-7071



NCR ORNL-0162-14 Rev. 0

Attachment 1 Page 1 of 2

Jones, Laura - NWP

From: IDC <SQLMaster@wipp.ws>
Sent: Wednesday, July 16, 2014 12:08 PM
To: DL CCP QA CBFO Notify
Subject: Project Office NCR [NCR-ORNL0162140] was just reviewed.

Certification Manager/Designee has just reviewed the project office NCR NCR-ORNL0162140 and has indicated that it [should **NOT**] be reported to CBFO. IDC has already updated the NCR for you.

NCR ORNL-0162-14 Rev. 0
Attachment 1 Page 2 of 2

DIVIDER

PAGE

Attachment 1 – CCP Nonconformance Report (NCR)

CCP NONCONFORMANCE REPORT (NCR)

(Use NCR Continuation, Attachment 3, if necessary)

NCR No. NCR-ORNL-0159-14		Revision 0
1. Lot No., Heat No., or Serial No. (if applicable): N/A	2. Process (e.g., NDA, NDE, VE, Other): VE	3. Batch Data Report #(s): 1. ORVECH0101 2. ORVECH0102 3. ORVECH0103 4. ORVECH0104
4. Order/Work Order/Job Control Number (if applicable): N/A	5. PO # (if applicable): N/A	Container #(s): 1. X10C9311429D1 2. X10C9311113A1 3. X10C9311031A1, X10C9312842A1 4. X10CSATN03195A1
	6. Supplier (if applicable): N/A	
DESCRIPTION OF NONCONFORMANCE		
7a. NCR Description: <input type="checkbox"/> < 100 nCi/g <input type="checkbox"/> Prohibited Item <input type="checkbox"/> E-Flag <input type="checkbox"/> Receipt Inspection <input type="checkbox"/> Transportation <input type="checkbox"/> WWIS/WDS <input checked="" type="checkbox"/> Other		
7b. Requirement(s) (Enter Implementing Procedure No., Revision, Section No., & Quoted Text): CCP-TP-113, CCP Standard Contact-Handled Waste Visual Examination, Rev. 18 Section 4.3.2 [D] "Perform the following, AND record the applicable data for the Output Waste Container in Section 1 of Attachment 2. IF a rigid liner is present, THEN record YES, the Type of Liner, and Thickness."		
7c. Actual Condition: On Attachment 2-CCP Waste Visual Examination Data Form, the Operator did not record the Thickness of the rigid liner.		
7d. Have the CCP HOLD TAGS associated with this NCR been applied? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO If no is checked, explain: <p style="text-align: center;">06/19/14 LR</p>		
8. NCR Originator: Daniel Wade <i>Daniel Wade</i> 06/18/2014 printed name signature date		
9. Does the identified condition have the potential to impact AK? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> INDETERMINATE If YES or INDETERMINATE, enter Trend Code L in Block 10.		
10. Trend Code: A	11. Responsible Manager: Beverly Schrock	
12. Significant Condition? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO (If Yes, enter WIPP Form No.):	13. Recurring Condition? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO (If Yes, list NCRs and WIPP Forms):	
14. QA Engineer or QA Designee validation: Laura R. Jones <i>Laura R. Jones</i> 06/18/14 printed name signature date		

COPY

NTPC RECORDS ORIGINAL
DATE REC'D 7-10-14

Attachment 1 – CCP Nonconformance Report (NCR) (Continued)

NCR No. <u>NCR-ORNL-0159-14</u> Revision <u>0</u>		
INTERIM DISPOSITION		
15a. Interim Disposition (Check Only One):		
<input checked="" type="checkbox"/> N/A (See Final Disposition)	<input type="checkbox"/> Hold	<input type="checkbox"/> Conditionally Accept
<input type="checkbox"/> Sort	<input type="checkbox"/> Reinspect or Retest	<input type="checkbox"/> Conditionally Use
<input type="checkbox"/> Remediate		
15b. Instructions for Completion of the Interim Disposition:		
INTERIM DISPOSITION APPROVALS		
16a. Responsible Manager or Individual:		
_____	_____	_____
printed name	signature	date
16b. QA Engineer or QA Designee:		
_____	_____	_____
printed name	signature	date
Additional Approval:		
_____	_____	_____
printed name	signature	date
Additional Approval:		
_____	_____	_____
printed name	signature	date
COMPLETION OF INTERIM DISPOSITION		
17. Interim Disposition Complete – Responsible Manager or Individual:		
_____	_____	_____
printed name	signature	date
18. Interim Disposition Verified – QA Engineer:		
_____	_____	_____
printed name	signature	date

Attachment 1 – CCP Nonconformance Report (NCR) (Continued)

NCR No. <u>NCR-ORNL-0159-14</u> Revision <u>0</u>		
FINAL DISPOSITION		
19. Final Disposition (Check Only One: Use-As-Is, Repair, Reject, Rework, or Scrap): <input type="checkbox"/> Use-As-Is <input type="checkbox"/> Repair		
19a. Technical Justification – Required for <u>Use-As-Is</u> or <u>Repair</u> dispositions. [<input checked="" type="checkbox"/> N/A for Reject, Rework, or Scrap]		
----- <input type="checkbox"/> Reject <input checked="" type="checkbox"/> Rework <input type="checkbox"/> Scrap		
19b. Instructions for Completion – Required for <u>Reject</u> , <u>Repair</u> , <u>Rework</u> , or <u>Scrap</u> [<input type="checkbox"/> N/A for Use-As-Is]		
1.) VE-Operator, make needed corrections. 2.) VE-ITR, review. 3.) SPM review.		

19c. Corrective Actions (Actions to Prevent Recurrence – For <u>Repair</u> or <u>Rework</u> , if applicable. [<input checked="" type="checkbox"/> N/A if not applicable, and for Use-As-Is, Reject, and Scrap]		
FINAL DISPOSITION APPROVALS		
20. Responsible Manager or Individual:		
Beverly Schrock <small>printed name</small>	<i>BSSchrock</i> <small>signature</small>	6/18/14 <small>date</small>
21. QA Engineer or QA Designee:		
<i>Laura R. Jones</i> <small>printed name</small>	<i>Laura Laura Jones</i> <small>signature</small>	6/18/2014 <small>date</small>
Additional Approval:		
_____	_____	_____
<small>printed name</small>	<small>signature</small>	<small>date</small>
Additional Approval:		
_____	_____	_____
<small>printed name</small>	<small>signature</small>	<small>date</small>
CLOSURE		
22. Final Disposition Complete - Responsible Manager or Individual:		
<i>BSSchrock</i> <small>printed name</small>	<i>BSSCHROCK</i> <small>signature</small>	7/1/14 <small>date</small>
23. Attachments: 1-Email Documenting Reportability. 2- Hold tag information. 3- Basis for NCR closure. 4- Hold tag removal notification.		
24a. HOLD TAG removal has been verified and reconciled for all nonconforming items on the NCR: <input checked="" type="checkbox"/> 07/18/2014		
24b. If HOLD TAG is not applicable, check: <input type="checkbox"/> and explain:		
See Attachment 4		late Entry 07/18/14 LRS
25. Final Disposition Verified – NCR Closed QA Engineer:		
<i>Laura R. Jones</i> <small>printed name</small>	<i>Laura Laura Jones</i> <small>signature</small>	07/09/2014 <small>date</small>

Jones, Laura - NWP

From: Ramirez, Mike - NWP
Sent: Wednesday, June 18, 2014 3:02 PM
To: Jones, Laura - NWP
Subject: RE: New NCR-ORNL-0159-14

Not reportable

Mike Ramirez
Central Characterization Project
Nuclear Waste Partnership LLC
Contractor for the U.S. Department of Energy
(575)-234-7034

From: Jones, Laura - NWP
Sent: Wednesday, June 18, 2014 2:56 PM
To: Harmon, Latravia; Harmon, LaTravia - NWP; Leos, Greta - Stoller; Navarrete, Leon - Stoller; Percy, Sheila - Stoller; Ramirez, Mike - NWP; Schrock, Beverly - NWP; Stallings, Andrew - ORNL; Wade, Daniel NWP
Cc: Waldram, Veronica - NWP; Walker, Mak (Maryann) - NWP; Jones, Laura - NWP
Subject: New NCR-ORNL-0159-14

Latravia / Bev / Andrew / Daniel – Please ensure that hold tag is apply and notify.
Mike – Please review for notification purposes.
Greta – Please post this open NCR

Thanks and Best Regards

Laura R. Jones
Quality Assurance NCR Coordinator
Nuclear Waste Partnership LLC
Contractor for the U.S. Department of Energy
Office: (575) 234-7244
Email: laura.jones@wipp.ws
Fax: (575) 234-7071



NCR-ORNL-0159-14 Rev.0

Attachment 1 Page 1 of 2

Jones, Laura - NWP

From: IDC <SQLMaster@wipp.ws>
Sent: Wednesday, June 18, 2014 3:02 PM
To: DL CCP QA CBFO Notify
Subject: Project Office NCR [NCR-ORNL0159140] was just reviewed.

Certification Manager/Designee has just reviewed the project office NCR NCR-ORNL0159140 and has indicated that it [should **NOT**] be reported to CBFO. IDC has already updated the NCR for you.

NCR -ORNL-0159-14 Rev. 0

Attachment 1 Page 2 of 2

Jones, Laura - NWP

From: Harmon, Latravia <Latravia.Harmon@truproject.com>
Sent: Thursday, June 19, 2014 7:42 AM
To: Jones, Laura - NWP
Subject: FW: NCR-ORNL-0159-14 Tags

FYI

LaTravia N. Harmon
Quality Assurance Engineer
Nuclear Waste Partnership LLC
Contractor to the United States Department of Energy
(865)576-1650 Office
(865)441-2706 Cell
latravia.harmon@truproject.com

From: Anthony Harley
Sent: Thursday, June 19, 2014 7:57 AM
To: Harmon, Latravia
Cc: Andrew Stallings
Subject: NCR-ORNL-0159-14 Tags

NCR-ORNL-0159-14 tags have been applied on 6-19-14 on the following drums:

1. X10C9311429D1
2. X10C9311113A1
3. X10C9311031A1
4. X10C9312842A1
5. X10CSATN03195A1

Anthony Harley

ORNL RH VEE

Nuclear Waste Partnership LLC

Contractor for U.S. Department of Energy

(865)574-5971-office

(803)634-1260-cell

anthony.harley@truproject.com

NCR - ORNL-0159-14 Rev. 0
Attachment 2 Page 1 of 1

Attachment 2 – CCP Waste Visual Examination Data Form

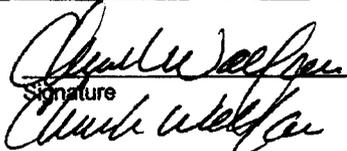
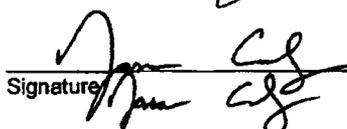
Batch Data Report No.: ORVECH0101

Input Waste Container ID, as applicable: <u>X10C9311429D</u>	
Output Waste Container ID: <u>X10C9311429D1</u>	Waste Stream ID: <u>OR-ISTP-CH-HET</u>
Container Type: <u>55 Gallon</u>	TRUCON Code: <u>OR 125/225</u> Waste Matrix Code: <u>S5400</u>
Audio/Video Media Recording Number: <input checked="" type="checkbox"/> N/A	
Waste Container Weights: Tare Wt: <u>33.2</u> kg. Gross Wt: <u>74.0</u> kg.	
Rigid Liner Present? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES Type of Liner: <input type="checkbox"/> Lead <input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Fiberboard <input type="checkbox"/> Other: Thickness: <input type="checkbox"/> 30-mil <input checked="" type="checkbox"/> 90-mil <input type="checkbox"/> 110-mil <input type="checkbox"/> 125-mil <u>CW 06/19/14</u>	Rigid Liner Lid Present? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES Rigid Liner Lid is Vented (>0.3 in.) or Filtered? <input type="checkbox"/> NO <input type="checkbox"/> YES <input checked="" type="checkbox"/> N/A <input type="checkbox"/> Vented: Hole Size: <input checked="" type="checkbox"/> N/A <input type="checkbox"/> Filtered: Model No.: <input checked="" type="checkbox"/> N/A Serial No.: <input checked="" type="checkbox"/> N/A
Bag Liner Present? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES	Volume Utilization Percentage: <u>100</u> %
Does the physical form of the waste match the Waste Stream Description (i.e., Homogeneous Solids, Soil/Gravel, or Debris Waste [including uncategorized metals])? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES	
Does the physical form of the waste match the Waste Matrix Code? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES	
Closure Method: <u>TT</u> Number of Layers of Confinement: <u>1</u>	
Filter Torque Wrench Serial/ID No.: <u>1208070374/WFP126</u> Calibration Due Date: <u>07/18/14</u> <u>CW 06/02/14</u> Filter: Model No.: <u>0023W UT9434X 00234</u> Serial No.: <u>UT9424X 0132</u> <u>CW 05/07/14</u> Torque Value: <u>6 IN. lbs.</u> <u>72 IN. lbs.</u> <u>CW 06/02/14</u>	Lid Ring/Bolt Torque Wrench Serial/ID No.: <u>WFP149</u> Calibration Due Date: <u>08/12/14</u> Lid Ring/Bolt Torque Value: <u>60 Ft lbs</u>
Is total dose rate greater than 200mrem/hr? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES	
NCR(s) associated with the output container? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES NCR No.: <u>NCR-ORNL-0702-14</u> NCR No.: <u>NIA</u>	
Comments: <u>The container scale was not listed on the M&TE list.</u>	

NCR ORNL-0159-14-0

Attachment 2 – CCP Waste Visual Examination Data Form (continued) Page 5 of 5

Batch Data Report No.: ORVECH0101 Output Waste Container ID: X10C931142901

Comments: N/A		
Visual Examination Operator 1: <u>Chuck Wallace</u> Print Name	<u></u> Signature	<u>05/27/14</u> Date
Visual Examination Operator 2: <u>Jason Coffey</u> Print Name	<u></u> Signature	<u>5-27-14</u> Date <u>6/19/14</u>

NCR ORNL-0159-14-0

Attachment 5 – CCP Waste VE Batch Data Report Cover Sheet

Batch Data Report No.: ORUECH0101

Examination Date: 05/27/14

1	X10C9311489D1
2	N/A CW 05/27/14
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	

Independent Technical Reviewer:
Derek Matheny Derek Matheny 6/3/14
Print Name Signature Date

Derek Matheny

6/19/14

NCR ORNL-0159-14-0

Attachment 3

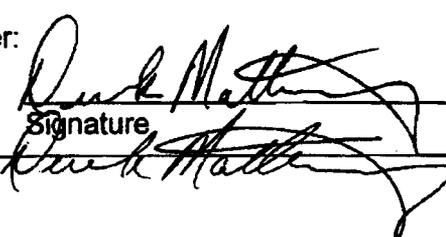
Page 3 of 26

NTPC RECORDS ORIGINAL
DATE RECD. 6-03-2014

Attachment 3 – CCP Waste VE Independent Technical Reviewer Checklist (continued)

Batch Data Report No.: ORVECH0101

Page 2 of 2

14. Was the waste in the Output Waste Container(s) examined for prohibited items?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
15. Is there an adequate written description of the contents of each item?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
16. Were the scale(s) in calibration prior to the VE and documented correctly?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
17. Were the scale checks SAT prior to the VE and documented correctly?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
18. Was the audio/video media recording properly prepared and labeled for each waste container?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> N/A
19. Was the audio/video media recording check performed satisfactorily prior to the VE?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> N/A
20. Precision: Was precision maintained by reconciling any discrepancies between the operator and the independent technical reviewer with regard to identification of waste matrix code, liquids in excess of TSDf-WAC limits, and compressed gases?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
21. Accuracy: Was accuracy maintained by requiring operators to pass a comprehensive examination and demonstrate satisfactory performance in the presence of the VE expert during their initial qualification and subsequent requalification (operators on LOQI)?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
22. Completeness: Is there a completed VE data form for each waste container in the BDR?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
23. Were NCRs initiated as required?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
Comments: <i>For questions 16+17 please refer to NCR # NCR-ORNL-0702-14.</i>			
I have reviewed 100 percent of the container-specific and batch data in this report and find it acceptable.			
Independent Technical Reviewer:			
<u>Derek Matheny</u> Printed Name	 Signature	<u>6/13/14</u> Date	<u>6/19/14</u>

NCR ORNL-0159-14-0

Attachment 1 – CCP SPM Visual Examination Project Level Validation Checklist and Summary

BDR Number: <u>ORVECH0101</u>		Examination Date(s): <u>05/27/2014</u>		
Description of Criteria Reviewed	Criteria Met?			Comments/Qualifiers
	YES	NO	NA	
1. Is the completed, signed and dated Independent Technical Reviewer Checklist included in the BDR, and the independent technical reviewer was not involved in the generation or recording of the data under review? Reference Source: CCP-PO-001, C3-4	X			
2. Does the BDR contain all items addressed in the BDR Table of Contents? Reference Source: CCP-PO-001, C3-4	X			
3. Does the BDR include a listing of all container numbers in the batch? Reference Source: CCP-PO-001, C3-4	X			
4. List all containers that have met QAOs. Reference Source: CCP-PO-001, C3-4				Container Numbers: X10C9311429D1
5. Is the current implementing procedure and revision number included in the BDR? Reference Source: CCP-PO-001, Table C3-3	X			
6. Is the BDR date included? Reference Source: CCP-PO-001, Table C3-3	X			
7. Is there a reference to or copy of any associated NCRs (if any) in the BDR? Reference Source: CCP-PO-001, Table C3-3	X			NCR-ORNL-0702-14 NCR-ORNL-0159-14
8. Are there 20 or fewer containers in the batch? Reference Source: CCP-PO-001 C3-4	X			
9. Are the data properly reported (i.e., data are reported in correct units and with correct significant figures). Reference Source: CCP-PO-001 C3-4	X			
10. Is there evidence of verification that the physical form matches the Waste Matrix Code? Reference Source: CCP-PO-001, Table C3-3	X			
11. Is there evidence of verification that the physical form matches the waste stream description? Reference Source: CCP-PO-001, Table C3-3	X			
12. Are prohibited items absent? Reference Source: CCP-PO-001, Table C3-3	X			

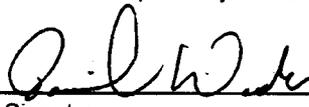
NCR ORNL-0159-14-0

Attachment 3

Page 5 of 26

NTPC RECORDS ORIGINAL
DATE RECD. 10-25-14 GL

Attachment 1 – CCP SPM Visual Examination Project Level Validation Checklist and Summary (Continued)

BDR Number: <u>ORVECH0101</u>		Examination Date(s): <u>05/27/2014</u>		
Description of Criteria Reviewed	Criteria Met?			Comments/Qualifiers
	YES	NO	NA	
29. For LANL Sealed Sources, is each sealed source a rigid sealed container less than or equal to 4 L in size or in a rigid sealed container less than or equal to 4 L? Reference Source: CCP Technical Procedures			X	Not a LANL Sealed Source.
30. For LANL Sealed Sources, AK documentation does not indicate the use of volatile organic compounds (VOCs) or VOC-bearing materials as constituents of sealed sources? Reference Source: CCP Technical Procedures			X	Not a LANL Sealed Source.
31. For LANL Sealed Sources, the outer casing of each sealed source is of a non VOC-bearing material which is verified using the VE technique at the time of packaging? Reference Source: CCP Technical Procedures			X	Not a LANL Sealed Source.
Comments: NCR-ORNL-0159-14 attached as SPM-1, SPM-2, and SPM-3.				
The container QC checks were properly performed and meet the Quality Assurance Objectives (QAOs). Proper procedures were followed during data reduction and analysis. The batch is complete, acceptable, and includes all supporting data and documentation required by the QAPjP.				
Daniel Wade			06/25/2014	
SPM Printed Name		Signature 		Date

Checklist is to be re-signed only when a re-review is performed.

SPM Printed Name _____ Signature _____ Reason _____ Date _____

SPM Printed Name _____ Signature _____ Reason _____ Date _____

NCR ORNL-0159-14-0

Attachment 3 Page 6 of 26

Batch Data Report No.: ORVECHO102

Input Waste Container ID, as applicable: <u>X10C9311113A</u>	
Output Waste Container ID: <u>X10C9311113A1</u>	Waste Stream ID: <u>OR-ISTP-CH-HET</u>
Container Type: <u>55 Gallon</u>	TRUCON Code: <u>OR 05/025</u>
Waste Matrix Code: <u>SS400</u>	
Audio/Video Media Recording Number: <input checked="" type="checkbox"/> N/A	
Waste Container Weights:	
Tare Wt: <u>33.2</u> kg.	Gross Wt: <u>67.4</u> kg.
Rigid Liner Present? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES	Rigid Liner Lid Present? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES
Type of Liner: <input type="checkbox"/> Lead <input type="checkbox"/> Plastic	Rigid Liner Lid is Vented (>0.3 in) or Filtered?
<input checked="" type="checkbox"/> Fiberboard <input type="checkbox"/> Other:	<input type="checkbox"/> NO <input type="checkbox"/> YES <input checked="" type="checkbox"/> N/A
Thickness: <input type="checkbox"/> 30-mil <input checked="" type="checkbox"/> 90-mil <input type="checkbox"/> 110-mil	<input type="checkbox"/> Vented: Hole Size: <input checked="" type="checkbox"/> N/A
<input type="checkbox"/> 125-mil <u>CA 06/19/14</u>	<input type="checkbox"/> Filtered: Model No.: <input checked="" type="checkbox"/> N/A
	Serial No.: <input checked="" type="checkbox"/> N/A
Bag Liner Present? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES	Volume Utilization Percentage: <u>100</u> %
Does the physical form of the waste match the Waste Stream Description (i.e., Homogeneous Solids, Soil/Gravel, or Debris Waste [including uncategorized metals])? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES	
Does the physical form of the waste match the Waste Matrix Code? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES	
Closure Method: <u>TT</u>	
Number of Layers of Confinement: <u>1</u>	
<u>Filter Torque Wrench</u> Serial/ID No.: <u>1208070374/WIPP126</u> Calibration Due Date: <u>7-18-14</u> Filter: Model No.: <u>00234</u> Serial No.: <u>0132</u> Torque Value: <u>72 in lbs</u>	<u>Lid Ring/Bolt Torque Wrench</u> Serial/ID No.: <u>WIPP149</u> Calibration Due Date: <u>8-12-14</u> Lid Ring/Bolt Torque Value: <u>60 Ft lbs</u>
Is total dose rate greater than 200mrem/hr? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES	
NCR(s) associated with the output container? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES	
NCR No.: <u>N/A</u>	
NCR No.: <u>N/A</u>	
Comments: <u>N/A</u>	

NCR ORNL-0159-14-0

Attachment 3 Page 7 of 26

Attachment 2 – CCP Waste Visual Examination Data Form (continued) Page 5 of 5

Batch Data Report No.: ORVECH0107 Output Waste Container ID: X10C931113A1

Comments: N/A

Visual Examination Operator 1:

Jason Coker
Print Name

[Signature]
Signature

5/28/14
Date
6/19/14

Visual Examination Operator 2:

Clayton Wallace
Print Name
Clayton Wallace

[Signature]
Signature
[Signature]

05/28/14
Date
06/19/14

NCRORN-0159-14-0

Attachment 3

Page 8 of 26

Attachment 3 – CCP Waste VE Independent Technical Reviewer Checklist (continued)

Batch Data Report No.: ORVECH0102

Page 2 of 2

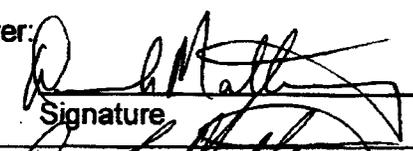
14. Was the waste in the Output Waste Container(s) examined for prohibited items?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
15. Is there an adequate written description of the contents of each item?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
16. Were the scale(s) in calibration prior to the VE and documented correctly?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
17. Were the scale checks SAT prior to the VE and documented correctly?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
18. Was the audio/video media recording properly prepared and labeled for each waste container?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> N/A
19. Was the audio/video media recording check performed satisfactorily prior to the VE?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> N/A
20. Precision: Was precision maintained by reconciling any discrepancies between the operator and the independent technical reviewer with regard to identification of waste matrix code, liquids in excess of TSDF-WAC limits, and compressed gases?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
21. Accuracy: Was accuracy maintained by requiring operators to pass a comprehensive examination and demonstrate satisfactory performance in the presence of the VE expert during their initial qualification and subsequent requalification (operators on LOQI)?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
22. Completeness: Is there a completed VE data form for each waste container in the BDR?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
23. Were NCRs initiated as required?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input checked="" type="checkbox"/> N/A

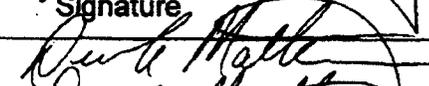
DM 6/25/14

Comments: N/A

I have reviewed 100 percent of the container-specific and batch data in this report and find it acceptable.

Independent Technical Reviewer:

<u>Derek Matheny</u> Printed Name	 Signature	<u>6/3/14</u> Date
--------------------------------------	---------------------------------------------------------------------------------------------------	-----------------------

	<u>6/19/14</u>
	<u>6/25/14</u>

NCR ORNL-0159-14-0

Attachment 5 – CCP Waste VE Batch Data Report Cover Sheet

Batch Data Report No.: ORVECH0102

Examination Date: 5-28-14

1	X10C931113A1
2	N/A X 5/28/14
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	

Independent Technical Reviewer:
Derek Matheny Derek Matheny 6/3/14
Print Name Signature Date

Derek Matheny 6/19/14
Derek Matheny 6/25/14

Attachment 1 – CCP SPM Visual Examination Project Level Validation Checklist and Summary

BDR Number: <u>ORVECH0102</u>		Examination Date(s): <u>05/28/2014</u>		
Description of Criteria Reviewed	Criteria Met?			Comments/Qualifiers
	YES	NO	NA	
1. Is the completed, signed and dated Independent Technical Reviewer Checklist included in the BDR, and the independent technical reviewer was not involved in the generation or recording of the data under review? Reference Source: CCP-PO-001, C3-4	X			
2. Does the BDR contain all items addressed in the BDR Table of Contents? Reference Source: CCP-PO-001, C3-4	X			
3. Does the BDR include a listing of all container numbers in the batch? Reference Source: CCP-PO-001, C3-4	X			
4. List all containers that have met QAOs. Reference Source: CCP-PO-001, C3-4				Container Numbers: X10C9311113A1
5. Is the current implementing procedure and revision number included in the BDR? Reference Source: CCP-PO-001, Table C3-3	X			
6. Is the BDR date included? Reference Source: CCP-PO-001, Table C3-3	X			
7. Is there a reference to or copy of any associated NCRs (if any) in the BDR? Reference Source: CCP-PO-001, Table C3-3	X			NCR-ORNL-0159-14
8. Are there 20 or fewer containers in the batch? Reference Source: CCP-PO-001 C3-4	X			
9. Are the data properly reported (i.e., data are reported in correct units and with correct significant figures). Reference Source: CCP-PO-001 C3-4	X			
10. Is there evidence of verification that the physical form matches the Waste Matrix Code? Reference Source: CCP-PO-001, Table C3-3	X			
11. Is there evidence of verification that the physical form matches the waste stream description? Reference Source: CCP-PO-001, Table C3-3	X			
12. Are prohibited items absent? Reference Source: CCP-PO-001, Table C3-3	X			

NCR ORNL-0159-14-0 NTPC RECORDS ORIGINAL
 Attachment 3 Page 11 of 26 DATE RECD 10-25-14GL

Attachment 1 – CCP SPM Visual Examination Project Level Validation Checklist and Summary (Continued)

BDR Number: <u>ORVECH0102</u>		Examination Date(s): <u>05/28/2014</u>		
Description of Criteria Reviewed	Criteria Met?			Comments/Qualifiers
	YES	NO	NA	
29. For LANL Sealed Sources, is each sealed source a rigid sealed container less than or equal to 4 L in size or in a rigid sealed container less than or equal to 4 L? Reference Source: CCP Technical Procedures			X	Not a LANL Sealed Source.
30. For LANL Sealed Sources, AK documentation does not indicate the use of volatile organic compounds (VOCs) or VOC-bearing materials as constituents of sealed sources? Reference Source: CCP Technical Procedures			X	Not a LANL Sealed Source.
31. For LANL Sealed Sources, the outer casing of each sealed source is of a non VOC-bearing material which is verified using the VE technique at the time of packaging? Reference Source: CCP Technical Procedures			X	Not a LANL Sealed Source.
Comments: NCR-ORNL-0159-14 attached as SPM-1, SPM-2, and SPM-3.				
The container QC checks were properly performed and meet the Quality Assurance Objectives (QAOs). Proper procedures were followed during data reduction and analysis. The batch is complete, acceptable, and includes all supporting data and documentation required by the QAPjP.				
Daniel Wade			06/25/2014	
SPM Printed Name		Signature 		Date

Checklist is to be re-signed only when a re-review is performed.

_____	_____	_____	_____
SPM Printed Name	Signature	Reason	Date
_____	_____	_____	_____
SPM Printed Name	Signature	Reason	Date

Attachment 2 – CCP Waste Visual Examination Data Form

Batch Data Report No.: ORVECH0103

Input Waste Container ID, as applicable: <u>X10C9311031A</u>	
Output Waste Container ID: <u>X10C9311031A1</u>	Waste Stream ID: <u>OR-ISTP-CHK-KET</u>
Container Type: <u>55 Gallon</u>	TRUCON Code: <u>OR 125/225</u>
Waste Matrix Code: <u>55400</u>	
Audio/Video Media Recording Number: <input checked="" type="checkbox"/> N/A	
Waste Container Weights:	
Tare Wt: <u>33.2</u> kg.	Gross Wt: <u>89.8</u> kg.
Rigid Liner Present? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES	Rigid Liner Lid Present? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES
Type of Liner: <input type="checkbox"/> Lead <input type="checkbox"/> Plastic	Rigid Liner Lid is Vented (>0.3 in.) or Filtered?
<input checked="" type="checkbox"/> Fiberboard <input type="checkbox"/> Other:	<input type="checkbox"/> NO <input type="checkbox"/> YES <input checked="" type="checkbox"/> N/A
Thickness: <input type="checkbox"/> 30-mil <input checked="" type="checkbox"/> 90-mil <input type="checkbox"/> 110-mil	<input type="checkbox"/> Vented: Hole Size: <input checked="" type="checkbox"/> N/A
<input type="checkbox"/> 125-mil <u>CO 06/19/14</u>	<input type="checkbox"/> Filtered: Model No.: <input checked="" type="checkbox"/> N/A
Serial No.: <input checked="" type="checkbox"/> N/A	
Bag Liner Present? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES	Volume Utilization Percentage: <u>100</u> %
Does the physical form of the waste match the Waste Stream Description (i.e., Homogeneous Solids, Soil/Gravel, or Debris Waste [including uncategorized metals])? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES	
Does the physical form of the waste match the Waste Matrix Code? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES	
Closure Method: <u>TT</u>	
Number of Layers of Confinement: <u>1</u>	
Filter Torque Wrench Serial/ID No.: <u>WIPP 126</u> Calibration Due Date: <u>07/18/14</u> Filter: Model No.: <u>UT 9424X 00234</u> Serial No.: <u>0140</u> Torque Value: <u>72 in. lbs.</u>	Lid Ring/Bolt Torque Wrench Serial/ID No.: <u>WIPP 149</u> Calibration Due Date: <u>08/12/14</u> Lid Ring/Bolt Torque Value: <u>60 Ft. lbs.</u>
Is total dose rate greater than 200mrem/hr? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES	
NCR(s) associated with the output container? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES	
NCR No.: <u>N/A</u>	
NCR No.: <u>N/A</u>	
Comments: <u>N/A</u>	

NCR ORNL-0159-14-0

Batch Data Report No.: ORVECH0103 Output Waste Container ID: X10C9311031A1

Comments:

N/A

Visual Examination Operator 1:

Chuck Wallace
Print Name

Chuck Wallace
Signature

05/27/14
Date
06/19/14

Visual Examination Operator 2:

Derek Matheny
Print Name

Derek Matheny
Signature

6/2/14
Date
6/19/14

NCR ORNL-0159-14-0

Attachment 3

Page 14 of 26

Attachment 2 – CCP Waste Visual Examination Data Form

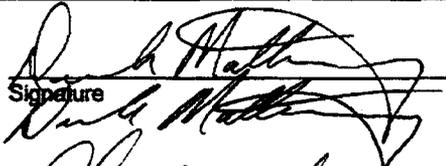
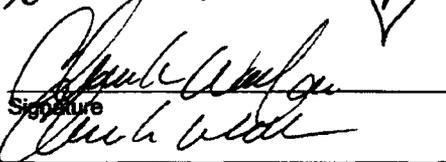
Batch Data Report No.: ORVECH0103

Input Waste Container ID, as applicable: <u>X10C9312842A</u>	
Output Waste Container ID: <u>X10C9312842A1</u>	Waste Stream ID: <u>OR-1STP-CH-HET</u>
Container Type: <u>55 Gallon</u>	TRUCON Code: <u>OR 125/225</u> Waste Matrix Code: <u>33408 DM 35400 DM</u>
Audio/Video Media Recording Number: <input checked="" type="checkbox"/> N/A	
Waste Container Weights: Tare Wt: <u>33.2</u> kg. Gross Wt: <u>74.4</u> kg.	
Rigid Liner Present? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES Type of Liner: <input type="checkbox"/> Lead <input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Fiberboard <input type="checkbox"/> Other: Thickness: <input type="checkbox"/> 30-mil <input checked="" type="checkbox"/> 90-mil <input type="checkbox"/> 110-mil <input type="checkbox"/> 125-mil <u>DM 6/19/14</u>	Rigid Liner Lid Present? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES Rigid Liner Lid is Vented (>0.3 in.) or Filtered? <input type="checkbox"/> NO <input type="checkbox"/> YES <input type="checkbox"/> N/A <input type="checkbox"/> Vented: Hole Size: <input checked="" type="checkbox"/> N/A <input type="checkbox"/> Filtered: Model No.: <input checked="" type="checkbox"/> N/A Serial No.: <input checked="" type="checkbox"/> N/A
Bag Liner Present? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES	Volume Utilization Percentage: <u>100</u> %
Does the physical form of the waste match the Waste Stream Description (i.e., Homogeneous Solids, Soil/Gravel, or Debris Waste [including uncategorized metals])? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES	
Does the physical form of the waste match the Waste Matrix Code? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES	
Closure Method: <u>TT</u> Number of Layers of Confinement: <u>1</u>	
Filter Torque Wrench Serial/ID No.: <u>WIPP 108</u> Calibration Due Date: <u>10/14/14</u> Filter: Model No.: <u>UT9424X00234</u> Serial No.: <u>0126</u> Torque Value: <u>72 inch lbs</u>	Lid Ring/Bolt Torque Wrench Serial/ID No.: <u>WIPP 149 DM 5/22/14 WIPP 149</u> Calibration Due Date: <u>08/12/14</u> Lid Ring/Bolt Torque Value: <u>60 ft. lbs</u>
Is total dose rate greater than 200mrem/hr? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES	
NCR(s) associated with the output container? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES NCR No.: <u>NA</u> NCR No.: <u>NA</u>	
Comments: <u>NA</u>	

NCR ORNL-0159-14-0

Attachment 2 – CCP Waste Visual Examination Data Form (continued) Page 5 of 5

Batch Data Report No.: ORVECH.0123 Output Waste Container ID: X10C9312842A1

Comments: <p style="text-align: center; font-size: 2em;">N/A</p>		
Visual Examination Operator 1: <u>Derek Matheny</u> Print Name	 Signature	<u>5/29/14</u> Date <u>6/19/14</u>
Visual Examination Operator 2: <u>Chuck Wallace</u> Print Name	 Signature	<u>05/29/14</u> Date <u>06/19/14</u>

Attachment 3 – CCP Waste VE Independent Technical Reviewer Checklist (continued)

Batch Data Report No.: DRUECH 0103

Page 2 of 2

14. Was the waste in the Output Waste Container(s) examined for prohibited items?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
15. Is there an adequate written description of the contents of each item?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
16. Were the scale(s) in calibration prior to the VE and documented correctly?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
17. Were the scale checks SAT prior to the VE and documented correctly?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
18. Was the audio/video media recording properly prepared and labeled for each waste container?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> N/A
19. Was the audio/video media recording check performed satisfactorily prior to the VE?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> N/A
20. Precision: Was precision maintained by reconciling any discrepancies between the operator and the independent technical reviewer with regard to identification of waste matrix code, liquids in excess of TSDF-WAC limits, and compressed gases?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
21. Accuracy: Was accuracy maintained by requiring operators to pass a comprehensive examination and demonstrate satisfactory performance in the presence of the VE expert during their initial qualification and subsequent requalification (operators on LOQI)?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
22. Completeness: Is there a completed VE data form for each waste container in the BDR?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
23. Were NCRs initiated as required?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input checked="" type="checkbox"/> N/A
Comments: <u>N/A</u>			
I have reviewed 100 percent of the container-specific and batch data in this report and find it acceptable.			
Independent Technical Reviewer:			
<u>Susan Cohen</u>	<u>[Signature]</u>	<u>6-3-14</u>	
Printed Name	Signature	Date	
	<u>[Signature]</u>	<u>6-25-14</u>	

SC
6-25-14

NCR ORNL-0159-14-0

Attachment 3 Page 17 of 26

15

Attachment 5 – CCP Waste VE Batch Data Report Cover Sheet

Batch Data Report No.: DRVECH0103

Examination Date: 05/25/14

1	X10C9311031A1
2	X10C9312842A1
3	N/A CW 05/25/14
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	

Independent Technical Reviewer:

<u>Jason Cofer</u>	<u>[Signature]</u>	<u>6-3-14</u>
Print Name	Signature	Date

6-19-14
6-25-14

Attachment 1 – CCP SPM Visual Examination Project Level Validation Checklist and Summary

BDR Number: <u>ORVECH0103</u>		Examination Date(s): <u>05/29/2014</u>		
Description of Criteria Reviewed	Criteria Met?			Comments/Qualifiers
	YES	NO	NA	
1. Is the completed, signed and dated Independent Technical Reviewer Checklist included in the BDR, and the independent technical reviewer was not involved in the generation or recording of the data under review? Reference Source: CCP-PO-001, C3-4	X			
2. Does the BDR contain all items addressed in the BDR Table of Contents? Reference Source: CCP-PO-001, C3-4	X			
3. Does the BDR include a listing of all container numbers in the batch? Reference Source: CCP-PO-001, C3-4	X			
4. List all containers that have met QAOs. Reference Source: CCP-PO-001, C3-4				Container Numbers: X10C9311031A1 X10C9312842A1
5. Is the current implementing procedure and revision number included in the BDR? Reference Source: CCP-PO-001, Table C3-3	X			
6. Is the BDR date included? Reference Source: CCP-PO-001, Table C3-3	X			
7. Is there a reference to or copy of any associated NCRs (if any) in the BDR? Reference Source: CCP-PO-001, Table C3-3	X			NCR-ORNL-0159-14
8. Are there 20 or fewer containers in the batch? Reference Source: CCP-PO-001 C3-4	X			
9. Are the data properly reported (i.e., data are reported in correct units and with correct significant figures). Reference Source: CCP-PO-001 C3-4	X			
10. Is there evidence of verification that the physical form matches the Waste Matrix Code? Reference Source: CCP-PO-001, Table C3-3	X			
11. Is there evidence of verification that the physical form matches the waste stream description? Reference Source: CCP-PO-001, Table C3-3	X			
12. Are prohibited items absent? Reference Source: CCP-PO-001, Table C3-3	X			

NCR ORNL-0159-14-0

NTPC RECORDS ORIGINAL

Attachment 3

Page 19 of 26 DATE REC'D 10-25-14 *ca*

Attachment 1 – CCP SPM Visual Examination Project Level Validation Checklist and Summary (Continued)

BDR Number: <u>ORVECH0103</u>		Examination Date(s): <u>05/29/2014</u>		
Description of Criteria Reviewed	Criteria Met?			Comments/Qualifiers
	YES	NO	NA	
29. For LANL Sealed Sources, is each sealed source a rigid sealed container less than or equal to 4 L in size or in a rigid sealed container less than or equal to 4 L? Reference Source: CCP Technical Procedures			X	Not a LANL Sealed Source.
30. For LANL Sealed Sources, AK documentation does not indicate the use of volatile organic compounds (VOCs) or VOC-bearing materials as constituents of sealed sources? Reference Source: CCP Technical Procedures			X	Not a LANL Sealed Source.
31. For LANL Sealed Sources, the outer casing of each sealed source is of a non VOC-bearing material which is verified using the VE technique at the time of packaging? Reference Source: CCP Technical Procedures			X	Not a LANL Sealed Source.
Comments: NCR-ORNL-0159-14 attached as SPM-1, SPM-2, and SPM-3.				
The container QC checks were properly performed and meet the Quality Assurance Objectives (QAOs). Proper procedures were followed during data reduction and analysis. The batch is complete, acceptable, and includes all supporting data and documentation required by the QAPjP.				
Daniel Wade				06/25/2014
SPM Printed Name		Signature		Date

Checklist is to be re-signed only when a re-review is performed.

SPM Printed Name _____ Signature _____ Reason _____ Date _____

SPM Printed Name _____ Signature _____ Reason _____ Date _____

NCR ORNL-0159-14-0

Attachment 3 Page 20 of 26

Attachment 2 – CCP Waste Visual Examination Data Form

Page 1 of 5

Batch Data Report No.: ORVECH0104

Input Waste Container ID, as applicable: <u>X10CSATN03195A</u>	
Output Waste Container ID: <u>X10CSATN03195A1</u>	Waste Stream ID: <u>OR-ISTP-CH-HET</u>
Container Type: <u>55 Gallon</u>	TRUCON Code: <u>OR 125/225</u> Waste Matrix Code: <u>S5400</u>
Audio/Video Media Recording Number: <input checked="" type="checkbox"/> N/A	
Waste Container Weights: Tare Wt: <u>33.2</u> kg. Gross Wt: <u>89.6</u> kg.	
Rigid Liner Present? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES Type of Liner: <input type="checkbox"/> Lead <input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Fiberboard <input type="checkbox"/> Other: Thickness: <input type="checkbox"/> 30-mil <input checked="" type="checkbox"/> 90-mil <input type="checkbox"/> 110-mil <input type="checkbox"/> 125-mil <u>ew 06/19/14</u>	Rigid Liner Lid Present? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES Rigid Liner Lid is Vented (>0.3 in.) or Filtered? <input type="checkbox"/> NO <input type="checkbox"/> YES <input type="checkbox"/> N/A <input type="checkbox"/> Vented: Hole Size: <input type="checkbox"/> N/A <input type="checkbox"/> Filtered: Model No.: <input type="checkbox"/> N/A Serial No.: <input type="checkbox"/> N/A
Bag Liner Present? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES	Volume Utilization Percentage: <u>100</u> %
Does the physical form of the waste match the Waste Stream Description (i.e., Homogeneous Solids, Soil/Gravel, or Debris Waste [including uncategorized metals])? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES	
Does the physical form of the waste match the Waste Matrix Code? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES	
Closure Method: <u>TT</u> Number of Layers of Confinement: <u>1</u>	
Filter Torque Wrench Serial/ID No.: <u>WIPP 168</u> Calibration Due Date: <u>10/14/14</u> Filter: Model No.: <u>UT9424X 00234</u> Serial No.: <u>0138</u> Torque Value: <u>72 in lbs</u>	Lid Ring/Bolt Torque Wrench Serial/ID No.: <u>WIPP 149</u> Calibration Due Date: <u>08/12/14</u> Lid Ring/Bolt Torque Value: <u>60 Ft. lbs</u>
Is total dose rate greater than 200mrem/hr? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES	
NCR(s) associated with the output container? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES NCR No.: <u>N/A</u> NCR No.: <u>N/A</u>	
Comments: <u>N/A</u>	

NCR ORNL-0159-14-0

Attachment 3

Page 21 of 26

Attachment 2 – CCP Waste Visual Examination Data Form (continued) Page 5 of 5

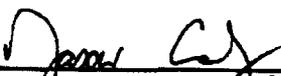
Batch Data Report No.: ORVECH0104 Output Waste Container ID: X10CSATN03195A1

Comments: N/A		
Visual Examination Operator 1: <u>Chuck Wallace</u> Print Name	<u>Chuck Wallace</u> Signature	<u>06/02/14</u> Date
Visual Examination Operator 2: <u>Derek Matheny</u> Print Name	<u>Derek Matheny</u> Signature	<u>06/02/14</u> Date

Attachment 3 – CCP Waste VE Independent Technical Reviewer Checklist (continued)

Batch Data Report No.: ORVECH0104

Page 2 of 2

14. Was the waste in the Output Waste Container(s) examined for prohibited items?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
15. Is there an adequate written description of the contents of each item?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
16. Were the scale(s) in calibration prior to the VE and documented correctly?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
17. Were the scale checks SAT prior to the VE and documented correctly?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
18. Was the audio/video media recording properly prepared and labeled for each waste container?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> N/A
19. Was the audio/video media recording check performed satisfactorily prior to the VE?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> N/A
20. Precision: Was precision maintained by reconciling any discrepancies between the operator and the independent technical reviewer with regard to identification of waste matrix code, liquids in excess of TSDF-WAC limits, and compressed gases?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
21. Accuracy: Was accuracy maintained by requiring operators to pass a comprehensive examination and demonstrate satisfactory performance in the presence of the VE expert during their initial qualification and subsequent requalification (operators on LOQI)?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
22. Completeness: Is there a completed VE data form for each waste container in the BDR?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
23. Were NCRs initiated as required?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input checked="" type="checkbox"/> N/A
Comments: <u>N/A</u>			
I have reviewed 100 percent of the container-specific and batch data in this report and find it acceptable.			
Independent Technical Reviewer:			
<u>Jason Cofer</u>	<u></u>	<u>6-3-14</u>	
Printed Name	Signature	Date	

36
6-25-14

NCR ORNL-0159-14-0

Attachment 3 Page 23 of 26

Attachment 5 – CCP Waste VE Batch Data Report Cover Sheet

Batch Data Report No.: ORVECH0104

Examination Date: 06/02/14

Waste Container ID Number	
1	XI0CSATNO3195A1
2	N/A CW 06/02/14
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	

Independent Technical Reviewer:

<u>Jason Cofer</u>	<u>[Signature]</u>	<u>6-3-14</u>
Print Name	Signature	Date

NCR ORNL-0159-14-0

Attachment 3

Page 24 of 26

NTPC RECORDS ORIGINAL
DATE REC'D 6-03-2014

Attachment 1 – CCP SPM Visual Examination Project Level Validation Checklist and Summary

BDR Number: <u>ORVECH0104</u>		Examination Date(s): <u>06/02/2014</u>		
Description of Criteria Reviewed	Criteria Met?			Comments/Qualifiers
	YES	NO	NA	
1. Is the completed, signed and dated Independent Technical Reviewer Checklist included in the BDR, and the independent technical reviewer was not involved in the generation or recording of the data under review? Reference Source: CCP-PO-001, C3-4	X			
2. Does the BDR contain all items addressed in the BDR Table of Contents? Reference Source: CCP-PO-001, C3-4	X			
3. Does the BDR include a listing of all container numbers in the batch? Reference Source: CCP-PO-001, C3-4	X			
4. List all containers that have met QAOs. Reference Source: CCP-PO-001, C3-4				Container Numbers: X10CSATN03195A1
5. Is the current implementing procedure and revision number included in the BDR? Reference Source: CCP-PO-001, Table C3-3	X			
6. Is the BDR date included? Reference Source: CCP-PO-001, Table C3-3	X			
7. Is there a reference to or copy of any associated NCRs (if any) in the BDR? Reference Source: CCP-PO-001, Table C3-3	X			NCR-ORNL-0159-14
8. Are there 20 or fewer containers in the batch? Reference Source: CCP-PO-001 C3-4	X			
9. Are the data properly reported (i.e., data are reported in correct units and with correct significant figures). Reference Source: CCP-PO-001 C3-4	X			
10. Is there evidence of verification that the physical form matches the Waste Matrix Code? Reference Source: CCP-PO-001, Table C3-3	X			
11. Is there evidence of verification that the physical form matches the waste stream description? Reference Source: CCP-PO-001, Table C3-3	X			
12. Are prohibited items absent? Reference Source: CCP-PO-001, Table C3-3	X			

NCR ORNL-0159-14-0

Attachment 3

Page 25 of 26

NTPC RECORDS ORIGINAL
DATE REC'D 10-25-14 GL

Attachment 1 – CCP SPM Visual Examination Project Level Validation Checklist and Summary (Continued)

BDR Number: <u>ORVECH0104</u>		Examination Date(s): <u>06/02/2014</u>		
Description of Criteria Reviewed	Criteria Met?			Comments/Qualifiers
	YES	NO	NA	
29. For LANL Sealed Sources, is each sealed source a rigid sealed container less than or equal to 4 L in size or in a rigid sealed container less than or equal to 4 L? Reference Source: CCP Technical Procedures			X	Not a LANL Sealed Source.
30. For LANL Sealed Sources, AK documentation does not indicate the use of volatile organic compounds (VOCs) or VOC-bearing materials as constituents of sealed sources? Reference Source: CCP Technical Procedures			X	Not a LANL Sealed Source.
31. For LANL Sealed Sources, the outer casing of each sealed source is of a non VOC-bearing material which is verified using the VE technique at the time of packaging? Reference Source: CCP Technical Procedures			X	Not a LANL Sealed Source.
Comments: NCR-ORNL-0159-14 attached as SPM-1, SPM-2, and SPM-3.				
The container QC checks were properly performed and meet the Quality Assurance Objectives (QAOs). Proper procedures were followed during data reduction and analysis. The batch is complete, acceptable, and includes all supporting data and documentation required by the QAPjP.				
Daniel Wade				06/25/2014
SPM Printed Name		Signature		Date

Checklist is to be re-signed only when a re-review is performed.

SPM Printed Name _____ Signature _____ Reason _____ Date _____

SPM Printed Name _____ Signature _____ Reason _____ Date _____

NCR ORNL-0159-14-0

Attachment 3 Page 26 of 26

Jones, Laura - NWP

From: Harmon, Latravia <Latravia.Harmon@truproject.com>
Sent: Wednesday, July 09, 2014 7:33 AM
To: Jones, Laura - NWP
Cc: Schrock, Beverly - NWP; Wade, Daniel NWP; Waldram, Veronica - NWP; Walker, Mak (Maryann) - NWP
Subject: Hold tags pulled NCR-ORNL-0159-14
Attachments: Picture (Device Independent Bitmap) 1.jpg

7/9/14

Hold tags were pulled for the following containers on 7/8/14. Please use this email as notification to close NCR-ORNL-0159-14.

The tag request has also been updated in IDC.

thanks

LaTravia N. Harmon
Quality Assurance Engineer
Nuclear Waste Partnership LLC
Contractor to the United States Department of Energy
(865)576-1650 Office
(865)441-2706 Cell
latravia.harmon@truproject.com

NCR -ORNL-0159-14 Rev.0
Attachment 4 Page 1 of 2

From: Jones, Laura - NWP [laura.jones@wipp.ws]
Sent: Tuesday, July 01, 2014 4:50 PM
To: Harmon, Latravia
Cc: Schrock, Beverly - NWP; Wade, Daniel NWP; Waldram, Veronica - NWP; Walker, Mak (Maryann) - NWP
Subject: Hold tags to be pulled NCR-ORNL-0159-14

Latravia,

Containers below have been resolved at the project office please remove hold tags and notify to close NCR.

BDR ID	Container ID	Release Code	Reason	NCR
ORVECH0101	X10C9311429D1	Resolved	Instruction for final disposition have been completed.	ITR and SPM re-reviewed BDR.
ORVECH0102	X10C9311113A1	Resolved	Instruction for final disposition have been completed.	ITR and SPM re-reviewed BDR.
ORVECH0103	X10C9311031A1	Resolved	Instruction for final disposition have been completed.	ITR and SPM re-reviewed BDR.
ORVECH0103	X10C9312842A1	Resolved	Instruction for final disposition have been completed.	ITR and SPM re-reviewed BDR.
ORVECH0104	X10CSATN03195A1	Resolved	Instruction for final disposition have been completed.	ITR and SPM re-reviewed BDR.

Thanks and Best Regards

Laura R. Jones
Quality Assurance NCR Coordinator
Nuclear Waste Partnership LLC
Contractor for the U.S. Department of Energy
Office: (575) 234-7244
Email: laura.jones@wipp.ws<mailto:laura.jones@wipp.ws>
Fax: (575) 234-7071
[\[cid:image001.png@01CDBBFB.C17506F0\]\[cid:09C74964A0E0DE4BBA0254A97C8E8B70@wipp.ws\]](#)

NCR -ORNL-0159-14 Rev. 0
Attachment 4 Page 2 of 2

GEN2

CH VE Log - NCRs

GEN2

NCR ID	WIC	Site ID	NCR Status	Work Process	Init Date	CBFO	SIGNIFICANT
NCR-ORNL0159140	CH	ORNL	Closed	VE	6/18/2014	Unchecked	Unchecked
NCR-ORNL0162140	CH	ORNL	Open	VE	7/16/2014	Unchecked	Unchecked
NCR-ORNL0702140	CH	ORNL	Closed	VE	5/28/2014	Unchecked	Unchecked

COPY

GEN3



Waste Isolation Pilot Plant RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)	1. <input type="checkbox"/> DOE <input checked="" type="checkbox"/> Contractor	2. Page 1 of 76
----------------------------------------------------------------------------------	--------------------------------------------------------------------------------------	-----------------

3. Organization Unit (Creating or Custodial Unit) Nuclear Waste Partnership (NWP)/Central Characterization Project (CCP)/National TRU Program Certification (NTPC)/Contact Handled (CH) for All Sites 4021 National Parks Highway GSA 212 Carlsbad, New Mexico 88220	4. Date 06/24/2013
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------

5. Signatures (of Appropriate Personnel)			
<i>Sheila Pearcy</i>	8/1/13	N/A	
Prepared By: Sheila Pearcy	Date	Records Liaison Officer	Date
<i>Ed Gulbransen</i>	8/1/13	<i>Michael Fox</i>	8/1/13
Approved By: Ed Gulbransen	Date	Records Officer Approval	Date
		Michael Fox	

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
1	CCP TRAINING DOCUMENTATION FILES Documentation pertaining to the training and qualification of CCP Personnel.			

COPY

COPY

Waste Isolation Pilot Plant RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)	1. <input type="checkbox"/> DOE <input checked="" type="checkbox"/> Contractor	2. Page 2 of 76
------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------	------------------------

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
1a	<p><u>CCP CH Employee Individual Training/Qualification Documentation</u> Contractor employee individual folders that contain item 1.29.1a records AND also contain: attendance/completion records of training courses or sessions that include subjects dealing with hazardous materials directly applicable to the employee's job or position. Documents the training and qualification and requalification of CCP CH Personnel. May include but not limited to the following: appointment letters; qualification letters; correspondence; On-the-Job (OJT) records; completed exams; completed qualification cards; certificates of completion; test drum data sheets; training drum evaluation data sheets; resumes; and Waste Acceptance Plan (WAP) briefings. May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>PRIVACY ACT</p> <p>Quality Assurance (QA) Records/Nonpermanent/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: Alphabetically Inclusive Dates: 2000 to Present Location: CCP Records – Skeen Whitlock Building (SWB) and/or Waste Isolation Pilot Plant (WIPP) Records Archive (WRA)</p>	ADM 1.29.1.b	Cut off at the time of separation or transfer of the employee. Screen out and destroy all item 1.29.1a(4) records. Transfer folders with remaining documents to the local Federal Records Center. Destroy 75 years after cutoff.	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.

Waste Isolation Pilot Plant RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)	1. <input type="checkbox"/> DOE <input checked="" type="checkbox"/> Contractor	2. Page 3 of 76
------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------	------------------------

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
1b	<p><u>Employee Individual Medical Examination</u> Contractor employee individual folders that contain only pass/fail and restrictions results of medical examinations. Documentation pertaining to the eye examinations performed on the Nondestructive Examination (NDE), Helium Leak Detector (HLD), and Pressure Change Leak Testing (PCLT) personnel on an annual basis. May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>EPIDEMIOLOGICAL</p> <p>PRIVACY ACT</p> <p>QA Record/Nonpermanent/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: Alphabetically Inclusive Dates: 2000 to Present Location: CCP Records – SWB and/or WRA</p>	ADM 1.29.1a.(4)	Cut off at the time of separation or transfer of the employee. Screen out and destroy all item 1.29.1a(4) records. Transfer folders with remaining documents to the local Federal Records Center. Destroy 4 years after cutoff.	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.

Waste Isolation Pilot Plant RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)	1. <input type="checkbox"/> DOE <input checked="" type="checkbox"/> Contractor	2. Page 4 of 76
------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------	-----------------

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
1c	<p>CCP Test Drum Audio/Video Media of Test Drum Qualification Contractor employee individual folders that contain item 1.29.1a records AND also contain: attendance/completion records of training courses or sessions that include subjects dealing with hazardous materials directly applicable to the employee's job or position. Documents CCP audio/video media of qualification test performed by NDE personnel. This audio/video media of qualification test is performed by NDE personnel and is the second piece of the qualification. It supports the documentation captured on the supporting hard copy record(s). May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>PRIVACY ACT</p> <p>QA Record/Nonpermanent/Validated by authorized signature and date.</p> <p>Media Type: Audio/Video Tape or DVD (Primary and Backup) Filing Order: Alpha-Numeric Inclusive Dates: 2000 to Present Location: CCP Records - SWB and/or WRA</p>	ADM 1.29.1.b	Cut off at the time of separation or transfer of the employee. Screen out and destroy all item 1.29.1a.(4) records. Transfer folders with remaining documents to the local Federal Records Center. Destroy 75 years after cutoff.	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.

**Waste Isolation Pilot Plant
RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)**

1.

 DOE Contractor

2. Page 5 of 76

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
1d	<p>CCP NDE Test Drum Inventories Documentation pertaining to the assembly of NDE test and training drums which are used to qualify radiography operators per CCP-PO-001, CCP Transuranic (TRU) Waste Characterization QA Project Plan (QAPjP) and CCP-QP-002, CCP Qualification and Training Plan. The drum assembly is representative of the Waste Matrix Codes (WMCS) for Waste Stream Profile Forms. CCP NDE Test Drum Inventory Sheet has the Test Drum Identification Number, Date, Summary Category Group, if it has a plastic liner and the contents of the drum. May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>QA Record/Nonpermanent/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: Chronologically Inclusive Dates: 2000 to Present Location: CCP Records - SWB and/or WRA</p>	Disposition Authority Pending National Archives and Records Administration (NARA) Approval.	UNSCHEDULED -Do Not Destroy-	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.
1e	<p>List of Qualified Individuals (LOQI) LOQI is a document that confirms and establishes to the field personnel who is to perform different areas of operations. It is updated each time there is a change to the qualifications of the project personnel. No longer generated as record see Item No. 1f.</p> <p>QA Record/Nonpermanent/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: Chronologically Inclusive Dates: January 2003 to September 2008 Location: CCP Records - SWB and/or WRA</p>	Disposition Authority Pending NARA Approval	UNSCHEDULED -Do not Destroy-	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.

Waste Isolation Pilot Plant RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)	1. <input type="checkbox"/> DOE <input checked="" type="checkbox"/> Contractor	2. Page 6 of 76
------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------	-----------------

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
1f	<p><u>LOOI – Non-record</u> LOOI is a document that confirms and establishes to the field personnel who is to perform different areas of operations. It is updated each time there is a change to the qualifications of the project personnel. Record is captured in the individual personnel's training files.</p> <p>Media Type: Electronic Filing Order: Chronologically Inclusive Dates: September 2008 to Present Location: CCP Records - SWB and/or WRA</p>	Non-Record	Not Applicable	Retain in Office until completion of characterization process for each site or when no longer needed in project files to support daily functions. Screen and purge as needed.
2	<p><u>QA SUMMARY REPORTING, ASSESSMENT/AUDIT, AND SURVEILLANCE DOCUMENTATION</u> QA documentation pertaining to the reporting, assessment/audit, and surveillance activities of the CCP QA program. Includes the identification, classification, control, and correction of conditions adverse to quality and nonconforming items, activities, and processes associated with the CCP – all sites.</p>			

Waste Isolation Pilot Plant RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)	1. <input type="checkbox"/> DOE <input checked="" type="checkbox"/> Contractor	2. Page 7 of 76
------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------	------------------------

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
2a	<p>CCP CH Nonconformance Reports (NCRs) Audit and investigative case files and reports that pertain to environmental, health, and safety topics, cases or concerns. NCRs created for the CCP CH sites which document the process for identifying, documenting, controlling, evaluating, and dispositioning nonconforming items. May include Carlsbad Field Office (CBFO) notifications and supporting documentation such as copies of applicable procedures, etc. May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>QA Record/Nonpermanent/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: Alpha-Numeric Inclusive Dates: 2000 to Present Location: CCP Records - SWB and/or WRA</p>	ADM 22.4	Cut off upon completion of audit or investigation. Destroy when 75 years old.	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.
2b	<p>NCR Log Reconciliation Report NCR Log Reconciliation Report documents and verifies that all NCR numbers at the end of each calendar year are reconciled against the Master Log and in the Nonconformance Report Module (NCRM). Includes as attachment the information from NCR logs. May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>QA Record/Nonpermanent/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: Chronologically Inclusive Dates: 2004 to Present Location: CCP Records - SWB and/or WRA</p>	Disposition Authority Pending NARA Approval.	UNSCHEDULED -Do Not Destroy-	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.

Waste Isolation Pilot Plant RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)	1. <input type="checkbox"/> DOE <input checked="" type="checkbox"/> Contractor	2. Page 8 of 76
------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------	-----------------

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
2c	<p><u>CCP Corrective Action Reports (CARs)</u> Audit and investigative case files and reports that pertain to environmental, health, and safety topics, cases or concerns. CARs created for All CH Sites which document the process for identifying, documenting, controlling, evaluating, dispositioning, and verifying completion of corrective actions for conditions adverse to quality related to failures, malfunctions, deficiencies, and technical inadequacies. May include but not limited to supporting documentation such as copies of applicable procedures and/or Deficiency Evaluation Form if applicable, as well as the CAR Logs. May also include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>QA Record/Nonpermanent/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: Alpha-Numeric Inclusive Dates: 2000 to Present Location: CCP Records - SWB and/or WRA</p>	ADM 22.4	Cut off upon completion of audit or investigation. Destroy when 75 years old.	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.

Waste Isolation Pilot Plant RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)	1. <input type="checkbox"/> DOE <input checked="" type="checkbox"/> Contractor	2. Page 9 of 76
------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------	-----------------

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
2d	<p><u>CCP Surveillance Program Documentation</u> Audit and investigative case files and reports that pertain to environmental, health, and safety topics, cases or concerns. Documentation pertaining to the planning, performing, documenting, and reporting independent surveillances of TRU CCP all sites waste characterization activities. Includes but not limited to surveillance plan formats, surveillance reports, surveillance checklists and surveillance logs. May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>QA Record/Nonpermanent/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: Alpha-Numeric Inclusive Dates: 2000 to Present Location: CCP Records - SWB and/or WRA</p>	ADM 22.4	Cut off upon completion of audit or investigation. Destroy when 75 years old.	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.
2e	<p><u>QA Trend Reports</u> Audit and investigative case files and reports that pertain to environmental, health, and safety topics, cases or concerns. QA Trend Reports document trending and analyses of item characteristics and reliability, process implementation, and other quality-related information. It is used to identify items, services, activities, and processes that need improvements.</p> <p>QA Record/Nonpermanent/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: Chronological Inclusive Dates: 2001 to Present Location: CCP Records - SWB and/or WRA</p>	ADM 22.4	Cut off upon completion of audit or investigation. Destroy when 75 years old.	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.

Waste Isolation Pilot Plant RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)	1. <input type="checkbox"/> DOE <input checked="" type="checkbox"/> Contractor	2. Page 10 of 76
------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------	-------------------------

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
3	<p>TEST PLAN/PROCEDURE DOCUMENTATION Test plan/procedure documentation provides the method for test control of items that are considered to impact the quality of the characterization, certification, packaging, or transportation of waste for the CCP. The documents address requirements and responsibilities for testing activities performed to ensure items related to CCP activities meet established design, performance, and quality requirements. May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>QA Record/Nonpermanent/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: Chronological Inclusive Dates: 2003 to Present Location: CCP Records - SWB and/or WRA</p>	Disposition Authority Pending NARA Approval.	UNSCHEDULED -Do Not Destroy-	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.

Waste Isolation Pilot Plant RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)	1. <input type="checkbox"/> DOE <input checked="" type="checkbox"/> Contractor	2. Page 11 of 76
------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------	------------------

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
4	<p><u>CCP CH TRU SOFTWARE QA (SQA) Documentation</u> Database system development records and documentation records which support the maintenance and operation of tracking systems. CCP CH TRU SQA documentation pertains to the development, procurement, maintenance, and use of computer software that is important to the waste characterization and certification for the CCP CH. Includes but not limited to the following documentation for: Exempt Software; Commercial Off the Shelf (COTS) Software; Application within COTS; Qualified Supplier Software; Non-Qualified Supplier Software; and CCP Software. May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>QA Record/Nonpermanent/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: Site and Alphabetically by Software Name Inclusive Dates: 2000 to Present Location: CCP Records – SWB and/or WRA</p>	ENV 1.g.(3)(b)	Destroy or delete upon authorized deletion of related system.	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.

Waste Isolation Pilot Plant RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)	1. <input type="checkbox"/> DOE <input checked="" type="checkbox"/> Contractor	2. Page 12 of 76
------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------	-------------------------

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
5	<p><u>OPERATION LOGBOOKS</u> Logbooks listing significant action, daily surveillances and maintenance activities occurring during normal operations of applicable facility. Logbooks, log sheets (data record sheets) which are used for CCP personnel to document technical work processes and that are obtained during gathering activities. May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>QA Record/ Nonpermanent/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: Alpha-Numeric Inclusive Dates: 2000 to Present Location: CCP Records - SWB and/or WRA</p>	ENV 1.e(6)	Destroy when 75 years old.	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.
6	<p><u>CCP CH NONDESTRUCTIVE ASSAY (NDA) DOCUMENTATION</u> NDA is a series of measurement techniques that are applied to nuclear fuel and nuclear weapons materials. The techniques measure radiation induced or emitted spontaneously from the nuclear material. The measurements are nondestructive in that they do not alter the physical or chemical state of the material.</p>			

Waste Isolation Pilot Plant RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)	1. <input type="checkbox"/> DOE <input checked="" type="checkbox"/> Contractor	2. Page 13 of 76
------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------	------------------

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
6a	<p><u>CCP CH NDA Batch Data Reports (BDRs)</u> Records indicating type (classification) and degree of contamination date of disposal, method of disposal (burial, landfill, etc.), volume, and disposal location. Records may include engineering studies, reports of unusual problems encountered during removal or treatment. NDA BDRs are the documentation that pertains to a series of measurement techniques that are applied to nuclear fuel and nuclear weapons materials. The techniques measure radiation induced or emitted spontaneously from the nuclear material. The measurements are nondestructive in that they do not alter the physical or chemical state of the material. The documentation in each BDR is from data generation level through the project level Verification & Validation (V&V) and includes Project Level Checklists. May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>QA Record/Lifetime/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: Alpha-Numeric Inclusive Dates: 2000 to Present Location: CCP Records - SWB and/or WRA</p>	ENV 6.b	Permanent. Cutoff 5 years after disposal. Transfer to NARA 25 years after cutoff.	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.

Waste Isolation Pilot Plant RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)	1. <input type="checkbox"/> DOE <input checked="" type="checkbox"/> Contractor	2. Page 14 of 76
------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------	-------------------------

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
6b	<p><u>CCP CH NDA – Analytical Raw Data</u> Analytical raw data generated during the NDA process on the systems software. It is captured on CDs and a primary and back up CD is created. This includes the Radioassay Raw Data Sheet Information. May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>QA Record/Nonpermanent/Validated by authorized signature and date.</p> <p>Media Type: Electronic – CDs Filing Order: Alpha-Numeric Inclusive Dates: 2000 to Present Location: CCP Records - SWB and/or WRA</p>	Disposition Authority Pending NARA Approval	UNSCHEDULED - Do Not Destroy -	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.

Waste Isolation Pilot Plant RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)	1. <input type="checkbox"/> DOE <input checked="" type="checkbox"/> Contractor	2. Page 15 of 76
------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------	------------------

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
6c	<p><u>NDA Total Measurement Uncertainty (TMU) Reports</u> TMU reports estimate the potential error in measurements taken by an assay system on a waste container within the waste stream. An NDA measurement of a waste container may deviate from the true value as a result of bias, random error, or a combination of the two. The TMU is composed of bias and random errors and is typically expressed as an interval extending below and above the measured value. TMU is used to determine whether the radioactivity of individual waste containers may exceed specific criteria. May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>QA Record/Nonpermanent/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: Alpha-Numeric Inclusive Dates: 2000 to Present Location: CCP Records - SWB and/or WRA</p>	Disposition Authority Pending NARA Approval.	UNSCHEDULED -Do Not Destroy-	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.

Waste Isolation Pilot Plant RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)	1. <input type="checkbox"/> DOE <input checked="" type="checkbox"/> Contractor	2. Page 16 of 76
------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------	-------------------------

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
6d	<p><u>NDA Calibration Verification and Calibration and Validation Reports</u> NDA Calibration and Validation Reports document the results of qualification testing of the Mobile Assay System for all CH sites. New active and passive calibrations are described together with results of testing using uranium, californium and plutonium sources. May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>QA Record/Nonpermanent/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: Alpha-Numeric Inclusive Dates: 2000 to Present Location: CCP Records - SWB and/or WRA</p>	Disposition Authority Pending NARA Approval	UNSCHEDULED -Do Not Destroy-	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.

Waste Isolation Pilot Plant RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)	1. <input type="checkbox"/> DOE <input checked="" type="checkbox"/> Contractor	2. Page 17 of 76
------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------	------------------

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
6e	<p><u>NDA Six-Month Interfering Matrix Reports</u> Reports documenting waste management activities for required compliance reports, dumpster violations, dangerous waste reports, and decay heat reports. The Six Month Summary of Weekly Interfering Matrix Report documents the requirements of the CH TRU Waste Acceptance Criteria (WAC) for the WIPP. It demonstrates that over the past six-month period, the operating range of the assay system has been tested in each applicable surrogate waste matrix and the instrument performance has been acceptable. The report is done every six months. May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>EPIDEMIOLOGICAL</p> <p>QA Record/Nonpermanent/Validated by authorized signature and date</p> <p>Media Type: Hard Copy Filing Order: Alpha-Numeric Inclusive Dates: 2000 to Present Location: CCP Records - SWB and/or WRA</p>	ENV 1.d.(10)(c)	Destroy 5 years after final closure of facility.	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.

Waste Isolation Pilot Plant RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)	1. <input type="checkbox"/> DOE <input checked="" type="checkbox"/> Contractor	2. Page 18 of 76
------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------	-------------------------

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
6f	<p><u>NDA Hardware and Software Settings Form(s)</u> NDA Hardware and Software Settings Form are used to document the hardware and software settings for the Drum Waste Assay System. May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>QA Record/Nonpermanent/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: Chronological Inclusive Dates: 2006 to Present Location: CCP Records - SWB and/or WRA</p>	Disposition Authority Pending NARA Approval.	UNSCHEDULED -Do Not Destroy-	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.

**Waste Isolation Pilot Plant
RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)**

1.
 DOE
 Contractor

2. Page 19 of 76

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
6g	<p><u>NDA Performance Demonstration Plan (PDP) Documentation</u> Waste management reports documenting waste management activities including hazardous waste reports, hazardous substance reports, waste characterization reports and Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)/Resource Conservation and Recovery Act (RCRA) unit reports. Documentation pertaining to the CCP NDA PDP is to demonstrate the capability of each participating measurement facility to meet the data quality objectives stated in Department of Energy (DOE)/WIPP-02-3122, CH TRU WAC for the WIPP for assay of TRU waste. The PDP is used by CBFO to assess and approve characterization services for TRU waste. This is an annual requirement. May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>QA Record/Nonpermanent/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: Alpha-Numeric for Cycle Inclusive Dates : 2000 to Present Location: CCP Records - SWB and/or WRA</p>	Disposition Authority Pending NARA Approval.	UNSCHEDULED -Do Not Destroy-	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.

Waste Isolation Pilot Plant RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)	1. <input type="checkbox"/> DOE <input checked="" type="checkbox"/> Contractor	2. Page 20 of 76
------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------	-------------------------

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
6h	<p>Detector Dewar Fill Log Operating logbooks listing significant action, daily surveillances and maintenance activities occurring during normal operations of applicable facility. Detector Dewar Fill Log is used to document each time that the detector dewar is filled with Liquid Nitrogen (LN) as required. Fill date, initials of operator and comments if applicable are noted on the log. May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>QA Record/Nonpermanent/Validated by authorized initials and date.</p> <p>Media Type: Hard Copy Filing Order: Chronologically Inclusive Dates: 2006 to Present Location: CCP Records - SWB and/or WRA</p>	ENV 1.e.6	Destroy when 75 years old.	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.

Waste Isolation Pilot Plant RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)	1. <input type="checkbox"/> DOE <input checked="" type="checkbox"/> Contractor	2. Page 21 of 76
------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------	------------------

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
6i	<p><u>Mobile Imaging Passive Action Neutron (IPAN)/Gamma Energy Assay (GEA) Maintenance Checklist</u> Operating logbooks listing significant action, daily surveillances and maintenance activities occurring during normal operations of applicable facility. Maintenance record CCP mobile IPAN/GEA Checklist is used to document weekly and/or monthly maintenance checks on the IPAN/GEA system which performs the NDA process. No longer generated at this time. May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>QA Record/Nonpermanent/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: Equipment and Date Inclusive Dates: 2001 to 2006 Location: CCP Records - SWB and/or WRA</p>	ENV 1.e.6	Destroy when 75 years old.	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.
7	<p><u>CCP CH NDE</u> NDE (Radiography) is a nondestructive qualitative and quantitative technique that involves x-ray scanning of waste containers to identify and verify waste container contents. NDE is used to examine every waste container to verify its physical form. It can detect prohibited items. NDE is also used to confirm that the physical form of the waste matches its waste stream description.</p>			

Waste Isolation Pilot Plant RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)	1. <input type="checkbox"/> DOE <input checked="" type="checkbox"/> Contractor	2. Page 22 of 76
------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------	-------------------------

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
7a	<p>CCP CH NDE BDRs Records indicating type (classification) and degree of contamination, date of disposal, method of disposal (burial, landfill, etc.), volume, and disposal location. Records may include engineering studies, reports of unusual problems encountered during removal or treatment. CCP NDE BDRs processed on the Real Time Radiography (RTR) systems. NDE (Radiography) is a nondestructive qualitative and quantitative technique that involves x-ray scanning of waste containers to identify and verify waste container contents. NDE is used to examine every waste container to verify its physical form. It can detect prohibited items. NDE is also used to confirm that the physical form of the waste matches its waste stream description. BDR may include but not limited to the following: Cover Sheet, Batch Narrative, Independent Technical Review (ITR) Checklist, Independent Technical Supervisor (TS) Checklist, Radiography Data Sheet, Measurement Control Report, copies of NCR(s) if applicable and Site Project Manager (SPM) Checklists. May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>QA Record/Lifetime/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: Alpha-Numeric Inclusive Dates: 2000 to Present Location: CCP Records - SWB and/or WRA</p>	ENV 6.b	Permanent. Cutoff 5 years after disposal. Transfer to NARA 25 years after cutoff.	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.

Waste Isolation Pilot Plant RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)	1. <input type="checkbox"/> DOE <input checked="" type="checkbox"/> Contractor	2. Page 23 of 76
------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------	------------------

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
7b	<p><u>Audio/Visual Media of The Radiography Scans</u> Audio/Visual Media captured on DVDs while performing NDE of CH TRU waste containers using the RTR system. May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>QA Record/Nonpermanent/Validated by authorized signature and date on supporting BDR.</p> <p>Media Type: Audio/Visual VHS Tapes or DVDs Filing Order: Alpha-Numeric Inclusive Dates: 2001 to Present Location: CCP Records - SWB and/or WRA</p>	Disposition Authority Pending NARA Approval.	UNSCHEDULED -Do Not Destroy-	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.
7c	<p><u>CCP Radiography System Safety Checks</u> CCP Radiography System Safety checks or Pre-Operational Checklists are completed during the actions for startup, daily operational safety checks, operations, and shutdown of RTR System that is used to perform RTR. May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>QA Record/Nonpermanent/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: Chronological Inclusive Dates: 2001 to Present Location: CCP Records - SWB and/or WRA</p>	Disposition Authority Pending NARA Approval.	UNSCHEDULED -Do Not Destroy-	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.

Waste Isolation Pilot Plant RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)	1. <input type="checkbox"/> DOE <input checked="" type="checkbox"/> Contractor	2. Page 24 of 76
------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------	------------------

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
7d	<p><u>NDE Fast Scanning Documentation</u> NDE fast scanning documentation is done to screen candidate containers to determine if they qualify for the extensive formal certification process. Screening is defined as a preliminary check to determine if a drum contains obvious prohibited items such as free liquids. This process is not used to certify waste. Includes both the RTR Measurement Control Report and the RTR Drum Quick Screening Log Sheet. May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>Media Type: Hard Copy Filing Order: Chronological Inclusive Dates: 2001 to Present Location: CCP Records - SWB and/or WRA</p>	Disposition Authority Pending NARA Approval.	UNSCHEDULED -Do Not Destroy-	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.
7e	<p><u>RTR Batch Weight Records</u> CCP RTR Batch Weight Record is used to document the drum numbers, gross weight, tare weight, net weight, and percent fill of each drum being processed in a BDR in the NDE operations. May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>QA Record/Nonpermanent/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: Alpha-Numeric Inclusive Dates: 2002 to Present Location: CCP Records - SWB and/or WRA</p>	Disposition Authority Pending NARA Approval.	UNSCHEDULED -Do Not Destroy-	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.

**Waste Isolation Pilot Plant
RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)**

1.
 DOE
 Contractor

2. Page 25 of 76

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
7f	<p>CCP CH NDE Quarterly Reports Environmental monitoring reports provided to identify the progress on the environmental monitoring plans or on other related subjects. NDE quarterly reports pertain to the quarterly review performed on randomly selected data completed through SPM review, within the last 3 months time frame. The reports give information regarding the report of data generation level review, V&V performed on a minimum of one randomly chosen waste container each quarter. The SPM uses this information to document that the data generation level data review is being performed according to procedures. This includes the request and results correspondence.</p> <p>QA Record/Lifetime/Validated by authorized signature and date on memorandum.</p> <p>Media Type: Hard Copy Filing Order: Chronological and Quarter Number Inclusive Dates: 2001 to Present Location: CCP Records - SWB and/or WRA</p>	ENV 1.d.8.a	Destroy when 75 years old. Cutoff when reports are superseded, obsolete, or canceled.	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.
8	<p>HEADSPACE GAS (HSG) BDRs HSG BDRs are combined information derived from the HSG sampling process and preliminary sampling preparation activities, or from the HSG analytical process and post-analytical activities. Each BDR is for a batch of up to 20 HSG samples and may also include QA/Quality Control (QC) samples analytical only.</p>			
8a	<p>CCP HSG BDRs - Online Records indicating type (classification) and degree of contamination, date of disposal, method of disposal (burial, landfill, etc.), volume, and disposal location. Records may include engineering studies, reports of unusual problems encountered during removal or treatment. CCP HSG Sampling and analytical</p>	ENV 6.b	Permanent. Cutoff 5 years after disposal. Transfer to NARA 25 years after cutoff.	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily

Waste Isolation Pilot Plant RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)	1. <input type="checkbox"/> DOE <input checked="" type="checkbox"/> Contractor	2. Page 26 of 76
------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------	------------------

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
	<p>BDRs are derived from the HSG sampling or analytical processes and include preliminary sampling preparation activities (sampling only) or follow-up data processing activities for the Online system. CCP HSG BDRs are for combined information of analytical data from the analysis of TRU-mixed waste for a batch of up to 20 HSG or homogenous waste samples. These BDRs may include but are not limited to the following: Cover page, Table of Contents, Case Narrative, Operator's Checklist, ITR Checklist, TS Checklist, Form 1A Volatile Organic Analysis Data Sheet, Form 1A Duplicate Volatile Organic Analysis Data Sheet, Form 1E Volatile Organic Analysis Data Sheet Tentatively Identified Compounds (TIC), Form 3A On-line Control Sample (OCS) Accuracy Form, Form 3A Duplicate OCS Accuracy Form, Form 3B OCS/OCS Duplicate Precision Form, Form 3C Sample/Sample Duplicate Precision Form, Form 4A Volatile Organic Method Blank Summary, Form 5A Volatile Instrument Performance Check Bromofluorobenzene (BDB), Form 6A Volatile Organic Initial Calibration (ICAL) Data, Form 7A Volatile Organic Continuing Calibration Check, Form 8A Volatile Organic Internal Standard Report Area and Retention Time (RT) Summary, CCP HSG Drum Age Criteria (DAC) Form, Temperature Log, Freezer Temperature Data Log, and SPM Project Level Checklists. No longer generating new online data. May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>QA Record/Lifetime/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: Alpha-Numeric Inclusive Dates: 2001 to 2007 Location: CCP Records - SWB and/or WRA</p>			<p>functions or audits. Transfer to the WRA within one year for storage and retention.</p>

Waste Isolation Pilot Plant RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)	1. <input type="checkbox"/> DOE <input checked="" type="checkbox"/> Contractor	2. Page 27 of 76
------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------	-------------------------

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
8b	<p><u>CCP HSG ICAL Documentation</u> ICAL documentation pertaining to both Gas Analysis and Solid Analysis processes in an analysis of analytical standards for series of different specified concentrations; used to define the linearity and dynamic range of instruments. May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>QA Record/Nonpermanent/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: Alpha-Numeric Inclusive Dates: 2000 to Present Location: CCP Records - SWB and/or WRA</p>	Disposition Authority Pending NARA Approval.	UNSCHEDULED -Do Not Destroy-	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.
8c	<p><u>CCP HSG Method Detection Limits (MDL) Documentation</u> MDL documentation for both Gas Analysis and Solids Analysis processes which documents the data defined as the minimum concentration of a substance that can be measured and reported with 99% confidence that the value is above zero. May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>QA Record/Nonpermanent/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: Alpha-Numeric Inclusive Dates: 2000 to Present Location: CCP Records - SWB and/or WRA</p>	Disposition Authority Pending NARA Approval.	UNSCHEDULED -Do Not Destroy-	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.

Waste Isolation Pilot Plant RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)	1. <input type="checkbox"/> DOE <input checked="" type="checkbox"/> Contractor	2. Page 28 of 76
------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------	-------------------------

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
8d	<p><u>CCP HSG Method Performance Documentation (MPD)</u> These data packages consist of documentation generated during transport and receipt of field samples, sample movement in the laboratory, preparation for analysis, laboratory analyses output, raw and processed data, analytical results, reanalysis, QC sample results and instrument calibration data, plus a summary of final results for each batch. CCP HSG MPD is an analytical method that demonstrates through documented system and instrument tests, and participation in the HSG instrument tests and HGS PDP analysis of blind samples. May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>QA Record/Nonpermanent/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: Alpha-Numeric Inclusive Dates: 2000 to Present Location: CCP Records - SWB and/or WRA</p>	ENV 5.c(1)	Destroy in 75 years.	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.

Waste Isolation Pilot Plant RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)	1. <input type="checkbox"/> DOE <input checked="" type="checkbox"/> Contractor	2. Page 29 of 76
------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------	-------------------------

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
8e	<p><u>CCP Needle Blank Documentation</u> These records consist of control records pertaining to work performed in analytical laboratories. Documentation pertains to the process of taking 10 percent of the needles and performing a check to assure cleanliness. May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>QA Record/Nonpermanent/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: Chronological Inclusive Dates: 2004 to Present Location: CCP Records - SWB and/or WRA</p>	ENV 5.d	Destroy when 10 years old.	Retain in CCP Records. Destroy when 10 years old. Screen and purge annually.
8f	<p><u>CCP Equipment Blanks Documentation</u> These records consist of control records pertaining to work performed in analytical laboratories. Documentation pertains to the process of taking 10 percent of the equipment and performing a check to assure cleanliness. May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>QA Record/Nonpermanent/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: Chronological Inclusive Dates: 2004 to Present Location: CCP Records - SWB and/or WRA</p>	ENV 5.d	Destroy when 10 years old.	Retain in CCP Records. Destroy when 10 years old. Screen and purge annually.

Waste Isolation Pilot Plant RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)	1. <input type="checkbox"/> DOE <input checked="" type="checkbox"/> Contractor	2. Page 30 of 76
------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------	-------------------------

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
8g	<p><u>HSG – Analytical Raw Data</u> Analytical raw data generated during the HSG process on the Online System software. It is captured on CDs - primary and backup CD is created.</p> <p>QA Record/Nonpermanent/Validated by authorized signature/initial and date.</p> <p>Media Type: CD Filing Order: Alpha-Numeric Inclusive Dates: 2000 to Present Location: CCP Records - SWB and/or WRA</p>	Disposition Authority Pending NARA Approval.	UNSCHEDULED -Do Not Destroy-	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.
8h	<p><u>Container Filter Change Out Forms</u> Container Filter Change Out Forms are used to document when a filter is replaced on a characterization drum. It identifies the container number, filter install date, filter model number, filter manufacturer date, filter serial number, filter torque value, and calibration information of torque wrench used to perform replacement. This form used to be called Drum Filter Change Out Form. May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>QA Record/Nonpermanent/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: Alpha-Numeric Inclusive Dates: 2000 to Present Location: CCP Records - SWB and/or WRA</p>	Disposition Authority Pending NARA Approval.	UNSCHEDULED -Do Not Destroy-	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.

Waste Isolation Pilot Plant RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)	1. <input type="checkbox"/> DOE <input checked="" type="checkbox"/> Contractor	2. Page 31 of 76
------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------	-------------------------

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
8i	<p>CCP CH HSG BDRs – Summa Sampling Records indicating type (classification) and degree of contamination, date of disposal, method of disposal (burial, landfill, etc.), volume, and disposal location. Records may include engineering studies, reports of unusual problems encountered during removal or treatment. CCP CH HSG – Summa BDRs are reports that document the manual sampling of HSG in TRU waste containers. The sampling is done using a side port needle attached to a SUMMA canister. After sampling the canisters are sealed and prepared for shipment/transport to a laboratory for analysis. The BDR may include but is not limited to the following: Cover Sheet, Table of Contents, ITR Checklist, TS Review Checklist, Facility Quality Assurance Officer (FQAO) Review Checklist, 72-Hour Temperature Equilibration Plots, copies of NCRs if applicable, Chain of Custody/Canister Tag, Sample Drum Data Form, Shipment Request (or equivalent), and SPM Project Level Checklist. May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>QA Record/Lifetime/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: Alpha-Numeric Inclusive Dates: 2004 to Present Location: CCP Records - SWB and/or WRA</p>	ENV 6.b	Permanent. Cutoff 5 years after disposal. Transfer to NARA 25 years after cutoff.	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.

Waste Isolation Pilot Plant RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)	1. <input type="checkbox"/> DOE <input checked="" type="checkbox"/> Contractor	2. Page 32 of 76
------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------	------------------

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
8j	<p><u>CCP CH Analysis of Gas Samples BDRs – Environmental Chemistry Laboratory (ECL)</u> Records indicating type (classification) and degree of contamination, date of disposal, method of disposal (burial, landfill, etc.), volume, and disposal location. Records may include engineering studies, reports of unusual problems encountered during removal or treatment. CCP CH Analysis of Gas Samples BDRs are reports that document the analysis of gas samples of Volatile Organic Compound (VOC) in HSG samples contained in SUMMA® canisters. May include but not limited to the following: Data Report cover page and Table of Contents, Sample Identification Table/Analysis Request Form, Sample Custody Documents and Sample Tags, Sample Results, QA Measurement Results, Calibration Results, and Data Review Checklists and SPM Project Level Checklist. This includes BDRs for external sites such as Hanford and Advanced Mixed Waste TRU Program (AMWTP). May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>QA Record/Lifetime/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: Alpha-Numeric Inclusive Dates: 2004 to Present Location: CCP Records - SWB and/or WRA</p>	ENV 6.b	Permanent. Cutoff 5 years after disposal. Transfer to NARA 25 years after cutoff.	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.

Waste Isolation Pilot Plant RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)	1. <input type="checkbox"/> DOE <input checked="" type="checkbox"/> Contractor	2. Page 33 of 76
------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------	------------------

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
8k	<p><u>CCP CH Analysis of Gas Samples BDRs - Raw Data Supporting Data Packages - ECL</u> CCP CH Analysis of Gas Samples BDRs raw data supporting data packages that document the analysis of gas samples of VOC HSG samples contained in SUMMA® canisters. These packages may contain but are not limited to the following: Raw Data/Instrument Printouts and copies of applicable pages of logbooks. This includes supporting documents to BDRs for external sites such as Hanford and AMWTP. May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>QA Record/Nonpermanent/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: Alpha-Numeric Inclusive Dates: 2004 to Present Location: CCP Records - SWB and/or WRA</p>	Disposition Authority Pending NARA Approval.	UNSCHEDULED -Do Not Destroy-	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.

Waste Isolation Pilot Plant RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)	1. <input type="checkbox"/> DOE <input checked="" type="checkbox"/> Contractor	2. Page 34 of 76
------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------	------------------

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
81	<p><u>CCP CH HSG Quarterly Reports</u> Environmental monitoring reports provided to identify the progress on the environmental monitoring plans or on other related subjects. HSG quarterly reports pertain to the quarterly review performed on randomly selected data completed through SPM review, within the last 3 months time frame. The reports give information regarding the repeat of data generation level review, V&V performed on a minimum of one randomly chosen waste container each quarter. The SPM uses this information to document that the data generation level data review is being performed according to procedures. This includes the request and results correspondence.</p> <p>QA Record/Lifetime/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: Chronological and Quarter Inclusive Dates: 2001 to Present Location: CCP Records - SWB and/or WRA</p>	ENV 1.d.8.a	Destroy when 75 years old. Cutoff when reports are superseded, obsolete, or canceled.	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.

Waste Isolation Pilot Plant RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)	1. <input type="checkbox"/> DOE <input checked="" type="checkbox"/> Contractor	2. Page 35 of 76
------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------	-------------------------

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
8m	<p><u>HSG PDP Documentation</u> Hazardous waste reports, hazardous substance reports, waste characterization reports, CERCLA/RCRA unit reports. Documentation pertaining to the CCP HSG PDP is to demonstrate the capability of each participating measurement facility to meet the data quality objectives stated in DOE/WIPP-02-3122, CH TRU WAC for the WIPP for assay of TRU waste. The PDP is used by CBFO to assess and approve characterization services for TRU waste. This is an annual requirement. May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>QA Record/Nonpermanent/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: PDP Number and Process Inclusive Dates: 2000 to Present Location: CCP Records - SWB and/or WRA</p>	Disposition Authority Pending NARA Approval.	UNSCHEDULED -Do Not Destroy-	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.
8n	<p><u>HSG Random Sample Selection Memorandums</u> HSG Random Sample Memorandums document the random selection for HSG sampling and analysis. It includes at a minimum a memorandum identifying the random selection with attached HSG Random Sample Selection Listing.</p> <p>QA Record/Nonpermanent/Validated by authorized signature and date on memorandum.</p> <p>Media Type: Hard Copy Filing Order: Chronological Inclusive Dates: 2001 to Present Location: CCP Records - SWB and/or WRA</p>	Disposition Authority Pending NARA Approval.	UNSCHEDULED -Do Not Destroy-	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.

Waste Isolation Pilot Plant RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)	1. <input type="checkbox"/> DOE <input checked="" type="checkbox"/> Contractor	2. Page 36 of 76
------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------	------------------

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
9	<u>FLAMMABLE GAS ANALYSIS (FGA) DOCUMENTATION</u> FGA documentation pertains to the process to establish the concentration of flammable gas/ VOCs, hydrogen and methane in a waste container intended for shipment.			
9a	<u>FGA BDRs</u> Records indicating type (classification) and degree of contamination, date of disposal, method of disposal (burial, landfill, etc.), volume, and disposal location. Records may include engineering studies, reports of unusual problems encountered during removal or treatment. FGA BDRs are generated at all CH sites to establish the concentration of flammable gas/VOCs, hydrogen, and methane in a waste container intended for shipment. Procedure used is DOE/WIPP-06-3345. May include Attachment 2, CCP Records Transmittal/Receiving Form(s). QA Record/Lifetime/Validated by authorized signature and date. Media Type: Hard Copy Filing Order: Alpha-Numeric Inclusive Dates: 2005 to Present Location: CCP Records - SWB and/or WRA	ENV 6.b	Permanent. Cutoff 5 years after disposal. Transfer to NARA 25 years after cutoff.	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.

**Waste Isolation Pilot Plant
RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)**

1.

 DOE Contractor

2. Page 37 of 76

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
9b	<p><u>CCP FGA ICAL Documentation</u> CCP FGA ICAL documentation is an analysis of analytical standards for series of different specified concentrations; used to define the linearity and dynamic range of the response of the mass spectrometer or electron capture detector to the target compounds. Procedure used is DOE/WIPP-06-3345. May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>QA Record/Nonpermanent/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: Alpha-Numeric Inclusive Dates: 2005 to Present Location: CCP Records - SWB and/or WRA</p>	Disposition Authority Pending NARA Approval.	UNSCHEDULED -Do Not Destroy-	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.
9c	<p><u>CCP FGA MDL Documentation</u> CCP FGA MDL documentation pertains to and is defined as the minimum concentration of a substance that can be measured and reported with 99% confidence that the value is above zero. Procedure used is DOE/WIPP-06-3345. May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>QA Record/Nonpermanent/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: Alpha-Numeric Inclusive Dates: 2005 to Present Location: CCP Records - SWB and/or WRA</p>	Disposition Authority Pending NARA Approval.	UNSCHEDULED -Do Not Destroy-	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.
10	<p><u>SOLIDS SAMPLING BDRs</u> Documentation pertaining to the process of Solids Sampling which is the random sample collection and sample data collection.</p>			

Waste Isolation Pilot Plant RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)	1. <input type="checkbox"/> DOE <input checked="" type="checkbox"/> Contractor	2. Page 38 of 76
------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------	-------------------------

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
10a	<p>Solids Sampling BDRs Records indicating type (classification) and degree of contamination, date of disposal, method of disposal (burial, landfill, etc.), volume, and disposal location. Records may include engineering studies, reports of unusual problems encountered during removal or treatment. Documentation pertaining to the process of Solids Sampling which is the random sample collection and sample data collection. The BDR may include but is not limited to the following: Sample Tracking Form, Sample Chain-of-Custody Form, Sampling ITR Checklist, Sampling TS Review Checklist, Sampling FQAO Review Checklist, Sampling BDR – Table of Contents, Solids Sampling BDR – Cover Sheet, Copy of CCP Waste Visual Examination (VE) Technique Data Form, Copy of NCR(s) if applicable, Temperature Data Logger Sheets, Certification of Cleanliness for Sampling Equipment, and V&V Checklists. May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>QA Record/Lifetime/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: Alpha-Numeric Inclusive Dates: 2004 to Present Location: CCP Records - SWB and/or WRA</p>	ENV 6.b	Permanent. Cutoff 5 years after disposal. Transfer to NARA 25 years after cutoff.	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.

Waste Isolation Pilot Plant RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)	1. <input type="checkbox"/> DOE <input checked="" type="checkbox"/> Contractor	2. Page 39 of 76
------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------	-------------------------

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
10 b	<p>Solids Analysis BDRs – Analytical Laboratories Department (ALD) Data packages consisting of documentation generated during transport and receipt of field samples, sample movement in the laboratory, preparation for analysis, laboratory analyses output, raw and processed data, analytical results, reanalysis, QC sample results and instrument calibration data, plus a summary of final results for each batch. CCP CH Analysis of Solid Sample BDRs are reports that document the analysis of solid samples of VOC, non-halogenated volatile compounds (NHVOC), semi-volatile compounds (SVOC), and Metals. May include but not limited to the following: Data Report, Cover Page, Table of Contents, Sample Custody Documents, Sample Results, QC Results, Calibration Results, Data Review Checklists and SPM Project Level Checklist. This includes BDRs for external sites. May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>QA Record/Lifetime/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: Alpha-Numeric Inclusive Dates: 2004 to Present Location: CCP Records - SWB and/or WRA</p>	ENV 5.c.1	Destroy in 75 years.	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.

Waste Isolation Pilot Plant RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)	1. <input type="checkbox"/> DOE <input checked="" type="checkbox"/> Contractor	2. Page 40 of 76
------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------	------------------

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
10c	<p><u>CCP Solid Analysis BDRs – Raw Data Supporting Data Package (ALD)</u> CCP CH Solid Analysis BDRs raw data supporting data packages that document the analysis of VOC, NHVOC, SVOC and Metals in solid analysis. These packages may contain but are not limited to the following: Raw Data/Instrument Printouts, copies of applicable pages of Digestion Record and copies of applicable pages of logbooks. This is supporting documents to all solids analysis BDRs for external sites such as Hanford and AMWTP. May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>QA Record/Nonpermanent/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: Alpha-Numeric Inclusive Dates: 2004 to Present Location: CCP Records - SWB and/or WRA</p>	Disposition Authority Pending NARA Approval.	UNSCHEDULED -Do Not Destroy-	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.
10d	<p><u>Solids Sampling Random Selection Memorandum</u> Solids Sampling Random Selection Memorandums document the random selection for solids sampling and analysis. It includes at a minimum a memorandum identifying the random selection with attached Solids Random Sample List/Waste Stream Container List.</p> <p>QA Record/Nonpermanent/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: Chronological Inclusive Dates: 2004 to Present Location: CCP Records - SWB and/or WRA</p>	Disposition Authority Pending NARA Approval.	UNSCHEDULED -Do Not Destroy-	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.

Waste Isolation Pilot Plant RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)	1. <input type="checkbox"/> DOE <input checked="" type="checkbox"/> Contractor	2. Page 41 of 76
------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------	------------------

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
10e	<u>Instrument Detection Limit (IDL) Determination Files</u> IDL determination files pertain to the documentation of the detection limits of the equipment. It is performed every six months. May include Attachment 2, CCP Records Transmittal/Receiving Form(s). QA Record/Nonpermanent/Validated by authorized signature and date. Media Type: Hard Copy Filing Order: Chronological Inclusive Dates: 2007 to Present Location: CCP Records - SWB and/or WRA	Disposition Authority Pending NARA Approval.	UNSCHEDULED -Do Not Destroy-	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.
10f	<u>Interelement Interference Correction Factor (IECF) Determination Files</u> IECF determination files document that Inductively Coupled Plasma (ICP) wavelengths of the metal is used to determine the concentration of metals. Metals have several wavelengths and overlap/interfere with other metals; therefore a correction factor must be determined. May include Attachment 2, CCP Records Transmittal/Receiving Form(s). QA Record/Nonpermanent/Validated by authorized signature and date. Media Type: Hard Copy Filing Order: Chronological Inclusive Dates: 2007 to Present Location: CCP Records - SWB and/or WRA	Disposition Authority Pending NARA Approval.	UNSCHEDULED -Do Not Destroy-	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.

Waste Isolation Pilot Plant RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)	1. <input type="checkbox"/> DOE <input checked="" type="checkbox"/> Contractor	2. Page 42 of 76
------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------	------------------

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
10g	<p><u>Documented Linear Range (DLR) Determination Files</u> DLR Determination Files pertain to the concentration of the high calibration standard and are applicable only for a specific analyte, instrument, and set of operating conditions. A DLR may be used for up to six months after its determination date. May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>QA Record/Nonpermanent/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: Chronological Inclusive Dates: 2007 to Present Location: CCP Records - SWB and/or WRA</p>	Disposition Authority Pending NARA Approval.	UNSCHEDULED -Do Not Destroy-	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.

Waste Isolation Pilot Plant RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)	1. <input type="checkbox"/> DOE <input checked="" type="checkbox"/> Contractor	2. Page 43 of 76
------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------	------------------

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
10h	<p><u>Completed Chain-of-Custody Forms</u> Data packages consisting of documentation generated during transport and receipt of field samples, sample movement in the laboratory, preparation for analysis, laboratory analyses output, raw and processed data, analytical results, reanalysis, QC sample results and instrument calibration data, plus a summary of final results for each batch. Chain-of-Custody Forms which have been completed document all transfers of sample custody from collection to disposal. The form contains at a minimum, the sample numbers, the date and times of transfers, and the signatures of the relinquishing and accepting parties. May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>QA Record/Lifetime/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: Alpha-Numeric Inclusive Dates: 2007 to Present Location: CCP Records - SWB and/or WRA</p>	ENV 5.c.1	Destroy in 75 years.	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.

Waste Isolation Pilot Plant RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)	1. <input type="checkbox"/> DOE <input checked="" type="checkbox"/> Contractor	2. Page 44 of 76
------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------	------------------

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
10i	<p>Solid PDP Documentation Hazardous waste reports, hazardous substance reports, waste characterization reports, CERCLA/RCRA unit reports. Documentation pertaining to the CCP solid PDP is to demonstrate the capability of each participating measurement facility to meet the data quality objectives stated in DOE/CBFO-95-1077 Performance Program Plan for RCRA Constituent Analysis of Solidified Waste. The PDP is used by CBFO to assess and approve characterization services for TRU waste. This is an annual requirement. Procedure used is DOE/CBFO-95-1077. May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>QA Record/Nonpermanent/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: PDP Number and Process Inclusive Dates: 2004 to Present Location: CCP Records - SWB and/or WRA</p>	Disposition Authority Pending NARA Approval.	UNSCHEDULED -Do Not Destroy-	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.
11	<p>PRECISION and ACCURACY (P&A) DEMONSTRATION FILES P&A Demonstration Files pertain to the demonstration of the method performance before analyzing any samples. May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>QA Record/Nonpermanent/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: Chronological Inclusive Dates: 2004 to Present Location: CCP Records - SWB and/or WRA</p>	Disposition Authority Pending NARA Approval.	UNSCHEDULED -Do Not Destroy-	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.

Waste Isolation Pilot Plant RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)	1. <input type="checkbox"/> DOE <input checked="" type="checkbox"/> Contractor	2. Page 45 of 76
------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------	------------------

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
12	<p><u>RT WINDOW DETERMINATION FILES</u> The RT window is crucial to the identification of target compounds. The window is determined by using +/- three times the standard deviation of the mean RT. May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>QA Record/Nonpermanent/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: Alpha-Numeric Inclusive Dates: 2007 to Present Location: CCP Records - SWB and/or WRA</p>	Disposition Authority Pending NARA Approval.	UNSCHEDULED -Do Not Destroy-	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.
13	<p><u>GAS GENERATION TESTING (GGT) DOCUMENTATION</u> Documentation on the GGT which is used to collect off-gases generated from a waste drum, and to analyze the Hydrogen/Methane (H₂/CH₄) generation rate and the total gas generation of the drum.</p>			

Waste Isolation Pilot Plant RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)	1. <input type="checkbox"/> DOE <input checked="" type="checkbox"/> Contractor	2. Page 46 of 76
------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------	------------------

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
13 a	<p>GGT BDRs Records indicating type (classification) and degree of contamination, date of disposal, method of disposal (burial, landfill, etc.), volume, and disposal location. Records may include engineering studies, reports of unusual problems encountered during removal or treatment. GGT BDRs are data compiled to generate characterization data and data reviews on the GGT process of collecting off-gases generated from the waste drums being processed through the characterization process. Includes Cover Sheet, Table of Contents, Case Narrative, Continuing Calibration Verification (CCV) Report, Sample Duplicate Report, Blank Report, Drum Data Sheets, Gas Generation Testing Program (GGTP), ITR Form, Raw Data, GGTP Drum Selection and Batching, GGTP Isolation Checklist, Copy of NCRs - if applicable, and the SPM Checklist Form. May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>QA Record/Lifetime/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: Alpha-Numeric Inclusive Dates: 2005 to Present Location: CCP Records - SWB and/or WRA</p>	ENV 6.b	Permanent. Cutoff 5 years after disposal. Transfer to NARA 25 years after cutoff.	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.

Waste Isolation Pilot Plant RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)	1. <input type="checkbox"/> DOE <input checked="" type="checkbox"/> Contractor	2. Page 47 of 76
------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------	-------------------------

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
13b	<p><u>GGT Hydrogen ICAL</u> GGT ICAL is documentation of analysis of analytical standards for series of different specified concentrations; used to define the linearity and dynamic range of the response of the mass spectrometer or electron capture detector to the target compounds. Includes but not limited to the following: Raw Data printouts and Calibration Report. May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>QA Record/Nonpermanent/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: Alpha-Numeric Inclusive Dates: 2005 to Present Location: CCP Records - SWB and/or WRA</p>	Disposition Authority Pending NARA Approval.	UNSCHEDULED -Do Not Destroy-	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.
13c	<p><u>GGT MDL Documentation</u> GGT MDL is documentation that pertains and is defined as the minimum concentration of a substance that can be measured and reported with 99% confidence that the value is above zero. Includes but is not limited to the following: Raw Data print outs and Determination of MDLs, Corresponding %R and %RSD form Attachment 1. May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>QA Record/Nonpermanent/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: Alpha-Numeric Inclusive Dates: 2005 to Present Location: CCP Records - SWB and/or WRA</p>	Disposition Authority Pending NARA Approval.	UNSCHEDULED -Do Not Destroy-	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.

Waste Isolation Pilot Plant RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)	1. <input type="checkbox"/> DOE <input checked="" type="checkbox"/> Contractor	2. Page 48 of 76
------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------	------------------

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
13d	<p>GGT CCP Unified Flammable Gas Test Procedure (UFGTP) Reports GGT CCP UFGTP Report pertains to whether a test category payload container demonstrates compliance with the FG/VOC limits. The long-term objective of the UFGTP is to improve waste shipability for specific populations of waste arriving at more realistic gas generation rates based on the results of measurement and testing. Includes the following: Cover page, Long-Term Objective Population Identification Report or equivalent, Long-Term Objective Subpopulation Selection Report or equivalent, Long-Term Objective Subpopulation Data Compilation Report or equivalent, Long-Term Objective Subpopulation Data Evaluation Report or equivalent, and Long-term Objective Summary Report. May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>QA Record/Lifetime/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: Alpha-Numeric Inclusive Dates: 2005 to Present Location: CCP Records - SWB and/or WRA</p>	Disposition Authority Pending NARA Approval.	UNSCHEDULED -Do Not Destroy-	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.
14	<p>VE BDRs VE constitutes opening a container and physically examining its contents and verifying its physical form. VE is also used to confirm that the physical form of the waste matches its waste stream description. Removal of prohibited items can be performed in this process.</p>			

Waste Isolation Pilot Plant RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)	1. <input type="checkbox"/> DOE <input checked="" type="checkbox"/> Contractor	2. Page 49 of 76
------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------	------------------

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
14a	<p>CCP CH VE BDRs Records indicating type (classification) and degree of contamination, date of disposal, method of disposal (burial, landfill, etc.), volume, and disposal location. Records may include engineering studies, reports of unusual problems encountered during removal or treatment. CCP CH VE BDRs is documentation regarding the process of opening a container and physically examining its contents and verifying its physical form. VE is also used to confirm that the physical form of the waste matches its waste stream description. Removal of prohibited items can be performed in this process. May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>QA Record/Lifetime/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: Alpha-Numeric Inclusive Dates: 2000 to Present Location: CCP Records - SWB and/or WRA</p>	ENV 6.b	Permanent. Cutoff 5 years after disposal. Transfer to NARA 25 years after cutoff.	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.

Waste Isolation Pilot Plant RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)	1. <input type="checkbox"/> DOE <input checked="" type="checkbox"/> Contractor	2. Page 50 of 76
------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------	-------------------------

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
14b	<p>Audio/Visual Recording Tapes or DVDs of VE Audio/Visual recordings created while performing VE of CH TRU waste containers. These Audio/Visual recordings are matched to an associated VE BDR. May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>QA Record/Nonpermanent/Validated by authorized signature and date on associated BDR.</p> <p>Media Type: Audio/Visual Tapes and DVDs Filing Order: Alpha-Numeric Inclusive Dates: 2000 to Present Location: CCP Records - SWB and/or WRA</p>	Disposition Authority Pending NARA Approval.	UNSCHEDULED -Do Not Destroy-	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.
14c	<p>Prohibited Items Removal Checklist Prohibited Items Removal Checklist is a form utilized to document the removal of prohibited items found in characterization drums. May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>QA Record/Nonpermanent/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: Date Inclusive Dates: 2003 to Present Location: CCP Records - SWB and/or WRA</p>	Disposition Authority Pending NARA Approval.	UNSCHEDULED -Do Not Destroy-	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.

Waste Isolation Pilot Plant RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)	1. <input type="checkbox"/> DOE <input checked="" type="checkbox"/> Contractor	2. Page 51 of 76
------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------	-------------------------

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
14d	<p>Remediation Data Forms Remediation Data Forms used during the CCP Standardized Prohibited Item Remediation process performed in CCP-TP-036. This is a VE activity. May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>QA Record/Nonpermanent/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: Alpha-Numeric Inclusive Dates: 2005 to Present Location: CCP Records - SWB and/or WRA</p>	Disposition Authority Pending NARA Approval.	UNSCHEDULED -Do Not Destroy-	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.

Waste Isolation Pilot Plant RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)	1. <input type="checkbox"/> DOE <input checked="" type="checkbox"/> Contractor	2. Page 52 of 76
------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------	------------------

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
14e	<p><u>CCP CH VE Quarterly Reports</u> Environmental monitoring reports provided to identify the progress on the environmental monitoring plans or on other related subjects. VE quarterly reports pertain to the quarterly review performed on randomly selected data completed through SPM review, within the last 3 months. The reports give information regarding the repeat of data generation level review, V&V performed on a minimum of one randomly chosen waste container each quarter. The SPM uses this information to document that the data generation level data review is being performed according to procedures. This includes the request and results correspondence. May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>QA Record/Lifetime/Validated by authorized signature and date on memorandum.</p> <p>Media Type: Hard Copy Filing Order: Chronological and Quarter Inclusive Dates: 2001 to Present Location: CCP Records - SWB and/or WRA</p>	ENV 1.d(8)(a)	Destroy when 75 years old. Cutoff when reports are superseded, obsolete, or canceled.	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.
15	<p><u>CCP ACCEPTABLE KNOWLEDGE (AK) DOCUMENTATION</u> AK documentation supports the knowledge used for waste characterization, which is based on the materials and processes used to generate waste. AK includes information about the physical form of the waste, the base materials composing the waste (especially hazardous and radioactive materials) and the process that generated the waste. AK is used to define waste streams, assign summary categories, assign United States Environmental Protection Agency (EPA) hazardous waste numbers, estimate the weight fraction of cellulose, plastic, and rubber (CPR), and estimated isotopic ratios.</p>			

Waste Isolation Pilot Plant RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)	1. <input type="checkbox"/> DOE <input checked="" type="checkbox"/> Contractor	2. Page 53 of 76
------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------	------------------

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
15a	<p><u>CCP CH AK Documentation</u> Records indicating type (classification) and degree of contamination, date of disposal method of disposal (burial, landfill, etc.), volume, and disposal location. Records may include engineering studies, reports of unusual problems encountered during removal or treatment. AK documentation is compiled, reviewed, evaluated, confirmed and reported. It supports the related AK Summary Report. The following documentation may include but is not limited to: AK Documentation Checklist; Record of Communication; AK Source Document Summary - Attachments 3- may included attached CCP generated source documents - prior to 11/01/2010 the Attachment 3's included as attachment both the site generated and CCP generated source documents; AK Source Document Reference List; Hazardous Constituents Waste Form(s); Waste Form, Waste Material Parameters, Prohibited Items and Packaging Forms with Waste Material Parameter Evaluation Memorandum; Radionuclides Forms - may include Nondestructive Assay (NDA) Memorandum; Waste Containers List - may have additional Memorandums as addendums to the Attachment 8; Acceptable Knowledge Re-evaluation Checklist; AK Source Document Discrepancy Resolution - includes AK Source Document Source Summary Forms as attachments; CCP Waste Stream Characterization Checklist; CCP TRU Waste Correlation and Surrogate Summary Form; AK Sufficiency Determination Request - memorandum and SPM notifications (emails, letters, memorandums, etc.), as applicable. May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>QA Record/Lifetime/Validated by authorized signature/initial and date.</p>	ENV 6.b	Permanent. Cutoff 5 years after disposal. Transfer to NARA 25 years after cutoff.	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.

Waste Isolation Pilot Plant RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)	1. <input type="checkbox"/> DOE <input checked="" type="checkbox"/> Contractor	2. Page 54 of 76
------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------	-------------------------

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
	Media Type: Hard Copy Filing Order: Site and AK Report or AK Library and/or Waste Stream Inclusive Dates: 2006 to Present Location: CCP Records - SWB and/or WRA			
15b	<p><u>AK Historical Source Documents</u> Records indicating type (classification) and degree of contamination, date of disposal method of disposal (burial, landfill, etc.), volume, and disposal location. Records may include engineering studies, reports of unusual problems encountered during removal or treatment. AK historical source documents are external records that have been generated by the waste generating sites. Copies are collected and submitted to support the listing of AK source documents referenced in the correlating AK Summary Report. They may be categorized as follows: Correspondence; Documents; Miscellaneous; Procedures and Published Documents; Discrepancy Resolution; and Unpublished Documents. These records must be maintained in parallel to the correlating AK Document Summaries and CCP source documents.</p> <p>Media Type: Electronic - PDF files, databases, video Filing Order: Site, AK Report or AK Library Inclusive Dates: November 2010 to Present Location: CCP Records - SWB and/or WRA</p>	ENV 6.b	Permanent. Cutoff 5 years after disposal. Transfer to NARA 25 years after cutoff.	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer with related AK Record Set. Transfer to the WRA within one year for storage and retention.

Waste Isolation Pilot Plant RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)	1. <input type="checkbox"/> DOE <input checked="" type="checkbox"/> Contractor	2. Page 55 of 76
------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------	-------------------------

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
15c	<p><u>Reconciliation with Data Objective Reports</u> Records indicating type (classification) and degree of contamination, date of disposal method of disposal (burial, landfill, etc.), volume, and disposal location. Records may include engineering studies, reports of unusual problems encountered during removal or treatment. Reconciliation with Data Objective Reports includes the Data Reconciliation and Reporting Routing Sheet, Reconciliation with Data Objective, WIPP Waste Stream Profile, and Characterization Information Summary. May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>QA Record/Lifetime/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: Site, AK Report and Waste Stream Inclusive Dates: 2001 to Present Location: CCP Records - SWB and/or WRA</p>	ENV 6.b.	Permanent. Cutoff 5 years after disposal. Transfer to NARA 25 years after cutoff.	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.

Waste Isolation Pilot Plant RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)	1. <input type="checkbox"/> DOE <input checked="" type="checkbox"/> Contractor	2. Page 56 of 76
------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------	------------------

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
15d	<p><u>HSG Summary Data Report</u> Records indicating type (classification) and degree of contamination, date of disposal method of disposal (burial, landfill, etc.), volume, and disposal location. Records may include engineering studies, reports of unusual problems encountered during removal or treatment. HSG Summary Data Report includes the Correlation of Container ID Numbers to HSG Sample ID Number Form, UCL₉₀ Evaluation Form, Data Evaluation Narrative, Waste Stream Lot TIC and SPM Narrative. It may also include the Radiography/VE Comparison Report (with copy of trending chart) and Miscertification Rate Calculations.</p> <p>QA Record/Lifetime/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: Site AK Report and Waste Stream Inclusive Dates: 2001 to Present Location: CCP Records - SWB and/or WRA</p>	ENV 6.b	Permanent. Cutoff 5 years after disposal. Transfer to NARA 25 years after cutoff.	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.

Waste Isolation Pilot Plant RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)	1. <input type="checkbox"/> DOE <input checked="" type="checkbox"/> Contractor	2. Page 57 of 76
------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------	-------------------------

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
15e	<p><u>Solids Summary Data Reports</u> Records indicating type (classification) and degree of contamination, date of disposal method of disposal (burial, landfill, etc.), volume, and disposal location. Records may include engineering studies, reports of unusual problems encountered during removal or treatment. Solids Summary Data Report include but are not limited to the Inter-Office Correspondence, Correlation of Container ID Numbers to Solid Sample ID Numbers, CCP Totals analysis VOC UCL₉₀ Evaluation Form, CCP Totals Analysis SVOC, UCL₉₀ Evaluation Form, CCP Totals Analysis Metals UCL₉₀ Evaluation Form, CCP Data Evaluation Narrative (VOC), CCP Data Evaluation Narrative (SVOC), CCP Data Evaluation Narrative (Metals), Waste Stream Lot TIC and SPM Evaluation Narrative.</p> <p>QA Record/Lifetime/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: Site and Waste Stream Inclusive Dates: 2004 to Present Location: CCP Records - SWB and/or WRA</p>	ENV 6.b	Permanent. Cutoff 5 years after disposal. Transfer to NARA 25 years after cutoff.	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.

Waste Isolation Pilot Plant RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)	1. <input type="checkbox"/> DOE <input checked="" type="checkbox"/> Contractor	2. Page 58 of 76
------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------	------------------

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
15f	<p><u>Miscertification Rate Calculations</u> Records indicating type (classification) and degree of contamination, date of disposal method of disposal (burial, landfill, etc.), volume, and disposal location. Records may include engineering studies, reports of unusual problems encountered during removal or treatment. Miscertification Rate Calculations documentation pertains to data from the VE that is used to determine the percentage of miscertified waste containers from radiographic examination. The miscertification rate is used to calculate the number of waste containers that shall be visually examined. The site-specific miscertification rate is applied to each Summary Category Group. The site-specific miscertification rate is reassessed annually. This is no longer performed in the program since the permit change of November 16, 2006.</p> <p>QA Record/Lifetime/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: Site and Waste Stream Inclusive Dates: 2001 to 2006 Location: CCP Records - SWB and/or WRA</p>	ENV 6.b	Permanent. Cutoff 5 years after disposal. Transfer to NARA 25 years after cutoff.	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.

Waste Isolation Pilot Plant RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)	1. <input type="checkbox"/> DOE <input checked="" type="checkbox"/> Contractor	2. Page 59 of 76
------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------	-------------------------

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
15g	<p><u>VE Random Selections</u> Records indicating type (classification) and degree of contamination, date of disposal method of disposal (burial, landfill, etc.), volume, and disposal location. Records may include engineering studies, reports of unusual problems encountered during removal or treatment. VE random selection documentation pertains to a statistically selected portion of the certified waste containers that will be opened and visually examined as a QC check on the radiographic examination of waste containers. Data obtained from VE is used to verify the matrix parameter category, waste material parameter weights, and absence of prohibited items determined by radiography. Random selection is reassessed annually. This is no longer performed in the program since the permit change of November 16, 2006.</p> <p>QA Record/Lifetime/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: Site and Waste Stream Inclusive Dates: 2001 to 2006 Location: CCP Records - SWB and/or WRA</p>	ENV 6.b	Permanent. Cutoff 5 years after disposal. Transfer to NARA 25 years after cutoff.	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.

Waste Isolation Pilot Plant RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)	1. <input type="checkbox"/> DOE <input checked="" type="checkbox"/> Contractor	2. Page 60 of 76
------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------	-------------------------

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
15h	<p>AK Summary Reports Hazardous waste reports, hazardous substance reports, waste characterization reports, CERCLA/RCRA unit reports. AK Summary Reports are documentation which supports the knowledge used for waste characterization, which is based on the materials and processes used to generate a waste. AK reports include information about the physical form of the waste, the base materials composing the waste (especially hazardous and radioactive materials) and the process that generated the waste. AK reports define waste streams, assign summary categories, assign EPA hazardous waste numbers, estimate the weight fraction of CPR, and estimated isotopic ratios. May include but is not limited to the following record: Final document; Documentation that demonstrates approval by designated individuals; Comments and comment resolution (attachments, Document Review Resolution (DRR), emails, letter, etc.); Document revision requests (i.e., initial markup) and DOE/CBFO submittal email within five days of project level review.</p> <p>QA Record/Lifetime/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: Site and Waste Stream Inclusive Dates: 2000 to Present Location: CCP Records - SWB and/or WRA</p>	ENV 1.d.10.a	Permanent. Cutoff when waste is disposed of. Transfer to NARA 25 years after cutoff.	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.

Waste Isolation Pilot Plant RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)	1. <input type="checkbox"/> DOE <input checked="" type="checkbox"/> Contractor	2. Page 61 of 76
------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------	-------------------------

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
15i	<p><u>AK Accuracy Report</u> Records indicating type (classification) and degree of contamination, date of disposal method of disposal (burial, landfill, etc.), volume, and disposal location. Records may include engineering studies, reports of unusual problems encountered during removal or treatment. AK Accuracy Reports document that the AK accuracy is evaluated either on a lot or waste stream basis. The report documents the results of the evaluation for containers in a waste stream. It may include but is not limited to Inter-Office Correspondence with attached CCP AK Accuracy Report and CCP Correlation of Container Identification Numbers to BDR Numbers. May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>QA Record/Lifetime/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: Site, AK Report and Waste Stream Inclusive Dates: 2000 to Present Location: CCP Records - SWB and/or WRA</p>	ENV 6.b	Permanent. Cutoff 5 years after disposal. Transfer to NARA 25 years after cutoff.	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.

Waste Isolation Pilot Plant RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)	1. <input type="checkbox"/> DOE <input checked="" type="checkbox"/> Contractor	2. Page 62 of 76
------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------	------------------

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
15j	<p><u>CCP CH AK Container Tracking Spreadsheet</u> Waste management system which tracks waste from creation through transportation, processing, storage; and reporting tracking records. AK Container Tracking Spreadsheet is a spreadsheet that identifies the following minimum criterion for each container listed in the waste stream: Container ID, Waste Stream ID, generation date, vent date, change reason, new closure date, new vent date, container type. May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>QA Record/Lifetime/Validated by authorized signature and date.</p> <p>Media Type: Electronic Filing Order: N/A Inclusive Dates: 2000 to Present Location: CCP Records - SWB and/or WRA</p>	ENV 1.g.(3)(a)	Delete or destroy when related records are destroyed, or 75 years from creation, whichever occurs later.	Print out after completion of waste stream shipment to WIPP. Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.
16	<p><u>WASTE DATA SYSTEM (WDS) FORMERLY WIPP WASTE INFORMATION SYSTEM (WWIS) DOCUMENTATION</u> The WDS is an on-line database system used to document information pertaining to waste, including but not limited to waste container characterization and certification data, produce reports, record shipment configuration details, disposal locations and disposal dates.</p>			

Waste Isolation Pilot Plant RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)	1. <input type="checkbox"/> DOE <input checked="" type="checkbox"/> Contractor	2. Page 63 of 76
------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------	------------------

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
16a	<p><u>CCP WDS Documentation</u> CCP WDS packages are created during the process of entering data into the WDS and reporting data on TRU waste. The WDS is a database system that requires input from waste generator sites for shipment of TRU waste payload containers and payload assemblies that are intended for disposal at WIPP. CCP represents the generator sites as the generator and provides input to WDS on behalf of generator sites. These CCP WDS packages contain, but are not limited to, spreadsheets, reports, and correspondence associated with data CCP submits to WDS electronically.</p> <p>QA Record/Lifetime/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: Site and Batch Number Inclusive Dates: 2001 to Present Location: CCP Records - SWB and/or WRA</p>	Disposition Authority Pending NARA Approval.	UNSCHEDULED -Do Not Destroy-	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.

Waste Isolation Pilot Plant RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)	1. <input type="checkbox"/> DOE <input checked="" type="checkbox"/> Contractor	2. Page 64 of 76
------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------	-------------------------

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
16b	<p>Overpack Loading Forms Documentation pertaining to 55 gallon drums that are overpacked in ten-drum overpack (TDOP)'s and standard waste boxes. Forms include information such as container ID's, surface dose rates, and filter information. Data from these forms is required for data input into WDS. The forms are the TDOP Loading form and the standard waste boxes Loading Form. May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>QA Record/Nonpermanent/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: Site and Batch Number Inclusive Dates: 2001 to Present Location: CCP Records - SWB and/or WRA</p>	Disposition Authority Pending NARA Approval.	UNSCHEDULED -Do Not Destroy-	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.
16c	<p>Radiological Surveys Radiological Surveys are performed to document levels of radiation, contamination conditions of the containers going through the characterization process for CCP CH. These are external records generated by the generator sites. May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>QA Record/Lifetime/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: Drum or Rad Survey Number Inclusive Dates: 2006 to Present Location: CCP Records - SWB and/or WRA</p>	Disposition Authority Pending NARA Approval.	UNSCHEDULED -Do Not Destroy-	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.

Waste Isolation Pilot Plant RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)	1. <input type="checkbox"/> DOE <input checked="" type="checkbox"/> Contractor	2. Page 65 of 76
------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------	-------------------------

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
17	<p><u>CCP TRANSPORTATION DOCUMENTATION</u> Transuranic shipment records includes records prepared by the waste generator and other related documentation. CCP transportation packages created during the preparation and transport of drums for burial at the WIPP. May include but not limited to: Payload Container Transportation Certification Document, Uniform Hazardous Waste Manifest, Public Burden Statement, Straight Bill of Lading - Short Form, Land Disposal Restriction Exemption Notification, Dunnage Certification Statement, Container Integrity Checklist, and Varian Porta-Test Leak Detector Calibration Record. May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>EPIDEMIOLOGICAL</p> <p>QA Record/Nonpermanent/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: Alpha-Numeric Inclusive Dates: 2001 to Present Location: CCP Records - SWB and/or WRA</p>	ENV 2.d.(4)	Destroy after 5 years.	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.

Waste Isolation Pilot Plant RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)	1. <input type="checkbox"/> DOE <input checked="" type="checkbox"/> Contractor	2. Page 66 of 76
------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------	------------------

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
18	<p><u>CCP PROCEDURES, PLANS and REPORTS</u> CCP Procedures, plans, and reports document record packages may include but is not limited to the following record: Final document; Documentation that demonstrates approval by designated individuals; Comments and comment resolution (attachments, DRR, emails, letter, etc.); Document revision requests (i.e., initial markup) and DOE/CBFO submittal email within five days of project level review. This line item is separate from AK Summary Reports.</p> <p>QA Record/Nonpermanent/Validated by authorized signature and date for hard copy file and login and password of authorized personnel.</p> <p>Media Type: Hard Copy/Electronic Filing Order: Alpha-Numeric Inclusive Dates: 2000 to Present Location: CCP Records - SWB and/or WRA</p>	Disposition Authority Pending NARA Approval.	UNSCHEDULED -Do Not Destroy-	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.
19	<p><u>CONFIGURATION MANAGEMENT DOCUMENTATION for EQUIPMENT</u> Configuration management documentation for equipment pertains to the control and oversight of all CCP Mobile Characterization Equipment (MCE) and transportation equipment.</p>			

Waste Isolation Pilot Plant RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)	1. <input type="checkbox"/> DOE <input checked="" type="checkbox"/> Contractor	2. Page 67 of 76
------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------	-------------------------

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
19a	<p><u>Measuring and Test Equipment (M&TE) Documentation</u> M&TE pertains to documents that ensures equipment used for inspection and testing are properly controlled, calibrated, and maintained. This includes but is not limited to the following: Notice of Deficiency, Manufacturer's Certificate of Calibrations, Calibration Interval Documentation, Exemptions and Temporary Extensions and Evaluations/Impact Studies using Out-of-Tolerance Evaluations, as applicable. May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>QA Record/Nonpermanent/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: Equipment and Date Inclusive Dates: 2000 to Present Location: CCP Records - SWB and/or WRA</p>	Disposition Authority Pending NARA Approval.	UNSCHEDULED -Do Not Destroy-	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.

**Waste Isolation Pilot Plant
RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)**

1.

 DOE Contractor

2. Page 68 of 76

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
19b	<p><u>EPA Tier 1 and Tier 2 Documentation</u> Tier 1 and Tier 2 documentation pertains to the characterization change authorization of the EPA approved waste characterization processes for NDA and VE. Tier changes are documented by memorandum which is the notification of the required change to the waste characterization process. May include various documents. May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>QA Record/Nonpermanent/Validated by appropriate authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: Chronological Inclusive Dates: 2006 to Present Location: CCP Records - SWB and/or WRA</p>	Disposition Authority Pending NARA Approval.	UNSCHEDULED -Do Not Destroy-	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.

**Waste Isolation Pilot Plant
RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)**

1.
 DOE
 Contractor

2. Page 69 of 76

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
19c	<p><u>Radioactive Sources Certificates of Compliance</u> Radioactive Material Packing and Shipping Records include the Certificates of Compliance. Certificates of Compliance for radioactive sources used to calibrate the NDA systems or when performing a function where a source is required to be used in the process. May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>EPIDEMIOLOGICAL</p> <p>QA Record/Nonpermanent/Validated by Manufacturer's signature and date.</p> <p>Media Type: Hard Copy Filing Order: Equipment and Date Inclusive Dates: 2001 to Present Location: CCP Records - SWB and/or WRA</p>	ADM 18.48	Destroy 5 years after Certificate of Compliance has terminated, unless information is received indicating that renewed use is definitely anticipated.	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.
20	<p><u>CCP CH PROCUREMENT RECORDS</u> Procurement records generated in the acquisition of goods and non-personnel services.</p>			

Waste Isolation Pilot Plant RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)	1. <input type="checkbox"/> DOE <input checked="" type="checkbox"/> Contractor	2. Page 70 of 76
------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------	-------------------------

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
20 a	<p><u>CCP CH Procurement Documentation</u> CCP procurement records that were generated in the acquisition of goods and non-personnel services for CH generator sites. Includes but not limited to the following: Purchase Requisitions/Change Notices; Purchase Orders/Change Notices; Statements of Work; Specifications/Drawings; Qualified Suppliers List (QSL) and attachments; Approval/Variation Requests, and copies of the QA Grading Level Determination Checklist. This is for Quality Level 1 and 2 procurement only. This is held by NWP until completion.</p> <p>QA Record/Nonpermanent/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: Purchase Order Number Inclusive Dates: 2000 to Present Location: CCP Records - SWB and/or WRA and NWP Procurement</p>	Disposition Authority Pending NARA Approval.	UNSCHEDULED -Do Not Destroy-	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.

Waste Isolation Pilot Plant RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)	1. <input type="checkbox"/> DOE <input checked="" type="checkbox"/> Contractor	2. Page 71 of 76
------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------	-------------------------

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
20b	<p><u>CCP CH Receipt Inspection Verification Sheets (RIVS)</u> RIVS and supporting documentation (certificates of analysis/conformance/compliance, calibration certificates, etc.) pertaining to quality source and receipt activities in support of the CCP CH's waste characterization mission. This was named Source Receipt Inspection Verification Sheets (SRIVS) but is now called as titled above (RIVS). May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>QA Record/Nonpermanent/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: Alpha-Numeric - Purchase Order Inclusive Dates: 2002 to Present Location: CCP Records - SWB and/or WRA</p>	Disposition Authority Pending NARA Approval.	UNSCHEDULED -Do Not Destroy-	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.

Waste Isolation Pilot Plant RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)	1. <input type="checkbox"/> DOE <input checked="" type="checkbox"/> Contractor	2. Page 72 of 76
------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------	-------------------------

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
21	<p>STANDING ORDERS Documentation that is a means for management to communicate short-term direction to operators and the documented quarterly review of standing orders. Information such as special operations, data collection, plotting process parameters and other similar short-term matters may be included in standing orders. Standing orders are not used to deviate from procedures but supplement procedures until the procedure can be revised. Includes Standing Order Log. May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>QA Record/Nonpermanent/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: Alpha-Numeric Inclusive Dates: 2000 to Present Location: CCP Records - SWB and/or WRA</p>	Disposition Authority Pending NARA Approval.	UNSCHEDULED -Do Not Destroy-	Retain in office until completion of characterization process for each site. Transmit to CCP Records to be maintained until no longer needed to support audits. Transfer to the WRA within one year for storage and retention.

Waste Isolation Pilot Plant RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)	1. <input type="checkbox"/> DOE <input checked="" type="checkbox"/> Contractor	2. Page 73 of 76
------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------	------------------

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
22	<p>OPERATOR AIDS Documentation that is used to provide information useful to operators in performing their duties and the semi-annual review of operator aids are still necessary and current. Operator aids may be in many forms such as the latest revision pages out of procedures, handwritten notes, and information tags. Operator aids are viewed as a convenience to the operator, not administrative/technical requirements and or direction. Operator aids that are assigned unique numbers may supplement approved procedures, but shall not be used in lieu of approved procedures. May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>QA Record/Nonpermanent/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: Alpha-Numeric Inclusive Dates: 2000 to Present Location: CCP Records - SWB and/or WRA</p>	Disposition Authority Pending NARA Approval.	UNSCHEDULED -Do Not Destroy-	Retain in office until completion of characterization process for each site. Transmit to CCP Records to be maintained until no longer needed to support audits. Transfer to the WRA within one year for storage and retention.
23	<p>CONTAINER MANAGEMENT DOCUMENTATION Container management documentation pertains to the CCP management control and tracking of TRU waste containers during the characterization process.</p>			

Waste Isolation Pilot Plant RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)	1. <input type="checkbox"/> DOE <input checked="" type="checkbox"/> Contractor	2. Page 74 of 76
------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------	-------------------------

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
23a	<p>CCP Daily Container Management Forms Documentation which helps in the CCP management, control and tracking of TRU waste containers during the characterization process. Daily Container Management Forms pertain to the inspection of a TRU waste container to determine if the drum can be safely handled and whether repackaging will be required prior to CCP waste characterization or shipment. These forms may have different titles such as Container Inspection Reports, Container Integrity Reports and Daily Production Reports. May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>QA Record/Nonpermanent/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: Chronologically Inclusive Dates: 2000 to Present Location: CCP Records - SWB and/or WRA</p>	Disposition Authority Pending NARA Approval.	UNSCHEDULED -Do Not Destroy-	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.
23b	<p>CCP Scale Calibration Check and Container Weight Information Documentation used to perform a check on the scale used during handling of the drum to acquire the weight of each drum to be processed through the characterization process. Also captures the drums weight and who performed the task. May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>QA Record/Nonpermanent/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: Chronologically Inclusive Dates: 2001 to Present Location: CCP Records - SWB and/or WRA</p>	Disposition Authority Pending NARA Approval.	UNSCHEDULED -Do Not Destroy-	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.

Waste Isolation Pilot Plant RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)	1. <input type="checkbox"/> DOE <input checked="" type="checkbox"/> Contractor	2. Page 75 of 76
------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------	------------------

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
23c	<p>CCP Container Travelers Supporting documentation includes but is not limited to miscellaneous worksheets, recorder sheets, other data sheets, and correspondence from where applicable information has been transcribed or summarized in other documentation. CCP Container Travelers are a form that shows the management, control and tracking of waste containers during the characterization process. Form shows the container ID number, waste stream, weight, external temperature and the initials and dates of various NDE, NDA, HSG, VE and GGT personnel. May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>EPIDEMIOLOGICAL</p> <p>QA Record/Nonpermanent/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: Alpha-Numeric Inclusive Dates: 2004 to Present Location: CCP Records - SWB and/or WRA</p>	ENV 6.c	Destroy when 1 year old.	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.

Waste Isolation Pilot Plant RECORDS INVENTORY AND DISPOSITION SCHEDULE (RIDS)	1. <input type="checkbox"/> DOE <input checked="" type="checkbox"/> Contractor	2. Page 76 of 76
------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------	-------------------------

6. Item No.	7. Filing Series Title, Description, Any Special Categories, Media Types, Filing Order, Inclusive Dates and Location:	8. Disposition Authority	9. Authorized Disposition Instructions	10. Transfer Instructions
24	<p><u>WEEKLY CONDUCT of OPERATIONS - WALK-DOWN CHECKLIST</u> Records which notify or support worker protection and safety. Weekly Conduct of Operations - Walk-Down Checklists are performed on a weekly basis to provide a walk-down of the equipment and area around the equipment. Documents general safety, housekeeping, procedures, radiological controls, basic and conduct of operations. This is done for all characterization equipment at the Idaho National Laboratory (INL) Site. May include Attachment 2, CCP Records Transmittal/Receiving Form(s).</p> <p>EPIDEMIOLOGICAL</p> <p>QA Record/Nonpermanent/Validated by authorized signature and date.</p> <p>Media Type: Hard Copy Filing Order: Chronological Inclusive Dates: February 2008 to Present Location: CCP Records - SWB and/or WRA</p>	ENV 1.b.(5)(a)	Destroy after 5 years.	Retain in CCP Records until completion of characterization process for each site or when no longer needed in project files to support daily functions or audits. Transfer to the WRA within one year for storage and retention.

GEN4

COPY

GEN4

National TRU Program Certification
Effective Date: 10/07/2013

SPM-01, Rev. 17
Page 1 of 5

**Contact Handled (CH)
Site Project Manager (SPM)
Qualification Card**

Name: Daniel Wade

Education/Experience

Resume documenting education and experience on file with National TRU Program Certification (NTPC) Training.

Cheryl Ramirez
NTPC Training

10-23-13
Date

Job Specific Training

Qualification Limit

There is no qualification limit for this position. This qualification is a one-time-only requirement. Upon completion of this core qualification card, the Trainee is qualified to perform Site Project Manager (SPM) duties for Contact Handled (CH) Waste.

Unsatisfactory performance will result in disqualification. If unsatisfactory performance is determined, the complete qualification card, including the On-the-Job Training (OJT) portions, must be completed to re-establish qualification.

Requalification Requirements

Not required. See above statement.

Indoctrination

Initial/Indoctrination Reading:

1. WP 15-GM1002, *Issues Management Processing of WIPP Forms*
2. CCP-CM-001, *CCP Equipment Change Authorization and Documentation*
3. CCP-HSP-014, *Health and Safety Program Implementation for CCP*
4. CCP-PO-001, *CCP Transuranic Waste Characterization Quality Assurance Project Plan*
5. CCP-PO-002, *CCP Transuranic Waste Certification Plan*
6. CCP-PO-003, *CCP Transuranic Authorized Methods for Payload Control (CCP CH-TRAMPAC)*
7. CCP-PO-050, *CCP TRUPACT-III TRU Waste Authorized Methods for Payload Control (CCP TRUPACT-III TRAMPAC)*
8. CCP-QP-002, *CCP Training and Qualification Plan*
9. CCP-QP-005, *CCP TRU Nonconforming Item Reporting and Control*
10. CCP-QP-008, *CCP Records Management*
11. CCP-QP-010, *CCP Document Preparation, Approval, and Control*
12. CCP-QP-015, *CCP Procurement*
13. CCP-QP-016, *CCP Control of Measuring and Testing Equipment*
14. CCP-QP-018, *CCP Management Assessment*
15. CCP-QP-022, *CCP Software Quality Assurance Plan*
16. CCP-QP-023, *CCP Handling, Storage, and Shipping*
17. CCP-QP-027, *CCP Test Control*
18. CCP-QP-028, *CCP Records Filing, Inventorying, Scheduling, and Dispositioning*
19. CCP-TP-001, *CCP Project Level Data Validation and Verification*
20. CCP-TP-002, *CCP Reconciliation of DQOs and Reporting Characterization Data*
21. CCP-TP-005, *CCP Acceptable Knowledge Documentation*
22. CCP-TP-028, *CCP Radiographic Test Drum and Training Container Construction*
23. CCP-TP-030, *CCP CH TRU Waste Certification and WWIS/WDS Data Entry*

**Contact Handled (CH)
 Site Project Manager (SPM)
 Qualification Card**

Name: Daniel Wade

- 24. CCP-TP-053, *CCP Standard Real-Time Radiography (RTR) Inspection Procedure*
- 25. CCP-TP-058, *CCP NDA Performance Demonstration Program*
- 26. CCP-TP-113, *CCP Standard Contact-Handled Waste Visual Examination*

I have read the listed Initial/Indoctrination Reading and understand my responsibilities as applicable to the procedures above.

Daniel Wade 10/21/13
 Trainee Date

Additional Training Requirements

CCP-PO-001	1. WAP/QAPjP Briefing and Test	<i>Michelle Billett</i> 10/21/13 NTPC Training Date
Haz-Waste-101	2. Hazardous Waste Identification (Self-Paced Module)	<i>Cheryl Armitage</i> 10-21-13 NTPC Training Date
CCP-VE-101	3. Visual Examination (VE) TRU Waste Characterization Briefing	<i>Cheryl Armitage</i> 10-09-13 NTPC Training Date
CCP-RTR-101	4. Real-Time Radiography (RTR) TRU Waste Characterization Briefing	<i>Cheryl Armitage</i> 10-09-13 NTPC Training Date

Formal Training	OJT Knowledge Requirements	Subject Matter Expert (SME)/OJT Signature/Date
CCP-PO-001	1. State the regulator who governs hazardous waste.	<i>[Signature]</i> 10/19/13
	2. Define the term "prohibited item" and give five examples of prohibited items.	<i>[Signature]</i> 10/19/13
	3. Identify the document allowing Waste Isolation Pilot Plant (WIPP) to receive and store TRU-mixed waste.	<i>[Signature]</i> 10/19/13
	4. Identify and describe the three major methods used to characterize TRU waste.	<i>[Signature]</i> 10/19/13
	5. State the Data Quality Objectives (DQOs) for VE RTR.	<i>[Signature]</i> 10/19/13
	6. Name at least 2 DQOs for Acceptable Knowledge (AK).	<i>[Signature]</i> 10/19/13
	7. State the five (5) Quality Assurance Objectives (QAOS).	<i>[Signature]</i> 10/19/13

**Contact Handled (CH)
 Site Project Manager (SPM)
 Qualification Card**

Name: Daniel Wade

CCP-PO-002	8. Define waste stream.	<i>[Signature]</i> 10/19/13
	9. Define waste matrix code.	<i>[Signature]</i> 10/19/13
	10. Describe the three (3) summary category groups.	<i>[Signature]</i> 10/19/13
	11. Define TRU waste.	<i>Daniel Wade</i> 9 Oct 13
	12. Define TRU-mixed waste.	<i>Daniel Wade</i> 9 Oct 13
	13. List the 10 radionuclides that must be reported.	<i>Daniel Wade</i> 9 Oct 13
	14. List the agency which governs radiological waste.	<i>Daniel Wade</i> 9 Oct 13
	15. State which document is the driver for non-destructive assay (NDA).	<i>Daniel Wade</i> 9 Oct 13
CCP-QP-005	16. State which type of radioactive waste is accepted at the WIPP (limited by The Land Withdrawal Act, as stated in the WIPP Waste Acceptance Criteria (WAC)).	<i>Daniel Wade</i> 9 Oct 13
	17. State one major purpose for the nonconformance control program.	<i>Mark Peacey</i> 10/22/2013
	18. Identify who can initiate a non-conformance report (NCR).	<i>Mark Peacey</i> 10/22/2013
	19. Explain the difference between a final disposition of 'Use As Is' and 'Rework.'	<i>Mark Peacey</i> 10/22/2013
WP 15-GM1002	20. Describe the process if an NCR generated at Project Level is determined to be "reportable."	<i>Mark Peacey</i> 10/22/2013
	21. Describe the purpose of the WIPP Form process.	<i>Mark Peacey</i> 10/22/2013
	22. State the person responsible for originating a WIPP Form.	<i>Mark Peacey</i> 10/22/2013
	23. Describe how WIPP Forms are documented.	<i>Mark Peacey</i> 10/24/2013
	24. Describe who has responsibility for processing WIPP Forms, approving Corrective Action Plans, and approving closure of WIPP Forms.	<i>Mark Peacey</i> 10/22/2013

**Contact Handled (CH)
 Site Project Manager (SPM)
 Qualification Card**

Name: Daniel Wade

CCP-TP-001	25. Describe actions personnel may take when conditions adverse to quality are discovered.	Mark Peacey 10/22/2013
	26. State which characterization data requires SPM review and validation and verification.	Mark Peacey 10/22/2013
	27. State the percentage of Batch Data Reports (BDRs) that must undergo SPM review.	Rhonda K. [Signature] 10/23/13
	28. Explain when it is allowed to review BDRs with containers not on the AK Tracking Spreadsheet.	Rhonda K. [Signature] 10/23/13
	29. State when an SPM must provide comments or justifications when completing an SPM checklist.	Rhonda K. [Signature] 10/23/13
	30. Explain the differences between "editorial" changes and "data affecting" changes.	Mark Peacey 10/22/2013
CCP-TP-002	31. State how the SPM documents the data generation level (DGL) data review, validation, and verification is being performed in accordance with applicable procedures.	Rhonda K. [Signature] 10/23/13
	32. Discuss the components of a Characterization Information Summary (CIS).	[Signature] 10-14-13
CCP-TP-005	33. Define the term "acceptable knowledge" and state one use/purpose for acceptable knowledge.	Rhonda K. [Signature] 10/23/13
	34. State where acceptable knowledge information is documented.	Rhonda K. [Signature] 10/23/13
	35. Discuss the AK sufficiency elements.	Rhonda K. [Signature] 10/23/13
	36. State the purpose of the NDA Memo and who assists in its generation.	Mark Peacey 10/22/2013
Formal Training	OJT Practical Requirements	SME/OJT Signature/Date
CCP-TP-001	1. Demonstrate proficiency in the review of RTR BDRs. ¹	LA-H2ATR-13 0107 Rhonda K. [Signature] 10/23/13
	2. Demonstrate proficiency in the review of NDA BDRs. ¹	5ALBC 1033 Rhonda K. [Signature] 10/23/13
	3. Demonstrate proficiency in the review of VE BDRs. ¹	IN-TRP-VE-002819 Rhonda K. [Signature] 10/23/13

¹ Proficiency will be demonstrated after the completion of BDR reviews in each discipline under the supervision of a qualified SPM/SME.

**Contact Handled (CH)
 Site Project Manager (SPM)
 Qualification Card**

Name: Daniel Wade

Approvals	
I have completed formal training and received OJT for this position. I fully understand my responsibilities as a CH SPM.	Daniel Wade <i>Daniel Wade</i> 10/23/13
	Trainee (printed name and signature) Date
I have monitored the training of this individual and believe they are ready to perform the duties of a CH SPM. (Validation by the SME/OJT instructor(s) involved in the training of this individual.)	<i>Daniel Moody</i> <i>Andrew Moody</i> 4 Oct 13 <i>Sim Verma</i> 10/19/13
	SME/OJT Instructor (printed name and signature) Date
	<i>Richard Kantowitz</i> <i>Mark Percy</i> 10/23/13 <i>Mark Percy</i> 10/22/2013
	SME/OJT Instructor (printed name and signature) Date
I approve this employee to perform the duties of a CH SPM.	<i>Mark Percy</i> <i>Mark Percy</i> 10/23/2013
	SPM (printed name and signature) Date

Approved for Content & Format: Richard Kantowitz (Approval on File) 10/07/2013
 SME/OJT Date

Approved for Content: Mark Percy (Approval on File) 10/07/2013
 SPM Date

Approved for Applicability,
 Content, Format, & Use: A.J. Fisher (Approval on File) 10/07/2013
 Manager Responsible for Training Date

COPY

Central Characterization Project
Effective Date: 02/23/2009

SPM-01, Rev. 12
Page 1 of 5

Site Project Manager (SPM) Qualification Card

Name: Beverly Schrock

Badge Number: [REDACTED]

Email Address: [REDACTED]

The requirements of this document are the result of an evaluation as described in CCP-QP-002, *CCP Training and Qualification Plan*.

Education / Experience

Trainee has been selected for this position based on their education, prior-experience, additional certifications, training, etc., as documented in the CCP training files.

Mark Pearcy Mark Pearcy 3/2/10
CCP Program Manager Date

Job Specific Training

Qualification Limit

There is no qualification limit for this position. This qualification is a one-time-only requirement. Upon completion of this core qualification card, the Trainee is qualified to perform SPM duties. Site specific qualification (i.e., BDR review) is valid for the site(s) with completed addenda.

Unsatisfactory performance will result in disqualification. If unsatisfactory performance is determined, the qualification card and OJT process must be completed to re-establish qualification.

Requalification Requirements

Not required. See above statement.

Indoctrination

WAP/QAPJP Briefing and Test

Alyca Atwood 3/8/10
CCP Training Date

Hazardous Waste Code Assignments Briefing and Test

Alyca Atwood 3/8/10
CCP Training Date

Solid and Soils Sampling and Analysis for Site Project Managers (SPM) Briefing

Michael Valentine 5/12/10
Site Project Manager Date

NCR / CAR Briefing
(Provided by CCP/QA Organization)

Christine Phomey 3/10/10
CCP/QA Organization Date

Statistical Sampling Briefing

Sharon Gattuso 3/22/10
Site Project Manager Date

Trainee started qualification prior to revision of checklist. Based on new process defined in CCP-QP-002 addendum are no longer applicable and the trainee is a qualified SPM. Mike Ramsey 2-5-2017

**Site Project Manager (SPM)
Qualification Card**

Name: Beverly Schrock

Badge Number: [REDACTED]

Email Address: [REDACTED]

Contact-Handled Waste VE and RTR Training

Larry Porter Larry Porter 5/7/10
Site Project Manager Date

Incompatibles Determination Training Module

Michael W. Lentz Michael W. Lentz 5/7/2010
Site Project Manager Date

Required Reading:

1. WP 08.NT.03, *Waste Stream Profile form*
2. CCP-CM-001, *CCP Equipment Change Authorization and Documentation*
3. CCP-PO-001, *CCP Transuranic Waste Characterization Quality Assurance Project Plan*
4. CCP-PO-002, *CCP Transuranic Waste Certification Plan*
5. CCP-PO-003, *CCP TRUPACT-II Authorized Methods for Payload Control (TRAMPAC)*
6. CCP-PO-005, *CCP Conduct of Operations*
7. CCP-PO-008, *CCP Quality Assurance Interface with the WTS Quality Assurance Program*
8. CCP-QP-002, *CCP Training and Qualification Plan*
9. CCP-QP-004, *CCP Corrective Action Management*
10. CCP-QP-005, *CCP TRU Nonconforming Item Reporting and Control*
11. CCP-QP-006, *CCP Corrective Action Reporting and Control*
12. CCP-QP-008, *CCP Records Management*
13. CCP-QP-010, *CCP Document Preparation, Approval and Control*
14. CCP-QP-011, *CCP Notebooks & Logbooks*
15. CCP-QP-015, *CCP Procurement*
16. CCP-QP-016, *CCP Control of Measuring, Testing, and Data Collection Equipment*
17. CCP-QP-018, *CCP Management Assessment*
18. CCP-QP-022, *CCP TRU Software Quality Assurance*
19. CCP-QP-023, *CCP Handling, Storage, and Shipping*
20. CCP-QP-027, *CCP Test Control*
21. CCP-QP-028, *CCP Records Filing, Inventory, Scheduling, and Dispositioning*
22. CCP-QP-030, *CCP Written Practice for the Qualification of CCP Helium Leak Detection*
23. CCP-TP-001, *CCP Project Level Data Validation and Verification*
24. CCP-TP-002, *CCP Reconciliation of DQOs and Reporting Characterization Data*
25. CCP-TP-003, *CCP Sampling Design and Data Analysis for RCRA Characterization*
26. CCP-TP-005, *CCP Acceptable Knowledge Documentation*
27. CCP-TP-028, *CCP Radiographic Test and Training Drum Requirements*
28. CCP-TP-030, *CCP TRU Waste Certification and WWIS Data Entry*
29. CCP-TP-056, *CCP HSG Performance Demonstration Plan*
30. CCP-TP-058, *CCP NDA Performance Demonstration Plan*
31. CCP-TP-160, *CCP Random Selection of Containers for Headspace Gas Sampling and Analysis*

Site Project Manager (SPM)
 Qualification Card

Name: Beverly Schrock

Badge Number: [REDACTED]

Email Address: [REDACTED]

I have read the listed required reading and understand my responsibilities as applicable to the procedures above.

Beverly S. Schrock
 Trainee Signature

5-7-10
 Date

CCP-PO-005 - Conduct of Operations
 Comprehensive Exam

Alyca Atwood
 CCP Training

8/8/10
 Date

Formal Training	On-the-job Training Knowledge Requirements	SME Signature / Date
CCP-PO-001	1. Define the term "prohibited item" and give two examples of prohibited items.	Larry Potts 5/7/10
	2. Identify the document that permits WIPP to receive and store hazardous mixed TRU waste.	Larry Potts 5/7/10
	3. Identify the four major methods used by CCP to characterize TRU waste and briefly describe each method.	Larry Potts 5/7/10
	4. State three (3) instances when an NCR is required for non-destructive examination (NDE).	Larry Potts 5/7/10
	5. State when an NCR is written for visual examination (VE).	Larry Potts 5/7/10
	6. State when an NCR is written for headspace gas (HSG).	[Signature] 6/21/10
	7. State the difference between a "Z" qualifier and a "J" qualifier.	Adela Martin 6/17/2010
	8. State when a "B" qualifier is used.	Adela Martin 6/17/2010
	9. Describe the definition of VE of record according to New Mexico Environment Department (NMED). Provide an example.	[Signature] 6/21/10
	10. State when a duplicate waste drum is run.	[Signature] 6/21/10

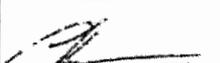
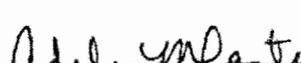
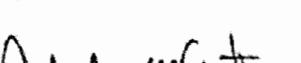
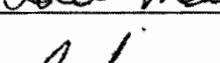
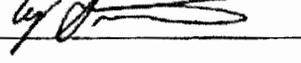
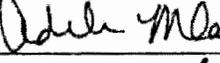
* Individual forgot to date
 was correctly at time of
 qualification. AM
 12/16/10

**Site Project Manager (SPM)
 Qualification Card**

Name: **Beverly Schrock**

Badge Number: XXXXXXXXXX

Email Address: XXXXXXXXXX

CCP-PO-002	11. State when an NCR is written for non-destructive assay (NDA).	 6/21/10
	12. State which document is the driver for NDA.	 6/21/10
	13. Describe the information to look for in an NDA control chart during V & V review of an NDA batch data report.	 6/21/10
CCP-QP-005	14. State one major purpose for the nonconformance control program.	 6/21/10
	15. Identify who can initiate a non-conformance report (NCR).	 6/21/10
CCP-TP-005	16. Define the term "acceptable knowledge" and state one use/purpose for acceptable knowledge.	 6/21/10
	17. State where acceptable knowledge information is documented.	 6/21/10
	18. Discuss the AK sufficiency elements.	 6/21/10
On-the-job Training Practical Requirements		SME Signature / Date
CCP-TP-001	1. Demonstrate proficiency in the review of headspace gas batch data (BDR) reports. ²	 6/17/2010
	2. Demonstrate proficiency in the review of non-destructive examination (NDE) BDRs. ²	 6/17/2010
	3. Demonstrate proficiency in the review of non-destructive assay (NDA) BDRs. ²	 6/22/2010
	4. Demonstrate proficiency in the review of visual examination (VE) BDRs. ²	 6/17/2010
CCP-TP-002	5. Complete a Characterization Information Summary (CIS).	 6/22/10

² Proficiency will be demonstrated after the completion of BDR reviews in each discipline under the supervision of a qualified SPM.

Site Project Manager (SPM)
Qualification Card

Name: Beverly Schrock	Badge Number: [REDACTED]
Email Address: [REDACTED]	

Approvals	
I have completed formal training and received on-the-job training for this position. I fully understand my responsibilities as an SPM.	<p><i>Beverly S. Schrock</i> <i>Beverly S. Schrock</i> ⁶⁻²³⁻¹⁰ <small>Trainee (printed name and signature) Date</small></p>
	<p>FGA, HSG, Totals (VOA, SVOC, Metals - detailed) RTR, VE. <i>Adela M. Cantu</i> <i>Adela M. Cantu</i> 6/17/2010 <small>SME/OJT Instructor (printed name and signature) Date</small></p>
Validation by the SME/OJT instructor(s) involved in the training of this individual.	<p><i>Craig Simmons</i> <i>Craig Simmons</i> 6/22/2010 <small>SME/OJT Instructor (printed name and signature) Date</small></p>
	<p><i>Richard Kestowitz</i> <i>Richard Kestowitz</i> 6/22/10 <small>CCP Site Project Manager (printed name and signature) Date</small></p>
I approve this employee to perform the duties of an SPM.	<p><i>Mark Pearcey</i> <i>Mark Pearcey</i> 6/23/10 <small>CCP Program Manager (printed name and signature) Date</small></p>
	<p><i>Ryan Martin</i> <i>Ryan Martin</i> 6/23/10 <small>CCP Training (printed name and signature) Date</small></p>

Approved for Format: Alyca Atwood (original signature on file) 02-23-09
CCP Training Date

Approved for Content: Craig Simmons (original signature on file) 02-23-09
CCP Site Project Manager Date

Approved for Use: R. A. Billett (original signature on file) 02-23-09
CCP Program Manager Date

DIVIDER

PAGE

GENS

CCP - Oak Ridge National Labs (ORNL)

GEN5

List of Qualified Individuals

7/24/2014 4:13 PM

	Name	Position	CCP Next Training Due Date	Host Site Next Training Due Date
VE	Cofer, Jason	Operator/ITR	04/2016	10/30/14
	Harley, Anthony	Operator/ITR SME/OJT Expert NCR "K" Code Designee	09/2015	09/19/14
	Matheny, Derek	Operator/ITR	04/2016	11/18/14
	Wallace, D. Chuck	Operator/ITR	04/2016	10/30/14

	Name	Position	CCP Next Training Due Date	Host Site Next Training Due Date
RTR	Brookshire, John	Operator/ITR NCR "K" Code Designee	Eye Exam - 01/2015 Requal - 01/2016 SNT-TC-1A - 09/05/16 Training Cont. - 01/2015	01/06/15
	Brothers, Daphne	Operator/ITR NCR "K" Code Designee	Eye Exam - 11/2014 Requal - 11/2015 SNT-TC-1A - 11/20/16 Training Cont. - 11/2014	09/26/14
	Lyles, Eric	Operator/ITR SME/OJT NCR "K" Code Designee	Eye Exam - 01/2015 Requal - 02/2016 SNT-TC-1A - 04/22/2016 Training Cont. - 01/2015	11/05/14
	Oney, Fred	Operator/ITR SME/OJT NCR "K" Code Designee	Eye Exam - 11/2014 Requal - 04/2016 SNT-TC-1A - 04/16/16 Training Cont. - 10/2014	09/18/14
	Redmond, R. Steve	Operator/ITR NCR "K" Code Designee	Eye Exam - 11/2014 Requal - 11/2015 SNT-TC-1A - 05/11/17 Training Cont. - 11/2014	01/29/15

	Name	Position	CCP Next Training Due Date	Host Site Next Training Due Date
NDA IQ3	Anderson, Susan	Operator/ITR NCR "K" Code Designee	11/2015	09/22/14
	Ceo, Robert	Expert Analyst	N/A	N/A
	Crosby, Dan	Operator/ITR	01/2016	10/01/14
	Gerlock, Chad	Operator/ITR NCR "K" Code Designee	11/2015	10/23/14
	Gillespie, Bruce	Expert Analyst	N/A	N/A
	Morales, Bart	Expert Analyst	N/A	N/A
	Meyer, Kevin	Expert Analyst	N/A	N/A
	Southworth, Tim	Expert Analyst	N/A	N/A
	Steade, Maria	Operator/ITR	01/2016	09/30/14
Whitson, Ron	Operator/ITR SME/OJT NCR "K" Code Designee	10/2015	11/14/14	

**CCP - Oak Ridge National Labs (ORNL)
List of Qualified Individuals
7/24/2014 4:13 PM**

	Name	Position	CCP Next Training Due Date	Host Site Next Training Due Date
MILCC	Anderson, Susan	Operator/ITR NCR "K" Code Designee	04/2016	09/22/14
	Ceo, Robert	Expert Analyst	N/A	N/A
	Crosby, Dan	Operator/ITR	06/2016	10/01/14
	Gerlock Chad	Operator/ITR NCR "K" Code Designee	04/2016	10/23/14
	Meyer, Kevin	Expert Analyst	N/A	N/A
	Steade, Maria	Operator/ITR	06/2016	09/30/14
	Whitson, Ron	Operator/ITR SME/OJT NCR "K" Code Designee	04/2016	11/14/14

	Name	Position	CCP Next Training Due Date	Host Site Next Training Due Date
FGA	Byrd, Carmel	Operator/ITR	01/2016	10/28/14
	Davis, James	Operator/ITR	12/2015	10/28/14
	Robinson, Jeremy	Operator/ITR SME/OJT	06/2016	10/02/14

**Table C6-2 Acceptable Knowledge (AK) Checklist
ORNL/CCP Recertification Audit A-14-29
July 29 – 30, 2014**

(This page intentionally blank)

Acceptable Knowledge (AK) Checklist¹

	WAP Requirement ² ORNL/CCP Recertification Audit A-14-29 Table C6-2 Acceptable Knowledge (AK) Checklist ¹	Procedure Documented		Example of Implementation/ Objective Evidence, as applicable		Comment (e.g., any change in procedure since last audit, etc.)
		Location	Adequate? Y/N (Why)	Item Reviewed	Adequate? Y/N	
GENERAL REQUIREMENTS						
134	Are the primary document(s) required in Permit Attachment C4 containing acceptable knowledge information available? (Section C4-2)	N/A	N/A	N/A	N/A	Evaluated during A-14-03
135	Has the generator developed a methodology whereby a logical sequence of acceptable knowledge information that progresses from general facility to more detailed waste-specific information can be acquired? (Section C4-2)	N/A	N/A	N/A	N/A	Evaluated during A-14-03
136	Does the site have adequate procedures in place to ensure that the Acceptable Knowledge process is adequately implemented? Do these procedures facilitate the mandatory traceability analysis performed for each Summary Waste Category Group examined during the audit? (Section C4-2)	N/A	N/A	N/A	N/A	Evaluated during A-14-03
137	Does the generator site's TRU mixed waste management program information clearly define (or provide a methodology for defining) waste categorization schemes and terminology, provide a breakdown of the types and quantities of TRU mixed waste generated/stored at the site, and describe how waste is tracked and managed at the generator site (including historical and current operations)? Do procedures ensure that waste streams are adequately identified? (Section C4-2a)	N/A	N/A	N/A	N/A	Evaluated during A-14-03
138	Does site documentation procedures indicate that the site will document, justify, and consistently define waste streams and assign EPA hazardous waste numbers? (Section C4-2b)	N/A	N/A	N/A	N/A	Evaluated during A-14-03

	WAP Requirement ² ORNL/CCP Recertification Audit A-14-29 Table C6-2 Acceptable Knowledge (AK) Checklist ¹	Procedure Documented		Example of Implementation/ Objective Evidence, as applicable		Comment (e.g., any change in procedure since last audit, etc.)
		Location	Adequate? Y/N (Why)	Item Reviewed	Adequate? Y/N	
REQUIRED AND ADDITIONAL INFORMATION						
140	<p>Does the generator site document that the following must be included in the acceptable knowledge record:</p> <ul style="list-style-type: none"> • Map of the site with the areas and facilities involved in TRU waste generation, treatment, and storage identified • Facility mission description as related to TRU waste generation and management (e.g., nuclear weapons research may involve metallurgy, radiochemistry, and nuclear physics operations that result in specific waste streams) • Description of the operations that generate TRU waste at the site (e.g., plutonium recovery, weapons design, or weapons fabrication) • Waste identification or categorization schemes used at the facility (e.g., item description codes, content codes) • Types and quantities of TRU mixed waste generated, including historical generation through future projections • Correlation of waste streams generated from the same building and process, as appropriate (e.g., sludge, combustibles, metals, and glass) • Waste certification procedures for retrievably stored and newly generated wastes to be sent to the WIPP facility <p>(Section C4-2a)</p>	N/A	N/A	N/A	N/A	Evaluated during A-14-03
141	<p>Does the generator site document that the following shall be collected for each waste stream:</p> <ol style="list-style-type: none"> A. Area(s) and/or building(s) from which the waste stream was or is generated B. Waste stream volume and time period of generation (e.g., 100 standard waste boxes of retrievable stored waste generated from June 1977 through December 1977) C. Waste generating process described for each building (e.g., batch waste stream generated during decommissioning operations of glove boxes), including processes associated with U134 waste generation, if applicable. D. Documentation demonstrating how the site has historically managed the waste, including the historical regulatory status of the waste (i.e., TRU mixed versus TRU non-mined waste) E. Process flow diagrams (e.g., a diagram illustrating glove boxes from a specific building to a size reduction facility to a container storage area). In the case of research/development, analytical laboratory waste, or the 	N/A	N/A	N/A	N/A	Evaluated during A-14-03

	WAP Requirement ² ORNL/CCP Recertification Audit A-14-29 Table C6-2 Acceptable Knowledge (AK) Checklist ¹	Procedure Documented		Example of Implementation/ Objective Evidence, as applicable		Comment (e.g., any change in procedure since last audit, etc.)
		Location	Adequate? Y/N (Why)	Item Reviewed	Adequate? Y/N	
	<p>similar processes where process flow diagrams cannot be created, a description of the waste generating processes, rather than a formal process flow diagram, may be included if this modification is justified and the justification is placed in the auditable record</p> <p>F. Material inputs or other information that identifies the chemical content of the waste stream and the physical waste form (e.g., glove box materials and chemical handled during glove box operations, events or processes that may have modified the chemical or physical properties of the waste stream after generation, data obtained through visual examination of newly generated waste that later undergoes radiography; information demonstrating neutralization of U134 [hydrofluoric acid] and waste compatibility.</p> <p>(Section C4-2b)</p>					
142	<p>Do site documents/procedures require that the facility will provide a summary to the Permittees that summarizes all information collected, including basis and rationale for all waste stream designations? Is an example of this summary available for audit review? If discrepant hazardous waste data exist in required information, do sites consider applying all hazardous waste numbers, but assess and evaluate the information to determine the appropriate hazardous waste number consistent with RCRA requirements?</p> <p>(Section C4-2b)</p>	N/A	N/A	N/A	N/A	Evaluated during A-14-03
143	<p>Do site procedures indicate that if the required AK information is not available for a particular waste stream, that the waste stream will not be eligible for an AK Sufficiency Determination?</p> <p>(Section C4-2)</p>	N/A	N/A	N/A	N/A	Evaluated during A-14-03

	WAP Requirement ² ORNL/CCP Recertification Audit A-14-29 Table C6-2 Acceptable Knowledge (AK) Checklist ¹	Procedure Documented		Example of Implementation/ Objective Evidence, as applicable		Comment (e.g., any change in procedure since last audit, etc.)
		Location	Adequate? Y/N (Why)	Item Reviewed	Adequate? Y/N	
147	Does the generator site discrepancy analysis documentation (for acceptable knowledge additional and required documentation) indicate that if discrepancies are detected, the site may consider applying all hazardous waste numbers indicated in the required and additional information, but must assess and evaluate the information to determine the appropriate hazardous waste numbers consistent with RCRA requirements? (Section C4-2c)	N/A	N/A	N/A	N/A	Evaluated during A-14-03
TRAINING						
148	Does the generator site have procedures to ensure that all personnel involved with acceptable knowledge waste characterization have the following training, and is this training documented? A. WIPP WAP in Permit Attachment C and the TSDf-WAC specified in this permit B. State and Federal RCRA regulations associated with solid and hazardous waste characterization C. Discrepancy resolution and reporting D. Site-specific procedures associated with waste characterization using acceptable knowledge (Section C4-3a)	N/A	N/A	N/A	N/A	Evaluated during A-14-03
PROCEDURES						
149	Has the generator site developed the following procedures, and are these procedures technically sufficient? A. Sites must prepare and implement a written procedure outlining the specific methodology used to assemble acceptable knowledge records, including the origin of the documentation, how it will be used, and any limitations associated with the information (e.g., identify the purpose and scope of a study that included limited sampling and analysis data). B. Sites must develop and implement a written procedure to compile the required acceptable knowledge record. C. Sites must develop and implement a written procedure that ensures unacceptable wastes (e.g., reactive, ignitable, corrosive) are identified and segregated from TRU mixed waste populations sent to WIPP. D. Sites must prepare and implement a written procedure to evaluate acceptable knowledge and resolve discrepancies. For example, if different sources of information indicate different hazardous wastes are present, then	N/A	N/A	N/A	N/A	Evaluated during A-14-03

	WAP Requirement ² ORNL/CCP Recertification Audit A-14-29 Table C6-2 Acceptable Knowledge (AK) Checklist ¹	Procedure Documented		Example of Implementation/ Objective Evidence, as applicable		Comment (e.g., any change in procedure since last audit, etc.)
		Location	Adequate? Y/N (Why)	Item Reviewed	Adequate? Y/N	
	sites must include all sources of information in its records and may choose to either conservatively assign hazardous waste numbers, or assign only those numbers deemed appropriate and consistent with RCRA requirements. All information used to justify assignment of hazardous waste numbers must be placed in the auditable record. Further, the assignment of hazardous waste numbers shall be tracked in the auditable record to all required documentation.					
149a	<p>E. Sites must prepare and implement a written procedure to identify hazardous wastes and assign the appropriate hazardous waste numbers to each waste stream. The following are minimum baseline requirements/standards that site-specific procedures must include to ensure comparable and consistent characterization of hazardous waste:</p> <ol style="list-style-type: none"> 1. Compile all of the required information in an auditable record. 2. Review the compiled information and delineate waste streams. Delineation of waste streams must comply with the WAP definition in Permit Attachment C, Section C-0a, and justify combining waste historically managed separately as TRU mixed and TRU non-mixed waste streams into a single waste stream. 3. Review the compiled information to determine if the waste stream is compliant with the TSDF-WAC 4. Review the required information to determine if the waste is listed under 20.4.1.200 NMAC (incorporating 40 CFR 261), Subpart D. Assign all listed hazardous waste numbers, unless the site chooses to justify an alternative assignment and document the justification in the auditable record. 5. Review the required information to determine if the waste exhibits a hazardous characteristic or may contain hazardous constituents included in the toxicity characteristics specified in 20.4.1.200 NMAC (incorporating 40 CFR 261, Subpart C. If a toxicity characteristic contaminant is identified and is not included as a listed waste, sites may evaluate available data and assign the toxicity characteristic hazardous waste number consistent with RCRA requirements. All data examined to reach the hazardous waste number determination must be placed in the auditable record and must present a clear justification for the hazardous waste number analyses. 6. Review the compiled information to provide an estimate of the material parameter weights for each container to be stored or disposed of at WIPP. For newly generated waste, procedures shall be developed and implemented to characterize hazardous waste using acceptable knowledge prior to packaging. 	N/A	N/A	N/A	N/A	Evaluated during A-14-03

	WAP Requirement ² ORNL/CCP Recertification Audit A-14-29 Table C6-2 Acceptable Knowledge (AK) Checklist ¹	Procedure Documented		Example of Implementation/ Objective Evidence, as applicable		Comment (e.g., any change in procedure since last audit, etc.)
		Location	Adequate? Y/N (Why)	Item Reviewed	Adequate? Y/N	
149b	<p>F. Sites shall ensure that results of audits of the TRU mixed waste characterization programs at the site are available in the records.</p> <p>G. Sites shall identify all process controls (implemented to ensure that the waste contains no prohibited items and to control hazardous waste content and/or physical form) that have been applied to retrievably stored waste and/or may presently be applied to newly generated waste. Process controls are applied <u>at the time</u> of waste generation/packaging to control waste content, whereas any activities performed <u>after</u> waste generation/packaging to identify prohibited items, hazardous waste content, or physical form are waste characterization activities, not process controls. The AK record must contain specific process control and supporting documentation identifying when these process controls are used to control waste content. See Permit Attachment C, Section C-2 for programmatic requirements related to process controls.</p> <p>(Section C4-3b)</p>	N/A	N/A	N/A	N/A	Evaluated during A-14-03
150	<p>Does the site have implemented procedures which comply with the following criteria to establish acceptable knowledge records:</p> <p>A. Acceptable knowledge information shall be compiled in an auditable record, including a road map for all applicable information.</p> <p>B. The overview of the facility and TRU mixed waste management operations in the context of the facility's mission shall be correlated to specific waste stream information.</p> <p>C. Correlations between waste streams, with regard to time of generation, waste generating processes, and site-specific facilities shall be clearly described. For newly generated wastes, the rate and quantity of waste to be generated shall be defined.</p> <p>D. A reference list shall be provided that identifies documents, databases, Quality Assurance protocols, and other sources of information that support the acceptable knowledge information.</p> <p>E. Container inventories for TRU mixed waste in retrievable storage shall be delineated into waste streams by correlating the container identification to all of the required and additional AK information.</p> <p>(Section C4-3c)</p>	N/A	N/A	N/A	N/A	Evaluated during A-14-03
151	<p>If the generator site submitted an AK Sufficiency Determination Request for a specific waste stream, did the site provide all of the requisite information for which approval is sought?</p> <p>(Section C-0b)</p>	N/A	N/A	N/A	N/A	Evaluated during A-14-03

	WAP Requirement ² ORNL/CCP Recertification Audit A-14-29 Table C6-2 Acceptable Knowledge (AK) Checklist ¹	Procedure Documented		Example of Implementation/ Objective Evidence, as applicable		Comment (e.g., any change in procedure since last audit, etc.)
		Location	Adequate? Y/N (Why)	Item Reviewed	Adequate? Y/N	
RE-EVALUATING ACCEPTABLE KNOWLEDGE						
152	Does the generator site have written procedures for the augmentation of all acceptable knowledge information using testing. Testing consists of radiography and visual examination. Do site procedures indicate that the following testing will be conducted based upon the results of the Determination Request AKSD denied - 100% RTR or VE (Section C4-1, C-0b)	N/A	N/A	N/A	N/A	Evaluated during A-14-03
155	Does the generator site have procedures for reevaluating acceptable knowledge if the results of the waste characterization indicate that the waste to be shipped does not match the approved waste stream or if the data from radiography or visual examination for waste streams without an AK Sufficiency Determination exhibit this discrepancy? Does this procedure describe how the waste is reassigned, acceptable knowledge reevaluation, and appropriate hazardous waste numbers are assigned? (Section C4-3e)	N/A	N/A	N/A	N/A	Evaluated during A-14-03
156	Do site procedures indicate that debris wastes are assigned toxicity characteristic EPA numbers based on AK regardless of the quantity or concentration? (C4-3e)	N/A	N/A	N/A	N/A	Evaluated during A-14-03

	WAP Requirement ² ORNL/CCP Recertification Audit A-14-29 Table C6-2 Acceptable Knowledge (AK) Checklist ¹	Procedure Documented		Example of Implementation/ Objective Evidence, as applicable		Comment (e.g., any change in procedure since last audit, etc.)
		Location	Adequate? Y/N (Why)	Item Reviewed	Adequate? Y/N	
CRITERIA FOR ASSEMBLING AN ACCEPTABLE KNOWLEDGE RECORD DELINEATING THE WASTE STREAM						
158	<p>If wastes are reassigned to a different waste matrix code based on site visual examination or radiography or Permittee confirmation activities, does the generator site have written documentation to ensure that the following steps are followed:</p> <ul style="list-style-type: none"> A. Review existing information based on the container identification number and document all differences in hazardous waste number assignments B. If differences exist in the hazardous waste numbers that were assigned, reassess and document all required acceptable knowledge information (Section C4-3b) associated with the new designation C. Reassess and document all testing data associated with the waste D. Verify and document that the reassigned waste matrix code was generated within the specified time period, area and buildings, waste generating process, and that the process material inputs are consistent with the waste material parameters identified during radiography or visual examination E. Record all changes to acceptable knowledge records F. If discrepancies exist in the acceptable knowledge information for the revised waste matrix code, document the segregation of the affected portion of the waste stream, and define the actions necessary to fully characterize the waste <p>(Section C4-3e)</p>	N/A	N/A	N/A	N/A	Evaluated during A-14-03
DATA QUALITY REQUIREMENTS						
168	<p>Are acceptable knowledge processes consistently applied among all generator sites, and does each generator site comply with the following data quality requirements for acceptable knowledge documentation:</p> <ul style="list-style-type: none"> A. Precision - The qualitative determinations, such as compiling and assessing acceptable knowledge documentation, do not lend themselves to statistical evaluations of precision. However, the acceptable knowledge information will be addressed by the independent review of acceptable knowledge information during internal and external audits. B. Accuracy - The percentage of waste containers which require reassignment to a new waste matrix code and/or designation of different hazardous waste numbers based on testing data and discrepancies identified by the Permittees during waste confirmation will be reported as a measure of acceptable knowledge accuracy. 	N/A	N/A	N/A	N/A	Evaluated during A-14-03

	WAP Requirement ² ORNL/CCP Recertification Audit A-14-29 Table C6-2 Acceptable Knowledge (AK) Checklist ¹	Procedure Documented		Example of Implementation/ Objective Evidence, as applicable		Comment (e.g., any change in procedure since last audit, etc.)
		Location	Adequate? Y/N (Why)	Item Reviewed	Adequate? Y/N	
	C. Completeness - The acceptable knowledge record must contain 100 percent of the information (Permit Attachment C4-3). The usability of the acceptable knowledge information will be assessed for completeness during audits.					
168a	D. Comparability - Comparability is ensured through sites meeting the training requirements and complying with the minimum standards outlined for procedures that are used to implement the acceptable knowledge process. All sites must assign hazardous waste numbers in accordance with Permit Attachment C4-4 and provide this information regarding its waste to other sites who store or generate a similar waste stream. E. Representativeness - Representativeness is a qualitative parameter that will be satisfied by ensuring that the process of obtaining, evaluating, and documenting acceptable knowledge information is performed in accordance with the minimum standards established in Permit Attachment C4. Sites also must assess and document the limitations of the acceptable knowledge information used to assign hazardous waste numbers (e.g., purpose and scope of information, date of publication, type and extent to which waste parameters are addressed). (Section C3-3)	N/A	N/A	N/A	N/A	Evaluated during A-14-03
169	Does the generator site address quality control by tracking its performance with regard to the use of acceptable knowledge by: 1) assessing the frequency of inconsistencies among information, and 2) documenting the results of waste discrepancies identified by the generator/storage site during waste characterization or the Permittees during waste confirmation using radiography, review of radiography audio/video recordings, or visual examination, or review of visual examination records. In addition, the acceptable knowledge process and waste stream documentation must be evaluated through internal assessments by generator/storage site quality assurance organizations. (Section C4-3e)	N/A	N/A	N/A	N/A	Evaluated during A-14-03

1. NMED expects a traceability analysis to be performed, the results of which should be presented on this checklist under the "Examples of Implementation" column. Further, the traceability analysis process and results should be discussed in the Final Audit Report.
2. The WAP requirements should be presented in documents, such as procedures. Each of the questions posed under WAP requirements are meant to determine whether procedures are in place or whether documents are evident which demonstrate that the specific WAP requirement is or can be met.

**Table C6-4 Visual Examination (VE) Checklist
ORNL/CCP Recertification Audit A-14-29
July 29 – 30, 2014**

(This page intentionally blank)

Visual Examination (VE) Checklist

	WAP Requirement ¹ ORNL/CCP Recertification Audit A-14-29 Table C6-4 Visual Examination (VE) Checklist	Procedure Documented		Example of Implementation/ Objective Evidence, as applicable		Comment (e.g., any change in procedure since last audit, etc.)
		Location	Adequate? Y/N (Why)	Item Reviewed	Adequate? Y/N	
TRAINING						
296	Is there documentation which shows that a standardized training program for visual examination operators has been developed? Is it specific to the site and include the various waste configurations generated/stored at the site? (Section C1-2)	CCP-QP-002 S. 4.1.2, 4.2 NOTE & 4.3.6 CCP-TP-113 S. 2.2	Y	Training Records for 3 VE Operators and 1 VE Expert (VE-2)	Y	
297	Is there documentation which shows that the visual examination operators receive training on the specific waste generating processes, typical packaging configurations, and waste material parameters expected to be found in each Waste Matrix Code at the site? (Section C1-2)	CCP-QP-002 S. 4.1.2, 4.2 NOTE & 4.3.6 CCP-TP-113 S. 2.2	Y	Training Records for 3 VE Operators and 1 VE Expert (VE-2)	Y	
298	Are the visual examination personnel requalified once every two years? (Section C1-2)	CCP-QP-002 S. 4.1.2[H] & 4.3.6 CCP-TP-113 S. 2.2	Y	Training Records for 3 VE Operators and 1 VE Expert (VE-2)	Y	
298a	Does the training include the following regardless of Summary Category Group? <ul style="list-style-type: none"> • Identifying and describing the contents of a waste container by examining all items in waste containers of previously packaged waste. • Identifying when VE cannot be used to meet the DQOs. (Section C1-2)	CCP-QP-002 S. 4.1.2 & 4.3.6 CCP-TP-113 S. 1.0 & 1.1	Y	Training Records for 3 VE Operators and 1 VE Expert (VE-2)	Y	
VISUAL EXAMINATION EXPERT REQUIREMENTS						
300	Does documentation ensure that the site has designated a visual examination expert? Is the visual examination expert familiar with the waste generating processes that have taken place at the site? Is the visual examination expert familiar with all of the types of waste being characterized at that site? (Section C1-2)	CCP-PO-001 S. C1-2 CCP-QP-002 S. 3.1.6, 4.2 NOTE, & 4.4.1 CCP-TP-113 S. 3.2	Y	VEE Appointment Letter and training records (VE-3)	Y	

	WAP Requirement ¹ ORNL/CCP Recertification Audit A-14-29 Table C6-4 Visual Examination (VE) Checklist	Procedure Documented		Example of Implementation/ Objective Evidence, as applicable		Comment (e.g., any change in procedure since last audit, etc.)
		Location	Adequate? Y/N (Why)	Item Reviewed	Adequate? Y/N	
301	Does documentation ensure that the visual examination expert shall be responsible for the overall direction and implementation of the visual examination aspects of the program? Does the site's QAPjP specify the selection, qualification, and training requirements of the visual examination expert? (Section C1-2)	CCP-TP-113 S. 3.2	Y	VEE Appointment Letter and training records (VE-3)	Y	
VISUAL EXAMINATION PROCEDURES						
304	Do procedures indicate that all visual examination activities are documented on video/audio media or VE performed by using a second operator to provide additional verification by reviewing the contents of the waste container to ensure correct reporting? (Section C1-2)	CCP-TP-113 S. 1.1, Att. 1 & 2	Y	BDRs ORNLCHVE0101 ORNLCHVE0102 ORNLCHVE0103 ORNLCHVE0104 ORNLCHVE0108 ORNLCHVE0109 ORNLCHVE0110 (VE-1)	Y	
304a	Are procedures in place to ensure that when VE is performed using a second operator, each operator performing VE shall observe for themselves the waste being placed in the container or the contents within the examined waste container when waste is not removed? (Section C1-2)	CCP-TP-113 S. 2.6.3, Att.1 &2	Y	BDRs ORNLCHVE0101 ORNLCHVE0102 ORNLCHVE0103 ORNLCHVE0104 ORNLCHVE0108 ORNLCHVE0109 ORNLCHVE0110 (VE-1)	Y	
313	Do site procedures ensure that when liquid is found, the non-transparent internal container holding the liquid will be assumed to be filled with liquid and this volume will be added to the total liquid in the container being characterized using VE? The container being characterized using VE would then be rejected and/or repackaged to exclude the internal container if it is over the TSDf-WAC limits. (Section C-3b)	CCP-TP-113 S. 4.0 (NOTE) Att. 2 & Table 1	Y	BDRs ORNLCHVE0101 ORNLCHVE0102 ORNLCHVE0103 ORNLCHVE0104 ORNLCHVE0108 ORNLCHVE0109 ORNLCHVE0110 (VE-1)	Y	
QUALITY ASSURANCE OBJECTIVES						
314	Are process procedures in place to meet the following Quality Assurance Objectives? <u>Precision</u> <ul style="list-style-type: none"> Precision is maintained by reconciling any discrepancies between the operator and the independent technical reviewer with regard to 	Bullet 1 CCP-TP-113 S. 4.4, Att. 2 & 3	Y	BDRs ORNLCHVE0101 ORNLCHVE0102 ORNLCHVE0103 ORNLCHVE0104 ORNLCHVE0108	Y	

	WAP Requirement ¹ ORNL/CCP Recertification Audit A-14-29 Table C6-4 Visual Examination (VE) Checklist	Procedure Documented		Example of Implementation/ Objective Evidence, as applicable		Comment (e.g., any change in procedure since last audit, etc.)
		Location	Adequate? Y/N (Why)	Item Reviewed	Adequate? Y/N	
	identification of waste matrix code, liquids in excess of TSDF-WAC limits, and compressed gases. <u>Accuracy</u> <ul style="list-style-type: none"> Accuracy is maintained by requiring operators to pass a comprehensive examination and demonstrate satisfactory performance in the presence of the VE expert during their initial qualification. VE operators shall be requalified every two years. <u>Completeness</u> <ul style="list-style-type: none"> A validated VE data form will be obtained for 100 percent of the waste containers subject to VE. <u>Comparability</u> <ul style="list-style-type: none"> The comparability of VE data from different operators shall be enhanced by using standardized VE procedures and operator qualifications. (Section C3-2b)	Bullet 2 CCP-QP-002 S. 4.1.2[H] & 4.3.6 Bullet 3 CCP-TP-113 Att. 1 & 2 & 3 Bullet 4 CCP-QP-002 (ALL) CCP-TP-113 (ALL)		ORNLCHVE0109 ORNLCHVE0110 (VE-1) Training Records for 3 VE Operators and 1 VE Expert (VE-2)		

1. The WAP requirements should be presented in documents, such as procedures. Each of the questions posed under WAP requirements is meant to ask whether procedures are in place or whether documents are evident which demonstrate that the specific WAP requirement is or can be met.

Attachment 1 – CCP SPM Visual Examination Project Level Validation Checklist and Summary

BDR Number: <u>ORVECH0101</u>		Examination Date(s): <u>05/27/2014</u>		
Description of Criteria Reviewed	Criteria Met?			Comments/Qualifiers
	YES	NO	NA	
1. Is the completed, signed and dated Independent Technical Reviewer Checklist included in the BDR, and the independent technical reviewer was not involved in the generation or recording of the data under review? Reference Source: CCP-PO-001, C3-4	X			
2. Does the BDR contain all items addressed in the BDR Table of Contents? Reference Source: CCP-PO-001, C3-4	X			
3. Does the BDR include a listing of all container numbers in the batch? Reference Source: CCP-PO-001, C3-4	X			
4. List all containers that have met QAOs. Reference Source: CCP-PO-001, C3-4				Container Numbers: X10C9311429D1
5. Is the current implementing procedure and revision number included in the BDR? Reference Source: CCP-PO-001, Table C3-3	X			
6. Is the BDR date included? Reference Source: CCP-PO-001, Table C3-3	X			
7. Is there a reference to or copy of any associated NCRs (if any) in the BDR? Reference Source: CCP-PO-001, Table C3-3	X			NCR-ORNL-0702-14 NCR-ORNL-0159-14
8. Are there 20 or fewer containers in the batch? Reference Source: CCP-PO-001 C3-4	X			
9. Are the data properly reported (i.e., data are reported in correct units and with correct significant figures). Reference Source: CCP-PO-001 C3-4	X			
10. Is there evidence of verification that the physical form matches the Waste Matrix Code? Reference Source: CCP-PO-001, Table C3-3	X			
11. Is there evidence of verification that the physical form matches the waste stream description? Reference Source: CCP-PO-001, Table C3-3	X			
12. Are prohibited items absent? Reference Source: CCP-PO-001, Table C3-3	X			

NTPC RECORDS ORIGINAL
DATE REC'D 10-25-14 GL

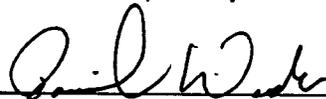
Attachment 1 – CCP SPM Visual Examination Project Level Validation Checklist and Summary (Continued)

BDR Number: <u>ORVECH0101</u>		Examination Date(s): <u>05/27/2014</u>		
Description of Criteria Reviewed	Criteria Met?			Comments/Qualifiers
	YES	NO	NA	
13. Does observable liquid, if present, meet the criteria of the TSDF-WAC? Reference Source: CCP-PO-001, C-1			X	No observable liquid.
14. Were discrepancies between the Visual Examination operator and the ITR with regards to identification of waste matrix code, liquids in excess of the TSDF-WAC, or compressed gases reconciled? NA if no discrepancies. Reference Source: CCP-PO-001, C3-2			X	
15. Are the training requirements met for the VE Expert and VE Operators who have signed the data forms? Reference Source: CCP-PO-001, C3-8	X			
16. Is evidence of a satisfactory audio/video test included in the BDR? NA [not applicable] for VE Method for Newly Generated Waste. Reference Source: CCP-PO-001, C1-2			X	
17. If the VE was not recorded using audio/video media, does the data sheet contain the signature of two qualified operators who observed for themselves the waste being placed into the container? NA if audio/video used. Reference Source: CCP-PO-001, C1-2	X			
18. Are the weights/estimated weights for the 12 waste material parameters reported in kilograms (kg)? Reference Source: CCP Technical Procedures	X			
19. Are the descriptions for each waste material parameter included in the BDR? Reference Source: CCP-PO-001, C1-2	X			
20. Is the gross weight reported (in kg) for each container included in the BDR? Reference Source: CCP Technical Procedures	X			
21. Is the number of layers of confinement recorded? Reference Source: CCP-PO-001, C1-2	X			
22. Is sufficient information included in the BDR to determine the packaging configuration? Reference Source: CCP-PO-001, C1-2	X			

Attachment 1 – CCP SPM Visual Examination Project Level Validation Checklist and Summary (Continued)

BDR Number: <u>ORVECH0101</u>		Examination Date(s): <u>05/27/2014</u>		
Description of Criteria Reviewed	Criteria Met?			Comments/Qualifiers
	YES	NO	NA	
23. Is the type and number of filters recorded? Reference Source: CCP-PO-001, CCP Technical Procedures	X			
24. Is the size of the rigid liner vent hole recorded? NA if no liner lid. Reference Source: CCP-PO-001, CCP Technical Procedures			X	
25. For Los Alamos National Laboratory (LANL) Sealed Sources, does the characterized waste container meet the definition of sealed sources per Title 10 Code of Federal Regulations (CFR) 30.4 and Title 10 CFR 835.2 (effective January 1, 2004) evidence of which is assembled as part of AK documentation? Reference Source: CCP Technical Procedures			X	Not a LANL Sealed Source.
26. For LANL Sealed Sources, are sealed sources the only non-packaging items in the waste container? Reference Source: CCP-TP-069, 4.1.4			X	Not a LANL Sealed Source.
27. For LANL Sealed Sources, are the sealed sources a U.S. Department of Transportation (DOT) Special Form Class 7 (Radioactive Material) per Title 49 CFR 34.27 (effective January 1, 2004) and the certification of which is assembled as part of the AK documentation? Reference Source: CCP Technical Procedures			X	Not a LANL Sealed Source.
28. For LANL Sealed Sources, is the integrity of each sealed source validated by documented contamination survey results to meet the requirements of Title 10 CFR 34.27 (effective January 1, 2004), and assembled as part of AK documentation? Reference Source: CCP Technical Procedures			X	Not a LANL Sealed Source.

Attachment 1 – CCP SPM Visual Examination Project Level Validation Checklist and Summary (Continued)

BDR Number: <u>ORVECH0101</u>		Examination Date(s): <u>05/27/2014</u>		
Description of Criteria Reviewed	Criteria Met?			Comments/Qualifiers
	YES	NO	NA	
29. For LANL Sealed Sources, is each sealed source a rigid sealed container less than or equal to 4 L in size or in a rigid sealed container less than or equal to 4 L? Reference Source: CCP Technical Procedures			X	Not a LANL Sealed Source.
30. For LANL Sealed Sources, AK documentation does not indicate the use of volatile organic compounds (VOCs) or VOC-bearing materials as constituents of sealed sources? Reference Source: CCP Technical Procedures			X	Not a LANL Sealed Source.
31. For LANL Sealed Sources, the outer casing of each sealed source is of a non VOC-bearing material which is verified using the VE technique at the time of packaging? Reference Source: CCP Technical Procedures			X	Not a LANL Sealed Source.
Comments: NCR-ORNL-0159-14 attached as SPM-1, SPM-2, and SPM-3.				
The container QC checks were properly performed and meet the Quality Assurance Objectives (QAOs). Proper procedures were followed during data reduction and analysis. The batch is complete, acceptable, and includes all supporting data and documentation required by the QAPjP.				
Daniel Wade				06/25/2014
SPM Printed Name		Signature		Date

Checklist is to be re-signed only when a re-review is performed.

SPM Printed Name Signature Reason Date

SPM Printed Name Signature Reason Date

Attachment 1 – CCP Nonconformance Report (NCR)

CCP NONCONFORMANCE REPORT (NCR)

(Use NCR Continuation, Attachment 3, if necessary)

NCR No. NCR-ORNL-0159-14		Revision 0
1. Lot No., Heat No., or Serial No. (if applicable): N/A	2. Process (e.g., NDA, NDE, VE, Other): VE	3. Batch Data Report #(s): 1. ORVECH0101 2. ORVECH0102 3. ORVECH0103 4. ORVECH0104
4. Order/Work Order/Job Control Number (if applicable): N/A	5. PO # (if applicable): N/A	Container #(s): 1. X10C9311429D1 2. X10C9311113A1 3. X10C9311031A1, X10C9312842A1 4. X10CSATN03195A1
	6. Supplier (if applicable): N/A	
DESCRIPTION OF NONCONFORMANCE		
7a. NCR Description: <input type="checkbox"/> < 100 nCi/g <input type="checkbox"/> Prohibited Item <input type="checkbox"/> E-Flag <input type="checkbox"/> Receipt Inspection <input type="checkbox"/> Transportation <input type="checkbox"/> WWIS/WDS <input checked="" type="checkbox"/> Other		
7b. Requirement(s) (Enter Implementing Procedure No., Revision, Section No., & Quoted Text): CCP-TP-113, CCP Standard Contact-Handled Waste Visual Examination, Rev. 18 Section 4.3.2 [D] "Perform the following, AND record the applicable data for the Output Waste Container in Section 1 of Attachment 2. IF a rigid liner is present, THEN record YES, the Type of Liner, and Thickness."		
7c. Actual Condition: On Attachment 2-CCP Waste Visual Examination Data Form, the Operator did not record the Thickness of the rigid liner.		
7d. Have the CCP HOLD TAGS associated with this NCR been applied? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO If no is checked, explain: <p style="text-align: center;">06/19/14 LRE</p>		
8. NCR Originator: Daniel Wade <i>Daniel Wade</i> 06/18/2014 printed name signature date		
9. Does the identified condition have the potential to impact AK? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> INDETERMINATE If YES or INDETERMINATE, enter Trend Code L in Block 10.		
10. Trend Code: A	11. Responsible Manager: Beverly Schrock	
12. Significant Condition? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO (If Yes, enter WIPP Form No.):	13. Recurring Condition? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO (If Yes, list NCRs and WIPP Forms):	
14. QA Engineer or QA Designee validation: <i>Laura R. Jones</i> <i>Laura R. Jones</i> 06/18/14 printed name signature date		

SPM-1
QW 6/25/14

Attachment 1 – CCP Nonconformance Report (NCR) (Continued)

NCR No. <u>NCR-ORNL-0159-14</u> Revision <u>0</u>		
INTERIM DISPOSITION		
15a. Interim Disposition (Check Only One):		
<input checked="" type="checkbox"/> N/A (See Final Disposition)	<input type="checkbox"/> Hold	<input type="checkbox"/> Conditionally Accept
<input type="checkbox"/> Sort	<input type="checkbox"/> Reinspect or Retest	<input type="checkbox"/> Conditionally Use
<input type="checkbox"/> Remediate		
15b. Instructions for Completion of the Interim Disposition:		
INTERIM DISPOSITION APPROVALS		
16a. Responsible Manager or Individual:		
_____	_____	_____
printed name	signature	date
16b. QA Engineer or QA Designee:		
_____	_____	_____
printed name	signature	date
Additional Approval:		
_____	_____	_____
printed name	signature	date
Additional Approval:		
_____	_____	_____
printed name	signature	date
COMPLETION OF INTERIM DISPOSITION		
17. Interim Disposition Complete – Responsible Manager or Individual:		
_____	_____	_____
printed name	signature	date
18. Interim Disposition Verified – QA Engineer:		
_____	_____	_____
printed name	signature	date

SPM-2
QW 6/25/14

Attachment 1 – CCP Nonconformance Report (NCR) (Continued)

NCR No. <u>NCR-ORNL-0159-14</u> Revision <u>0</u>		
FINAL DISPOSITION		
19. Final Disposition (Check Only One: Use-As-Is, Repair, Reject, Rework, or Scrap): <input type="checkbox"/> Use-As-Is <input type="checkbox"/> Repair		
19a. Technical Justification – Required for <u>Use-As-Is</u> or <u>Repair</u> dispositions. [<input checked="" type="checkbox"/> N/A for Reject, Rework, or Scrap]		
----- <input type="checkbox"/> Reject <input checked="" type="checkbox"/> Rework <input type="checkbox"/> Scrap		
19b. Instructions for Completion – Required for <u>Reject</u> , <u>Repair</u> , <u>Rework</u> , or <u>Scrap</u> [<input type="checkbox"/> N/A for Use-As-Is] 1.) VE-Operator, make needed corrections. 2.) VE-ITR, review. 3.) SPM review.		
----- 19c. Corrective Actions (Actions to Prevent Recurrence – For <u>Repair</u> or <u>Rework</u> , if applicable. [<input checked="" type="checkbox"/> N/A if not applicable, and for Use-As-Is, Reject, and Scrap]		
FINAL DISPOSITION APPROVALS		
20. Responsible Manager or Individual:		
_____	_____	_____
Beverly Schrock <small>printed name</small>	<i>BSSchrock</i> <small>signature</small>	6/18/14 <small>date</small>
21. QA Engineer or QA Designee:		
_____	_____	_____
Laura R. Jones <small>printed name</small>	<i>Laura Laura Jones</i> <small>signature</small>	6/18/2014 <small>date</small>
Additional Approval:		
_____	_____	_____
<small>printed name</small>	<small>signature</small>	<small>date</small>
Additional Approval:		
_____	_____	_____
<small>printed name</small>	<small>signature</small>	<small>date</small>
CLOSURE		
22. Final Disposition Complete - Responsible Manager or Individual:		
_____	_____	_____
<small>printed name</small>	<small>signature</small>	<small>date</small>
23. Attachments: 1- Email Documenting Reportability. 2- Hold tag information		
24a. HOLD TAG removal has been verified and reconciled for all nonconforming items on the NCR: <input type="checkbox"/>		
24b. If HOLD TAG is not applicable, check: <input type="checkbox"/> and explain:		
25. Final Disposition Verified – NCR Closed- QA Engineer:		
_____	_____	_____
<small>printed name</small>	<small>signature</small>	<small>date</small>

SPM-3
QW 6/25/14

Attachment 5 – CCP Waste VE Batch Data Report Cover Sheet

Batch Data Report No.: DRVECH0101

Examination Date: 05/27/14

Waste Container ID Number	
1	X10C9311489D1
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	

Independent Technical Reviewer:

<u>Derek Matheny</u>	<u>Derek Matheny</u>	<u>6/3/14</u>
Print Name	Signature	Date

Derek Matheny

6/19/14

Attachment 4 – CCP Waste VE Batch Data Report Table of Contents

Batch Data Report No.: DRVECHO101

Examination Date: 05/27/14

Table of Contents		
Item	Description	Page No.
1	CCP Waste VE Batch Data Report Cover Sheet	1
2	CCP Waste VE Batch Data Report Table of Contents	2
3	CCP Waste Visual Examination General Information Form	3
4	CCP Waste Visual Examination Data Forms	4
5	CCP Waste VE Independent Technical Reviewer Checklist	9
6	Copy of NCRs (N/A, If Not Applicable)	11
7	Field Records (N/A, If Not Applicable)	N/A

Attachment 1 – CCP Waste Visual Examination General Information Form

Batch Data Report No.: ORVECH0101

<input checked="" type="checkbox"/> VE for Previously Packaged Waste <input type="checkbox"/> VE for Newly Generated Waste	
<input type="checkbox"/> Method 1 <input checked="" type="checkbox"/> Method 2	
Site ID: <u>OR</u>	
Examination Date: <u>5-27-14</u>	
Procedure No.: <u>CCP-TP-113</u> Revision No.: <u>18</u>	
Camera/Audio/Video Media Recording Check: <input checked="" type="checkbox"/> N/A <input type="checkbox"/> SAT	
VE Scale Information: <input checked="" type="checkbox"/> N/A Serial/ID Number: _____ Calibration Due Date: _____ Operational Check: <input type="checkbox"/> SAT <input type="checkbox"/> UNSAT	
Test Weight Information Test Weight Total: kg. Tray Weight: kg. Serial/ID Number: _____ Calibration Due Date: _____ Serial/ID Number: _____ Calibration Due Date: _____	
Container Scale Information: Serial/ID Number: <u>WIPP-000</u> Calibration Due Date: <u>6-18-14</u> Operational Check: <input checked="" type="checkbox"/> SAT <input type="checkbox"/> UNSAT	
Comments: <p style="text-align: center;">The VEE has determined that the VE scales will not be used.</p>	
Visual Examination Operator 1: <u>Chuck Wallace</u> <u></u> <u>5-28-14</u> Print Name Signature Date	
Visual Examination Operator 2: <u>Jason Cofe</u> <u></u> <u>5-28-14</u> Print Name Signature Date	

Attachment 1 – CCP Waste Visual Examination General Information Form

Batch Data Report No.: ORVECH01

<input checked="" type="checkbox"/> VE for Previously Packaged Waste <input type="checkbox"/> VE for Newly Generated Waste	
<input type="checkbox"/> Method 1 <input checked="" type="checkbox"/> Method 2	
Site ID: <u>OR</u>	
Examination Date: <u>5-27-14</u>	
Procedure No.: <u>CCP-TP-113</u> Revision No.: <u>18</u>	
Camera/Audio/Video Media Recording Check: <input checked="" type="checkbox"/> N/A	<input type="checkbox"/> SAT
VE Scale Information: <input checked="" type="checkbox"/> N/A	Serial/ID Number: _____ Calibration Due Date: _____ Operational Check: <input type="checkbox"/> SAT <input type="checkbox"/> UNSAT
Test Weight Information Test Weight Total: _____ kg. Tray Weight: _____ kg.	Serial/ID Number: _____ Calibration Due Date: _____ Serial/ID Number: _____ Calibration Due Date: _____ Serial/ID Number: _____ Calibration Due Date: _____
Container Scale Information:	Serial/ID Number: <u>WIPP-003</u> Calibration Due Date: <u>6-18-14</u> Operational Check: <input checked="" type="checkbox"/> SAT <input type="checkbox"/> UNSAT
Comments: <p>The VEE has determined that the VE scale will not be used.</p>	
Visual Examination Operator 1: <u>Chuck Wallace</u> Print Name	<u>[Signature]</u> Signature
	<u>5-27-14</u> Date
Visual Examination Operator 2: <u>Jason Cook</u> Print Name	<u>[Signature]</u> Signature
	<u>5-27-14</u> Date

SUPERCEDED

Batch Data Report No.: DRUECH0101

Input Waste Container ID, as applicable: <u>X10C9311429D</u>	
Output Waste Container ID: <u>X10C9311429D1</u>	Waste Stream ID: <u>OR-ISTP-CH-HET</u>
Container Type: <u>55 Gallon</u>	TRUCON Code: <u>OR 125/225</u> Waste Matrix Code: <u>S5400</u>
Audio/Video Media Recording Number: <input checked="" type="checkbox"/> N/A	
Waste Container Weights: Tare Wt: <u>33.2</u> kg. Gross Wt: <u>74.0</u> kg.	
Rigid Liner Present? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES Type of Liner: <input type="checkbox"/> Lead <input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Fiberboard <input type="checkbox"/> Other: Thickness: <input type="checkbox"/> 30-mil <input checked="" type="checkbox"/> 90-mil <input type="checkbox"/> 110-mil <input type="checkbox"/> 125-mil <u>CW 06/19/14</u>	Rigid Liner Lid Present? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES Rigid Liner Lid is Vented (>0.3 in.) or Filtered? <input type="checkbox"/> NO <input type="checkbox"/> YES <input checked="" type="checkbox"/> N/A <input type="checkbox"/> Vented: Hole Size: <input checked="" type="checkbox"/> N/A <input type="checkbox"/> Filtered: Model No.: <input checked="" type="checkbox"/> N/A Serial No.: <input checked="" type="checkbox"/> N/A
Bag Liner Present? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES	Volume Utilization Percentage: <u>100</u> %
Does the physical form of the waste match the Waste Stream Description (i.e., Homogeneous Solids, Soil/Gravel, or Debris Waste [including uncategorized metals])? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES	
Does the physical form of the waste match the Waste Matrix Code? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES	
Closure Method: <u>TT</u> Number of Layers of Confinement: <u>1</u>	
Filter Torque Wrench Serial/ID No.: <u>1208070374/WIPP126</u> Calibration Due Date: <u>07/18/14</u> <u>CW 06/02/14</u> Filter: Model No.: <u>00234 UT9434X 00234</u> Serial No.: <u>UT9434X 0132</u> <u>CW 05/29/14</u> Torque Value: <u>6 TN. lbs.</u> <u>72 IN. lbs.</u> <u>CW 06/02/14</u>	Lid Ring/Bolt Torque Wrench Serial/ID No.: <u>WIPP149</u> Calibration Due Date: <u>08/12/14</u> Lid Ring/Bolt Torque Value: <u>60 Ft lbs</u>
Is total dose rate greater than 200mrem/hr? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES	
NCR(s) associated with the output container? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES NCR No.: <u>NCR-ORNL-0702-14</u> NCR No.: <u>N/A</u>	
Comments: <u>The container scale was not listed on the MTE list.</u>	

Attachment 2 – CCP Waste Visual Examination Data Form (continued)

Page 2 of 5

Batch Data Report No.: ORVECHO101

Date: 05/27/14

Package and Package TID Number (as applicable)	Waste Description	WMP [Table 3]	Weight (kg) [Table 4,*]	Weighing Code(s) [Table 4*]
N/A	Plastic Bags, Plastic Suits, Plastic Bottle Nylon Strap, Electrical Cord Manipulator Boot	PW	10.0	E
N/A	Absorbant Pad, Fiber board liner, Paper, Cloth Rags, leather Gloves	C	6.5	E
N/A	Rubber Gloves, Rubber Booties, Rubber hose	R	6.8	E
N/A	Metal Vise, Metal Pieces	IM	17.0	E
N/A	Nochar Absorbant	OR	0.5	E
N/A c.w. 05/27/14				

N/A
VEO 1: Print Name

N/A
Signature

N/A
Date

N/A
VEO 2: Print Name

N/A
Signature

N/A
Date

Signatures annotate the absence of prohibited items.

Output Waste Container ID: ~~X10C931142901~~ ^{cw 06/02/14} X10C931142901 ^{cw 06/02/14} ~~10C931142901~~

TID Removed: N/A

TID Applied: MP85W 31353

N/A
VEO 1: Print Name

N/A
Signature

N/A
Date

N/A
VEO 2: Print Name

N/A
Signature

N/A
Date

Signatures of VEO's verifying the loading of the Output Waste Container.

Attachment 2 – CCP Waste Visual Examination Data Form (continued) Page 3 of 5

Batch Data Report No.: DRVECH0101

Output Waste Container ID: X10C9311429D1 ^{CV 06/02/14}
X10C9311429D1

Section 3: Packaging Material and Waste Material Parameters	
Packaging Material:	Estimated Weight (kg)
Steel (ST):	27.8
Plastics (PP):	1.0
Others:	4.4
Total Packaging Weight:	33.2
Waste Material Parameter:	Estimated Weight (kg)
Iron-based Metal/Alloys (IM):	17.0
Aluminum-based Metals/Alloys (AM):	N/A
Other Metals (OM):	N/A
Other Inorganic Materials (OI):	N/A
Cellulosics (C):	6.5
Rubber (R):	6.8
Plastics (waste materials) (PW):	10.0
Organic Matrix (OR):	0.5
Inorganic Matrix (IN):	N/A
Soils (S):	N/A
Total WMP Weight:	40.8

Attachment 2 – CCP Waste Visual Examination Data Form (continued) Page 4 of 5

Batch Data Report No.: ORVECHD101 Output Waste Container ID: X10C9311429D1
CCP 09/02/14

	Yes	No
Is there any observable liquid in internal containers, that is more than 60 milliliters or 3 percent by volume, whichever is greater?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there detectable observable liquid in outermost containers with an EPA Hazardous Waste Number of U134?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there an indication of wastes containing explosives or compressed gases?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there PCB liquids present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are there sealed containers GREATER than 4 liters?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are there indications of inadequate protection (blocked or braced) for heavy and/or sharp objects?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Attachment 2 – CCP Waste Visual Examination Data Form (continued) Page 5 of 5

Batch Data Report No.: DRVECH0101 Output Waste Container ID: X10C9311429D1

Section 4: Prohibited Waste Summary (continued)
Questions answered on Section 3. Do not include comments here.

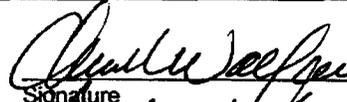
Comments:

N/A

Section 5: Approvals

Visual Examination Operator 1:

Chuck Wallace
Print Name

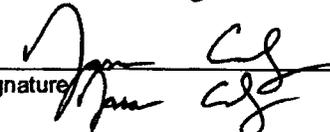

Signature

05/27/14
Date

06/19/14

Visual Examination Operator 2:

Jason Cotez
Print Name


Signature

5-27-14
Date

6/19/14

Attachment 3 – CCP Waste VE Independent Technical Reviewer Checklist

Batch Data Report No.: DRVECH0101

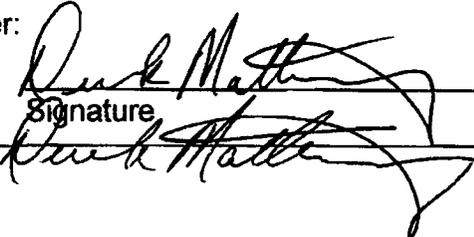
Page 1 of 2

Description			
1. Data generation and reduction were conducted in a technically correct manner in accordance with the methods used?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
2. Was the correct revision of operating procedure used?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
3. Are the waste material parameters (WMPs) entered correctly?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
4. Verify the hand calculations on the VE Data Form for the following:			
a. WMP weight totals	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
b. Weight totals	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
c. Summed volume of observable liquid, as necessary	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> N/A
d. The total of the WMP weights is within 5% of the net weight of waste of the Output Waste Container obtained from subtracting the tare weight from the gross weight.	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
5. Is the data reported in the correct units and correct number of significant figures?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
6. Has the data been reviewed for transcription errors?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
7. Does the Testing Batch Report include VE for up to 20 containers?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
8. BDR contents are complete and match the CCP Waste VE Batch Data Report Table of Contents?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
9. Is all the data signed and dated in reproducible ink and by the individual(s) generating it?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
10. Is all data recorded clearly, legibly, and accurately?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
11. All changes to original data lined out, initialed and dated by the individual making the changes?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
12. Were data changes made by the individual who originally collected the data or an equally qualified individual?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
13. Did the physical form of the waste match the Waste Matrix Code and Waste Stream Description?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A

Attachment 3 – CCP Waste VE Independent Technical Reviewer Checklist (continued)

Batch Data Report No.: DRUECH0101

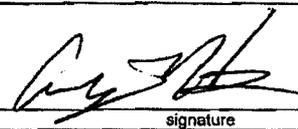
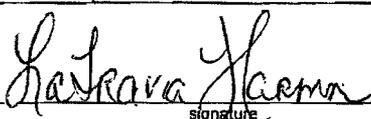
Page 2 of 2

Description			
14. Was the waste in the Output Waste Container(s) examined for prohibited items?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
15. Is there an adequate written description of the contents of each item?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
16. Were the scale(s) in calibration prior to the VE and documented correctly?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
17. Were the scale checks SAT prior to the VE and documented correctly?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
18. Was the audio/video media recording properly prepared and labeled for each waste container?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> N/A
19. Was the audio/video media recording check performed satisfactorily prior to the VE?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> N/A
20. Precision: Was precision maintained by reconciling any discrepancies between the operator and the independent technical reviewer with regard to identification of waste matrix code, liquids in excess of TSDF-WAC limits, and compressed gases?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
21. Accuracy: Was accuracy maintained by requiring operators to pass a comprehensive examination and demonstrate satisfactory performance in the presence of the VE expert during their initial qualification and subsequent requalification (operators on LOQI)?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
22. Completeness: Is there a completed VE data form for each waste container in the BDR?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
23. Were NCRs initiated as required?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
Comments: <i>For questions 16+17 please refer to NCR # NCR-ORNL-0702-14.</i>			
I have reviewed 100 percent of the container-specific and batch data in this report and find it acceptable.			
Independent Technical Reviewer:			
<u>Derek Matheny</u> Printed Name	 Signature	<u>6/13/14</u> Date	
		<u>6/19/14</u>	

Attachment 1 – CCP Nonconformance Report (NCR)

CCP NONCONFORMANCE REPORT (NCR)

(Use NCR Continuation, Attachment 3, if necessary)

NCR No. NCR-ORNL- 0702 -14			Revision 0		
1. Lot No., Heat No., or Serial No. (if applicable): N/A		2. Process (e.g., NDA, NDE, VE, Other): VE		3. Batch Data Report #(s): ORVECH0101 Container #(s): X10C9311429D1	
4. Order/Work Order/Job Control Number (if applicable): N/A		5. PO # (if applicable): N/A			
		6. Supplier (if applicable): N/A			
DESCRIPTION OF NONCONFORMANCE					
7a. NCR Description: <input type="checkbox"/> < 100 nCi/g <input type="checkbox"/> Prohibited Item <input type="checkbox"/> E-Flag <input type="checkbox"/> Receipt Inspection <input type="checkbox"/> Transportation <input type="checkbox"/> WWIS/WDS <input checked="" type="checkbox"/> Other					
7b. Requirement(s) (Enter Implementing Procedure No., Revision, Section No., & Quoted Text): CCP-QP-016, Rev. 19, Section 3.1.1 Verifies M&TE is on the current approved M&TE list on secure file transfer protocol (SFTP) web site (searchable by equipment number) and checks current cal sticker with information on approved list for accuracy. CCP-TP-113, Rev. 18, Section 4.4.14 "Record the Gross Weight by weighing the Output Waste Container after it is released to be moved to its staging area, in Section 1 of Attachment 2."					
7c. Actual Condition: The container scale and the calibrated test weight were not listed on the M&TE list. This subsequently caused the weight listed on the attachment 2 of CCP-TP-113 to be invalid.					
7d. Have the CCP HOLD TAGS associated with this NCR been applied? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO If no is checked, explain:					
8. NCR Originator: Anthony Harley  5-28-14 printed name signature date					
9. Does the identified condition have the potential to impact AK? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> INDETERMINATE If YES or INDETERMINATE, enter Trend Code L in Block 10.					
10. Trend Code: A			11. Responsible Manager: Andrew Stallings		
12. Significant Condition? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO (If Yes, enter WIPP Form No.): WF-14-145			13. Recurring Condition? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO (If Yes, list NCRs and WIPP Forms):		
14. QA Engineer or QA Designee validation: LaTravia Harmon  5-28-14 printed name signature date					

COPY

Attachment 1 – CCP Nonconformance Report (NCR) (Continued)

NCR No. NCR-ORNL- 0702 -14 Revision 0		
INTERIM DISPOSITION		
15a. Interim Disposition (Check Only One):		
<input checked="" type="checkbox"/> N/A (See Final Disposition)	<input type="checkbox"/> Hold	<input type="checkbox"/> Conditionally Accept
<input type="checkbox"/> Sort	<input type="checkbox"/> Reinspect or Retest	<input type="checkbox"/> Conditionally Use
<input type="checkbox"/> Remediate		
15b. Instructions for Completion of the Interim Disposition:		
INTERIM DISPOSITION APPROVALS		
16a. Responsible Manager or Individual:		
_____	_____	_____
printed name	signature	date
16b. QA Engineer or QA Designee:		
_____	_____	_____
printed name	signature	date
Additional Approval:		
_____	_____	_____
printed name	signature	date
Additional Approval:		
_____	_____	_____
printed name	signature	date
COMPLETION OF INTERIM DISPOSITION		
17. Interim Disposition Complete – Responsible Manager or Individual:		
_____	_____	_____
printed name	signature	date
18. Interim Disposition Verified – QA Engineer:		
_____	_____	_____
printed name	signature	date

COPY

Attachment 1 – CCP Nonconformance Report (NCR) (Continued)

NCR No. NCR-ORNL- 0702 -14 Revision 0		
FINAL DISPOSITION		
19. Final Disposition (Check Only One: Use-As-Is, Repair, Reject, Rework, or Scrap): <input type="checkbox"/> Use-As-Is <input type="checkbox"/> Repair		
19a. Technical Justification – Required for <u>Use-As-Is</u> or <u>Repair</u> dispositions. [<input checked="" type="checkbox"/> N/A for Reject, Rework, or Scrap]		
<hr/>		
<input type="checkbox"/> Reject <input checked="" type="checkbox"/> Rework <input type="checkbox"/> Scrap		
19b. Instructions for Completion – Required for <u>Reject</u> , <u>Repair</u> , <u>Rework</u> , or <u>Scrap</u> [<input type="checkbox"/> N/A for Use-As-Is]		
1. Ensure the container scale and check weight is added to the current M&TE listing. 2. Re-weight container.		
<hr/>		
19c. Corrective Actions (Actions to Prevent Recurrence – For <u>Repair</u> or <u>Rework</u> , if applicable. [<input checked="" type="checkbox"/> N/A if not applicable, and for Use-As-Is, Reject, and Scrap]		
FINAL DISPOSITION APPROVALS		
20. Responsible Manager or Individual:		
Andrew Stallings <small>printed name</small>	 <small>signature</small>	5/28/14 <small>date</small>
21. QA Engineer or QA Designee:		
LaTravia Harmon <small>printed name</small>	 <small>signature</small>	5/28/14 <small>date</small>
Additional Approval:		
_____	_____	_____
<small>printed name</small>	<small>signature</small>	<small>date</small>
Additional Approval:		
_____	_____	_____
<small>printed name</small>	<small>signature</small>	<small>date</small>
CLOSURE		
22. Final Disposition Complete - Responsible Manager or Individual:		
_____	_____	_____
<small>printed name</small>	<small>signature</small>	<small>date</small>
23. Attachments:		
24a. HOLD TAG removal has been verified and reconciled for all nonconforming items on the NCR: <input type="checkbox"/>		
24b. If HOLD TAG is not applicable, check: <input type="checkbox"/> and explain:		
25. Final Disposition Verified – NCR Closed QA Engineer:		
_____	_____	_____
<small>printed name</small>	<small>signature</small>	<small>date</small>

COPY

DIVIDER

PAGE

Attachment 1 – CCP SPM Visual Examination Project Level Validation Checklist and Summary

BDR Number: <u>ORVECH0102</u>		Examination Date(s): <u>05/28/2014</u>		
Description of Criteria Reviewed	Criteria Met?			Comments/Qualifiers
	YES	NO	NA	
1. Is the completed, signed and dated Independent Technical Reviewer Checklist included in the BDR, and the independent technical reviewer was not involved in the generation or recording of the data under review? Reference Source: CCP-PO-001, C3-4	X			
2. Does the BDR contain all items addressed in the BDR Table of Contents? Reference Source: CCP-PO-001, C3-4	X			
3. Does the BDR include a listing of all container numbers in the batch? Reference Source: CCP-PO-001, C3-4	X			
4. List all containers that have met QAOs. Reference Source: CCP-PO-001, C3-4				Container Numbers: X10C9311113A1
5. Is the current implementing procedure and revision number included in the BDR? Reference Source: CCP-PO-001, Table C3-3	X			
6. Is the BDR date included? Reference Source: CCP-PO-001, Table C3-3	X			
7. Is there a reference to or copy of any associated NCRs (if any) in the BDR? Reference Source: CCP-PO-001, Table C3-3	X			NCR-ORNL-0159-14
8. Are there 20 or fewer containers in the batch? Reference Source: CCP-PO-001 C3-4	X			
9. Are the data properly reported (i.e., data are reported in correct units and with correct significant figures). Reference Source: CCP-PO-001 C3-4	X			
10. Is there evidence of verification that the physical form matches the Waste Matrix Code? Reference Source: CCP-PO-001, Table C3-3	X			
11. Is there evidence of verification that the physical form matches the waste stream description? Reference Source: CCP-PO-001, Table C3-3	X			
12. Are prohibited items absent? Reference Source: CCP-PO-001, Table C3-3	X			

NTPC RECORDS ORIGINAL
DATE RECD 10-25-14 GCL

Attachment 1 – CCP SPM Visual Examination Project Level Validation Checklist and Summary (Continued)

BDR Number: <u>ORVECH0102</u>		Examination Date(s): <u>05/28/2014</u>		
Description of Criteria Reviewed	Criteria Met?			Comments/Qualifiers
	YES	NO	NA	
13. Does observable liquid, if present, meet the criteria of the TSDF-WAC? Reference Source: CCP-PO-001, C-1			X	No observable liquid.
14. Were discrepancies between the Visual Examination operator and the ITR with regards to identification of waste matrix code, liquids in excess of the TSDF-WAC, or compressed gases reconciled? NA if no discrepancies. Reference Source: CCP-PO-001, C3-2			X	
15. Are the training requirements met for the VE Expert and VE Operators who have signed the data forms? Reference Source: CCP-PO-001, C3-8	X			
16. Is evidence of a satisfactory audio/video test included in the BDR? NA [not applicable] for VE Method for Newly Generated Waste. Reference Source: CCP-PO-001, C1-2			X	
17. If the VE was not recorded using audio/video media, does the data sheet contain the signature of two qualified operators who observed for themselves the waste being placed into the container? NA if audio/video used. Reference Source: CCP-PO-001, C1-2	X			
18. Are the weights/estimated weights for the 12 waste material parameters reported in kilograms (kg)? Reference Source: CCP Technical Procedures	X			
19. Are the descriptions for each waste material parameter included in the BDR? Reference Source: CCP-PO-001, C1-2	X			
20. Is the gross weight reported (in kg) for each container included in the BDR? Reference Source: CCP Technical Procedures	X			
21. Is the number of layers of confinement recorded? Reference Source: CCP-PO-001, C1-2	X			
22. Is sufficient information included in the BDR to determine the packaging configuration? Reference Source: CCP-PO-001, C1-2	X			

Attachment 1 – CCP SPM Visual Examination Project Level Validation Checklist and Summary (Continued)

BDR Number: <u>ORVECH0102</u>		Examination Date(s): <u>05/28/2014</u>		
Description of Criteria Reviewed	Criteria Met?			Comments/Qualifiers
	YES	NO	NA	
23. Is the type and number of filters recorded? Reference Source: CCP-PO-001, CCP Technical Procedures	X			
24. Is the size of the rigid liner vent hole recorded? NA if no liner lid. Reference Source: CCP-PO-001, CCP Technical Procedures			X	
25. For Los Alamos National Laboratory (LANL) Sealed Sources, does the characterized waste container meet the definition of sealed sources per Title 10 Code of Federal Regulations (CFR) 30.4 and Title 10 CFR 835.2 (effective January 1, 2004) evidence of which is assembled as part of AK documentation? Reference Source: CCP Technical Procedures			X	Not a LANL Sealed Source.
26. For LANL Sealed Sources, are sealed sources the only non-packaging items in the waste container? Reference Source: CCP-TP-069, 4.1.4			X	Not a LANL Sealed Source.
27. For LANL Sealed Sources, are the sealed sources a U.S. Department of Transportation (DOT) Special Form Class 7 (Radioactive Material) per Title 49 CFR 34.27 (effective January 1, 2004) and the certification of which is assembled as part of the AK documentation? Reference Source: CCP Technical Procedures			X	Not a LANL Sealed Source.
28. For LANL Sealed Sources, is the integrity of each sealed source validated by documented contamination survey results to meet the requirements of Title 10 CFR 34.27 (effective January 1, 2004), and assembled as part of AK documentation? Reference Source: CCP Technical Procedures			X	Not a LANL Sealed Source.

Attachment 1 – CCP SPM Visual Examination Project Level Validation Checklist and Summary (Continued)

BDR Number: <u>ORVECH0102</u>		Examination Date(s): <u>05/28/2014</u>		
Description of Criteria Reviewed	Criteria Met?			Comments/Qualifiers
	YES	NO	NA	
29. For LANL Sealed Sources, is each sealed source a rigid sealed container less than or equal to 4 L in size or in a rigid sealed container less than or equal to 4 L? Reference Source: CCP Technical Procedures			X	Not a LANL Sealed Source.
30. For LANL Sealed Sources, AK documentation does not indicate the use of volatile organic compounds (VOCs) or VOC-bearing materials as constituents of sealed sources? Reference Source: CCP Technical Procedures			X	Not a LANL Sealed Source.
31. For LANL Sealed Sources, the outer casing of each sealed source is of a non VOC-bearing material which is verified using the VE technique at the time of packaging? Reference Source: CCP Technical Procedures			X	Not a LANL Sealed Source.
Comments: NCR-ORNL-0159-14 attached as SPM-1, SPM-2, and SPM-3.				
The container QC checks were properly performed and meet the Quality Assurance Objectives (QAOs). Proper procedures were followed during data reduction and analysis. The batch is complete, acceptable, and includes all supporting data and documentation required by the QAPjP.				
Daniel Wade			06/25/2014	
SPM Printed Name		Signature 		Date

Checklist is to be re-signed only when a re-review is performed.

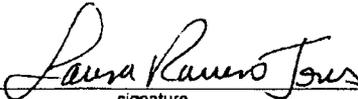
SPM Printed Name Signature Reason Date

SPM Printed Name Signature Reason Date

Attachment 1 – CCP Nonconformance Report (NCR)

CCP NONCONFORMANCE REPORT (NCR)

(Use NCR Continuation, Attachment 3, if necessary)

NCR No. NCR-ORNL-0159-14		Revision 0
1. Lot No., Heat No., or Serial No. (if applicable): N/A	2. Process (e.g., NDA, NDE, VE, Other): VE	3. Batch Data Report #(s): 1. ORVECH0101 2. ORVECH0102 3. ORVECH0103 4. ORVECH0104
4. Order/Work Order/Job Control Number (if applicable): N/A	5. PO # (if applicable): N/A	Container #(s): 1. X10C9311429D1 2. X10C9311113A1 3. X10C9311031A1, X10C9312842A1 4. X10CSATN03195A1
	6. Supplier (if applicable): N/A	
DESCRIPTION OF NONCONFORMANCE		
7a. NCR Description: <input type="checkbox"/> < 100 nCi/g <input type="checkbox"/> Prohibited Item <input type="checkbox"/> E-Flag <input type="checkbox"/> Receipt Inspection <input type="checkbox"/> Transportation <input type="checkbox"/> WWIS/WDS <input checked="" type="checkbox"/> Other		
7b. Requirement(s) (Enter Implementing Procedure No., Revision, Section No., & Quoted Text): CCP-TP-113, CCP Standard Contact-Handled Waste Visual Examination, Rev. 18 Section 4.3.2 [D] "Perform the following, AND record the applicable data for the Output Waste Container in Section 1 of Attachment 2. IF a rigid liner is present, THEN record YES, the Type of Liner, and Thickness."		
7c. Actual Condition: On Attachment 2-CCP Waste Visual Examination Data Form, the Operator did not record the Thickness of the rigid liner.		
7d. Have the CCP HOLD TAGS associated with this NCR been applied? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO If no is checked, explain: 06/19/14 LRS		
8. NCR Originator: Daniel Wade  06/18/2014 printed name signature date		
9. Does the identified condition have the potential to impact AK? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> INDETERMINATE If YES or INDETERMINATE, enter Trend Code L in Block 10.		
10. Trend Code: A	11. Responsible Manager: Beverly Schrock	
12. Significant Condition? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO (If Yes, enter WIPP Form No.):	13. Recurring Condition? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO (If Yes, list NCRs and WIPP Forms):	
14. QA Engineer or QA Designee validation: Laura R. Jones  06/18/14 printed name signature date		

SPM-1
JW 6/25/14

Attachment 1 – CCP Nonconformance Report (NCR) (Continued)

NCR No. <u>NCR-ORNL-0159-14</u> Revision <u>0</u>		
INTERIM DISPOSITION		
15a. Interim Disposition (Check Only One):		
<input checked="" type="checkbox"/> N/A (See Final Disposition)	<input type="checkbox"/> Hold	<input type="checkbox"/> Conditionally Accept
<input type="checkbox"/> Sort	<input type="checkbox"/> Reinspect or Retest	<input type="checkbox"/> Conditionally Use
<input type="checkbox"/> Remediate		
15b. Instructions for Completion of the Interim Disposition:		
INTERIM DISPOSITION APPROVALS		
16a. Responsible Manager or Individual:		
_____	_____	_____
printed name	signature	date
16b. QA Engineer or QA Designee:		
_____	_____	_____
printed name	signature	date
Additional Approval:		
_____	_____	_____
printed name	signature	date
Additional Approval:		
_____	_____	_____
printed name	signature	date
COMPLETION OF INTERIM DISPOSITION		
17. Interim Disposition Complete – Responsible Manager or Individual:		
_____	_____	_____
printed name	signature	date
18. Interim Disposition Verified – QA Engineer:		
_____	_____	_____
printed name	signature	date

SPM-2
BW 6/25/14

Attachment 1 – CCP Nonconformance Report (NCR) (Continued)

NCR No. NCR-ORNL-0159-14			Revision 0		
FINAL DISPOSITION					
19. Final Disposition (Check Only One: Use-As-Is, Repair, Reject, Rework, or Scrap): <input type="checkbox"/> Use-As-Is <input type="checkbox"/> Repair					
19a. Technical Justification – Required for <u>Use-As-Is</u> or <u>Repair</u> dispositions. [<input checked="" type="checkbox"/> N/A for Reject, Rework, or Scrap]					
<hr/>					
<input type="checkbox"/> Reject <input checked="" type="checkbox"/> Rework <input type="checkbox"/> Scrap					
19b. Instructions for Completion – Required for <u>Reject</u> , <u>Repair</u> , <u>Rework</u> , or <u>Scrap</u> [<input type="checkbox"/> N/A for Use-As-Is]					
1.) VE-Operator, make needed corrections. 2.) VE-ITR, review. 3.) SPM review.					
<hr/>					
19c. Corrective Actions (Actions to Prevent Recurrence – For <u>Repair</u> or <u>Rework</u> , if applicable. [<input checked="" type="checkbox"/> N/A if not applicable, and for Use-As-Is, Reject, and Scrap]					
FINAL DISPOSITION APPROVALS					
20. Responsible Manager or Individual:					
_____		Beverly Schrock		6/18/14	
printed name		signature		date	
21. QA Engineer or QA Designee:					
_____		Laura R. Jones		6/18/2014	
printed name		signature		date	
Additional Approval:					
_____		_____		_____	
printed name		signature		date	
Additional Approval:					
_____		_____		_____	
printed name		signature		date	
CLOSURE					
22. Final Disposition Complete - Responsible Manager or Individual:					
_____		_____		_____	
printed name		signature		date	
23. Attachments: 1- Email Documenting Reportability. 2- Hold tag information.					
24a. HOLD TAG removal has been verified and reconciled for all nonconforming items on the NCR: <input type="checkbox"/>					
24b. If HOLD TAG is not applicable, check: <input type="checkbox"/> and explain:					
25. Final Disposition Verified – NCR Closed QA Engineer:					
_____		_____		_____	
printed name		signature		date	

SPM-3
Dw 6/25/14

Attachment 5 – CCP Waste VE Batch Data Report Cover Sheet

Batch Data Report No.: ORVECH0102

Examination Date: 5-28-14

1	X10C9311113A1
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	

Independent Technical Reviewer:
Derek Matheny Derek Matheny 6/3/14
Print Name Signature Date

Derek Matheny 6/19/14
Derek Matheny 6/25/14

Attachment 4 – CCP Waste VE Batch Data Report Table of Contents

Batch Data Report No.: ORVECH0102

Examination Date: 5-28-14

Item	Description	Page No.
1	CCP Waste VE Batch Data Report Cover Sheet	1
2	CCP Waste VE Batch Data Report Table of Contents	2
3	CCP Waste Visual Examination General Information Form	3
4	CCP Waste Visual Examination Data Forms	4
5	CCP Waste VE Independent Technical Reviewer Checklist	9
6	Copy of NCRs (N/A, If Not Applicable)	N/A
7	Field Records (N/A, If Not Applicable)	N/A

Attachment 2 – CCP Waste Visual Examination Data Form

Page 1 of 5

Batch Data Report No.: ORVECHO102

Input Waste Container ID, as applicable: <u>X1DC9311113A</u>	
Output Waste Container ID: <u>X1DC9311113A1</u>	Waste Stream ID: <u>OR-ISTP-CH-HET</u>
Container Type: <u>55 Gallon</u>	TRUCON Code: <u>OR 125/225</u> Waste Matrix Code: <u>SS400</u>
Audio/Video Media Recording Number: <input checked="" type="checkbox"/> N/A	
Waste Container Weights: Tare Wt: <u>33.2</u> kg. Gross Wt: <u>67.4</u> kg.	
Rigid Liner Present? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES Type of Liner: <input type="checkbox"/> Lead <input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Fiberboard <input type="checkbox"/> Other: Thickness: <input type="checkbox"/> 30-mil <input checked="" type="checkbox"/> 90-mil <input type="checkbox"/> 110-mil <input type="checkbox"/> 125-mil <u>CW 06/19/14</u>	Rigid Liner Lid Present? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES Rigid Liner Lid is Vented (>0.3 in) or Filtered? <input type="checkbox"/> NO <input type="checkbox"/> YES <input checked="" type="checkbox"/> N/A <input type="checkbox"/> Vented: Hole Size: <input checked="" type="checkbox"/> N/A <input type="checkbox"/> Filtered: Model No.: <input checked="" type="checkbox"/> N/A Serial No.: <input checked="" type="checkbox"/> N/A
Bag Liner Present? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES	Volume Utilization Percentage: <u>100</u> %
Does the physical form of the waste match the Waste Stream Description (i.e., Homogeneous Solids, Soil/Gravel, or Debris Waste [including uncategorized metals])? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES	
Does the physical form of the waste match the Waste Matrix Code? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES	
Closure Method: <u>TT</u> Number of Layers of Confinement: <u>1</u>	
Filter Torque Wrench Serial/ID No.: <u>1208070374/WIPP126</u> Calibration Due Date: <u>7-18-14</u> Filter: Model No.: <u>00234</u> Serial No.: <u>0132</u> Torque Value: <u>72 in lbs</u>	Lid Ring/Bolt Torque Wrench Serial/ID No.: <u>WIPP149</u> Calibration Due Date: <u>8-12-14</u> Lid Ring/Bolt Torque Value: <u>60 ft lbs</u>
Is total dose rate greater than 200mrem/hr? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES	
NCR(s) associated with the output container? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES NCR No.: <u>N/A</u> NCR No.: <u>N/A</u>	
Comments: <u>N/A</u>	

Attachment 2 – CCP Waste Visual Examination Data Form (continued)

Page 2 of 5

Batch Data Report No.: ORVECHO102

Date: 5-28-14

Package and Package TID Number (as applicable)	Waste Description	WMP [Table 3]	Weight (kg) [Table 4, *]	Weighing Code(s) [Table 4*]
N/A	Masking Tape, Fiber board, Paper, absorbent Pnd, Paper Towels	C	9.0	E
N/A	Plastic lids, Plastic Bottles, Plastic Tubing Flexi Glass	500-19 PW	1.2	E
N/A	Copper Wire, Copper Scrap	OM	2.0	E
N/A	Metal Fittings, Metal Plate metal Electrical Box, Scrap Metal	IM	20.0	E
N/A	Rubber Gloves	R	0.5	E
N/A	Broken Glass, Glass Bottles	OI	1.0	E
N/A	Aluminum Foil	AM	0.5	E

N/A
VEO 1: Print Name

N/A
Signature

N/A
Date

N/A
VEO 2: Print Name

N/A
Signature

N/A
Date

Signatures annotate the absence of prohibited items.

Output Waste Container ID: X100931113A1

TID Removed: N/A

TID Applied: MP85W31352

N/A
VEO 1: Print Name

N/A
Signature

N/A
Date

N/A
VEO 2: Print Name

N/A
Signature

N/A
Date

Signatures of VEO's verifying the loading of the Output Waste Container.

Attachment 2 – CCP Waste Visual Examination Data Form (continued)

Page 3 of 5

Batch Data Report No.: ORVECH0102

Output Waste Container ID: X10C931113A1

Section 3: Packaging Material and Waste Material Parameters	
Packaging Material:	Estimated Weight (kg)
Steel (ST):	27.8
Plastics (PP):	1.0
Others: (C)	4.4
Total Packaging Weight:	33.2
Waste Material Parameter:	Estimated Weight (kg)
Iron-based Metal/Alloys (IM):	20.0
Aluminum-based Metals/Alloys (AM):	0.5
Other Metals (OM):	2.0
Other Inorganic Materials (OI):	1.0
Cellulosics (C):	9.0
Rubber (R):	0.5
Plastics (waste materials) (PW):	1.2
Organic Matrix (OR):	N/A
Inorganic Matrix (IN):	N/A
Soils (S):	N/A
Total WMP Weight:	34.2

Attachment 2 – CCP Waste Visual Examination Data Form (continued)

Batch Data Report No.: DRVECH0102 Output Waste Container ID: X100931113A1

	Yes	No
Is there any observable liquid in internal containers, that is more than 60 milliliters or 3 percent by volume, whichever is greater?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there detectable observable liquid in outermost containers with an EPA Hazardous Waste Number of U134?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there an indication of wastes containing explosives or compressed gases?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there PCB liquids present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are there sealed containers GREATER than 4 liters?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are there indications of inadequate protection (blocked or braced) for heavy and/or sharp objects?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Attachment 2 – CCP Waste Visual Examination Data Form (continued)

Page 5 of 5

Batch Data Report No.: ORVECH062 Output Waste Container ID: X10C931113A1

Comments: <u>N/A</u>		
Visual Examination Operator 1: <u>Jason Cote</u> Print Name	<u>[Signature]</u> Signature	<u>5/28/14</u> Date <u>6/19/14</u>
Visual Examination Operator 2: <u>Chuck Wallace</u> Print Name	<u>[Signature]</u> Signature	<u>05/28/14</u> Date <u>06/19/14</u>

Attachment 3 – CCP Waste VE Independent Technical Reviewer Checklist

Batch Data Report No.: ORV&CH 0102

Page 1 of 2

1. Data generation and reduction were conducted in a technically correct manner in accordance with the methods used?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
2. Was the correct revision of operating procedure used?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
3. Are the waste material parameters (WMPs) entered correctly?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
4. Verify the hand calculations on the VE Data Form for the following:			
a. WMP weight totals	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
b. Weight totals	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
c. Summed volume of observable liquid, as necessary	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> N/A
d. The total of the WMP weights is within 5% of the net weight of waste of the Output Waste Container obtained from subtracting the tare weight from the gross weight.	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
5. Is the data reported in the correct units and correct number of significant figures?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
6. Has the data been reviewed for transcription errors?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
7. Does the Testing Batch Report include VE for up to 20 containers?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
8. BDR contents are complete and match the CCP Waste VE Batch Data Report Table of Contents?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
9. Is all the data signed and dated in reproducible ink and by the individual(s) generating it?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
10. Is all data recorded clearly, legibly, and accurately?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
11. All changes to original data lined out, initialed and dated by the individual making the changes?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
12. Were data changes made by the individual who originally collected the data or an equally qualified individual?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
13. Did the physical form of the waste match the Waste Matrix Code and Waste Stream Description?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A

Attachment 3 – CCP Waste VE Independent Technical Reviewer Checklist (continued)

Batch Data Report No.: ORVECH0102

Page 2 of 2

14. Was the waste in the Output Waste Container(s) examined for prohibited items?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
15. Is there an adequate written description of the contents of each item?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
16. Were the scale(s) in calibration prior to the VE and documented correctly?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
17. Were the scale checks SAT prior to the VE and documented correctly?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
18. Was the audio/video media recording properly prepared and labeled for each waste container?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> N/A
19. Was the audio/video media recording check performed satisfactorily prior to the VE?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> N/A
20. Precision: Was precision maintained by reconciling any discrepancies between the operator and the independent technical reviewer with regard to identification of waste matrix code, liquids in excess of TSDf-WAC limits, and compressed gases?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
21. Accuracy: Was accuracy maintained by requiring operators to pass a comprehensive examination and demonstrate satisfactory performance in the presence of the VE expert during their initial qualification and subsequent requalification (operators on LOQI)?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
22. Completeness: Is there a completed VE data form for each waste container in the BDR?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
23. Were NCRs initiated as required?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input checked="" type="checkbox"/> N/A

DM 6/25/14

Comments: N/A

I have reviewed 100 percent of the container-specific and batch data in this report and find it acceptable.

Independent Technical Reviewer:
Derek Matheny Printed Name [Signature] Signature 6/3/14 Date

[Signature] 6/19/14
[Signature] 6/25/14

DIVIDER

PAGE

Attachment 1 – CCP SPM Visual Examination Project Level Validation Checklist and Summary

BDR Number: <u>ORVECH0103</u>		Examination Date(s): <u>05/29/2014</u>		
Description of Criteria Reviewed	Criteria Met?			Comments/Qualifiers
	YES	NO	NA	
1. Is the completed, signed and dated Independent Technical Reviewer Checklist included in the BDR, and the independent technical reviewer was not involved in the generation or recording of the data under review? Reference Source: CCP-PO-001, C3-4	X			
2. Does the BDR contain all items addressed in the BDR Table of Contents? Reference Source: CCP-PO-001, C3-4	X			
3. Does the BDR include a listing of all container numbers in the batch? Reference Source: CCP-PO-001, C3-4	X			
4. List all containers that have met QAOs. Reference Source: CCP-PO-001, C3-4				Container Numbers: X10C9311031A1 X10C9312842A1
5. Is the current implementing procedure and revision number included in the BDR? Reference Source: CCP-PO-001, Table C3-3	X			
6. Is the BDR date included? Reference Source: CCP-PO-001, Table C3-3	X			
7. Is there a reference to or copy of any associated NCRs (if any) in the BDR? Reference Source: CCP-PO-001, Table C3-3	X			NCR-ORNL-0159-14
8. Are there 20 or fewer containers in the batch? Reference Source: CCP-PO-001 C3-4	X			
9. Are the data properly reported (i.e., data are reported in correct units and with correct significant figures). Reference Source: CCP-PO-001 C3-4	X			
10. Is there evidence of verification that the physical form matches the Waste Matrix Code? Reference Source: CCP-PO-001, Table C3-3	X			
11. Is there evidence of verification that the physical form matches the waste stream description? Reference Source: CCP-PO-001, Table C3-3	X			
12. Are prohibited items absent? Reference Source: CCP-PO-001, Table C3-3	X			

Attachment 1 – CCP SPM Visual Examination Project Level Validation Checklist and Summary (Continued)

BDR Number: <u>ORVECH0103</u>		Examination Date(s): <u>05/29/2014</u>		
Description of Criteria Reviewed	Criteria Met?			Comments/Qualifiers
	YES	NO	NA	
13. Does observable liquid, if present, meet the criteria of the TSDF-WAC? Reference Source: CCP-PO-001, C-1			X	No observable liquid.
14. Were discrepancies between the Visual Examination operator and the ITR with regards to identification of waste matrix code, liquids in excess of the TSDF-WAC, or compressed gases reconciled? NA if no discrepancies. Reference Source: CCP-PO-001, C3-2			X	
15. Are the training requirements met for the VE Expert and VE Operators who have signed the data forms? Reference Source: CCP-PO-001, C3-8	X			
16. Is evidence of a satisfactory audio/video test included in the BDR? NA [not applicable] for VE Method for Newly Generated Waste. Reference Source: CCP-PO-001, C1-2			X	
17. If the VE was not recorded using audio/video media, does the data sheet contain the signature of two qualified operators who observed for themselves the waste being placed into the container? NA if audio/video used. Reference Source: CCP-PO-001, C1-2	X			
18. Are the weights/estimated weights for the 12 waste material parameters reported in kilograms (kg)? Reference Source: CCP Technical Procedures	X			
19. Are the descriptions for each waste material parameter included in the BDR? Reference Source: CCP-PO-001, C1-2	X			
20. Is the gross weight reported (in kg) for each container included in the BDR? Reference Source: CCP Technical Procedures	X			
21. Is the number of layers of confinement recorded? Reference Source: CCP-PO-001, C1-2	X			
22. Is sufficient information included in the BDR to determine the packaging configuration? Reference Source: CCP-PO-001, C1-2	X			

Attachment 1 – CCP SPM Visual Examination Project Level Validation Checklist and Summary (Continued)

BDR Number: <u>ORVECH0103</u>		Examination Date(s): <u>05/29/2014</u>		
Description of Criteria Reviewed	Criteria Met?			Comments/Qualifiers
	YES	NO	NA	
23. Is the type and number of filters recorded? Reference Source: CCP-PO-001, CCP Technical Procedures	X			
24. Is the size of the rigid liner vent hole recorded? NA if no liner lid. Reference Source: CCP-PO-001, CCP Technical Procedures			X	
25. For Los Alamos National Laboratory (LANL) Sealed Sources, does the characterized waste container meet the definition of sealed sources per Title 10 Code of Federal Regulations (CFR) 30.4 and Title 10 CFR 835.2 (effective January 1, 2004) evidence of which is assembled as part of AK documentation? Reference Source: CCP Technical Procedures			X	Not a LANL Sealed Source.
26. For LANL Sealed Sources, are sealed sources the only non-packaging items in the waste container? Reference Source: CCP-TP-069, 4.1.4			X	Not a LANL Sealed Source.
27. For LANL Sealed Sources, are the sealed sources a U.S. Department of Transportation (DOT) Special Form Class 7 (Radioactive Material) per Title 49 CFR 34.27 (effective January 1, 2004) and the certification of which is assembled as part of the AK documentation? Reference Source: CCP Technical Procedures			X	Not a LANL Sealed Source.
28. For LANL Sealed Sources, is the integrity of each sealed source validated by documented contamination survey results to meet the requirements of Title 10 CFR 34.27 (effective January 1, 2004), and assembled as part of AK documentation? Reference Source: CCP Technical Procedures			X	Not a LANL Sealed Source.

Attachment 1 – CCP SPM Visual Examination Project Level Validation Checklist and Summary (Continued)

BDR Number: <u>ORVECH0103</u>		Examination Date(s): <u>05/29/2014</u>		
Description of Criteria Reviewed	Criteria Met?			Comments/Qualifiers
	YES	NO	NA	
29. For LANL Sealed Sources, is each sealed source a rigid sealed container less than or equal to 4 L in size or in a rigid sealed container less than or equal to 4 L? Reference Source: CCP Technical Procedures			X	Not a LANL Sealed Source.
30. For LANL Sealed Sources, AK documentation does not indicate the use of volatile organic compounds (VOCs) or VOC-bearing materials as constituents of sealed sources? Reference Source: CCP Technical Procedures			X	Not a LANL Sealed Source.
31. For LANL Sealed Sources, the outer casing of each sealed source is of a non VOC-bearing material which is verified using the VE technique at the time of packaging? Reference Source: CCP Technical Procedures			X	Not a LANL Sealed Source.
Comments: NCR-ORNL-0159-14 attached as SPM-1, SPM-2, and SPM-3.				
The container QC checks were properly performed and meet the Quality Assurance Objectives (QAOs). Proper procedures were followed during data reduction and analysis. The batch is complete, acceptable, and includes all supporting data and documentation required by the QAPjP.				
Daniel Wade				06/25/2014
SPM Printed Name		Signature		Date

Checklist is to be re-signed only when a re-review is performed.

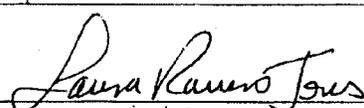
SPM Printed Name Signature Reason Date

SPM Printed Name Signature Reason Date

Attachment 1 – CCP Nonconformance Report (NCR)

CCP NONCONFORMANCE REPORT (NCR)

(Use NCR Continuation, Attachment 3, if necessary)

NCR No. NCR-ORNL-0159-14		Revision 0
1. Lot No., Heat No., or Serial No. (if applicable): N/A	2. Process (e.g., NDA, NDE, VE, Other): VE	3. Batch Data Report #(s): 1. ORVECH0101 2. ORVECH0102 3. ORVECH0103 4. ORVECH0104
4. Order/Work Order/Job Control Number (if applicable): N/A	5. PO # (if applicable): N/A	Container #(s): 1. X10C9311429D1 2. X10C9311113A1 3. X10C9311031A1, X10C9312842A1 4. X10CSATN03195A1
	6. Supplier (if applicable): N/A	
DESCRIPTION OF NONCONFORMANCE		
7a. NCR Description: <input type="checkbox"/> < 100 nCi/g <input type="checkbox"/> Prohibited Item <input type="checkbox"/> E-Flag <input type="checkbox"/> Receipt Inspection <input type="checkbox"/> Transportation <input type="checkbox"/> WWIS/WDS <input checked="" type="checkbox"/> Other		
7b. Requirement(s) (Enter Implementing Procedure No., Revision, Section No., & Quoted Text): CCP-TP-113, CCP Standard Contact-Handled Waste Visual Examination, Rev. 18 Section 4.3.2 [D] "Perform the following, AND record the applicable data for the Output Waste Container in Section 1 of Attachment 2. IF a rigid liner is present, THEN record YES, the Type of Liner, and Thickness."		
7c. Actual Condition: On Attachment 2-CCP Waste Visual Examination Data Form, the Operator did not record the Thickness of the rigid liner.		
7d. Have the CCP HOLD TAGS associated with this NCR been applied? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO If no is checked, explain: <p style="text-align: center;">06/19/14 LR</p>		
8. NCR Originator: Daniel Wade  06/18/2014 printed name signature date		
9. Does the identified condition have the potential to impact AK? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> INDETERMINATE If YES or INDETERMINATE, enter Trend Code L in Block 10.		
10. Trend Code: A	11. Responsible Manager: Beverly Schrock	
12. Significant Condition? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO (If Yes, enter WIPP Form No.):	13. Recurring Condition? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO (If Yes, list NCRs and WIPP Forms):	
14. QA Engineer or QA Designee validation: Laura R. Jones  06/18/14 printed name signature date		

SPM-1
RW 6/25/14

Attachment 1 – CCP Nonconformance Report (NCR) (Continued)

NCR No. <u>NCR-ORNL-0159-14</u> Revision <u>0</u>		
INTERIM DISPOSITION		
15a. Interim Disposition (Check Only One):		
<input checked="" type="checkbox"/> N/A (See Final Disposition)	<input type="checkbox"/> Hold	<input type="checkbox"/> Conditionally Accept
<input type="checkbox"/> Sort	<input type="checkbox"/> Reinspect or Retest	<input type="checkbox"/> Conditionally Use
<input type="checkbox"/> Remediate		
15b. Instructions for Completion of the Interim Disposition:		
INTERIM DISPOSITION APPROVALS		
16a. Responsible Manager or Individual:		
_____	_____	_____
printed name	signature	date
16b. QA Engineer or QA Designee:		
_____	_____	_____
printed name	signature	date
Additional Approval:		
_____	_____	_____
printed name	signature	date
Additional Approval:		
_____	_____	_____
printed name	signature	date
COMPLETION OF INTERIM DISPOSITION		
17. Interim Disposition Complete – Responsible Manager or Individual:		
_____	_____	_____
printed name	signature	date
18. Interim Disposition Verified – QA Engineer:		
_____	_____	_____
printed name	signature	date

SPM-2
PW 6/25/14

Attachment 1 – CCP Nonconformance Report (NCR) (Continued)

NCR No. NCR-ORNL-0159-14			Revision 0		
FINAL DISPOSITION					
19. Final Disposition (Check Only One: Use-As-Is, Repair, Reject, Rework, or Scrap): <input type="checkbox"/> Use-As-Is <input type="checkbox"/> Repair					
19a. Technical Justification – Required for <u>Use-As-Is</u> or <u>Repair</u> dispositions. [<input checked="" type="checkbox"/> N/A for Reject, Rework, or Scrap]					
<input type="checkbox"/> Reject <input checked="" type="checkbox"/> Rework <input type="checkbox"/> Scrap					
19b. Instructions for Completion – Required for <u>Reject</u> , <u>Repair</u> , <u>Rework</u> , or <u>Scrap</u> [<input type="checkbox"/> N/A for Use-As-Is]					
1.) VE-Operator, make needed corrections. 2.) VE-ITR, review. 3.) SPM review.					
19c. Corrective Actions (Actions to Prevent Recurrence – For <u>Repair</u> or <u>Rework</u> , if applicable. [<input checked="" type="checkbox"/> N/A if not applicable, and for Use-As-Is, Reject, and Scrap]					
FINAL DISPOSITION APPROVALS					
20. Responsible Manager or Individual:					
_____		Beverly Schrock		6/18/14	
printed name		signature		date	
21. QA Engineer or QA Designee:					
Laura R. Jones		Laura R. Jones		6/18/2014	
printed name		signature		date	
Additional Approval:					
_____		_____		_____	
printed name		signature		date	
Additional Approval:					
_____		_____		_____	
printed name		signature		date	
CLOSURE					
22. Final Disposition Complete - Responsible Manager or Individual:					
_____		_____		_____	
printed name		signature		date	
23. Attachments: 1. Email Documenting Reportability. 2. Hold tag information.					
24a. HOLD TAG removal has been verified and reconciled for all nonconforming items on the NCR: <input type="checkbox"/>					
24b. If HOLD TAG is not applicable, check: <input type="checkbox"/> and explain:					
25. Final Disposition Verified – NCR Closed QA Engineer:					
_____		_____		_____	
printed name		signature		date	

SPM-3
RW 6/25/14

Attachment 4 – CCP Waste VE Batch Data Report Table of Contents

Batch Data Report No.: DRVECH0103

Examination Date: 05/29/14

Item	Description	Page No.
1	CCP Waste VE Batch Data Report Cover Sheet	1
2	CCP Waste VE Batch Data Report Table of Contents	2
3	CCP Waste Visual Examination General Information Form	3
4	CCP Waste Visual Examination Data Forms	4
5	CCP Waste VE Independent Technical Reviewer Checklist	14
6	Copy of NCRs (N/A, If Not Applicable)	N/A
7	Field Records (N/A, If Not Applicable)	N/A

Attachment 1 – CCP Waste Visual Examination General Information Form

Batch Data Report No.: DRVECH0103

<input checked="" type="checkbox"/> VE for Previously Packaged Waste <input type="checkbox"/> VE for Newly Generated Waste	
<input type="checkbox"/> Method 1 <input checked="" type="checkbox"/> Method 2	
Site ID: <u>OR</u>	
Examination Date: <u>05/29/14</u>	
Procedure No.: <u>CCP-TP-113</u> Revision No.: <u>18</u>	
Camera/Audio/Video Media Recording Check: <input checked="" type="checkbox"/> N/A <input type="checkbox"/> SAT	
VE Scale Information: <input checked="" type="checkbox"/> N/A	Serial/ID Number: Calibration Due Date: Operational Check: <input type="checkbox"/> SAT <input type="checkbox"/> UNSAT
Test Weight Information Test Weight Total: kg. Tray Weight: kg.	Serial/ID Number: Calibration Due Date: Serial/ID Number: Calibration Due Date: Serial/ID Number: Calibration Due Date:
Container Scale Information:	Serial/ID Number: <u>WIPP 002</u> Calibration Due Date: <u>06/18/14</u> Operational Check: <input checked="" type="checkbox"/> SAT <input type="checkbox"/> UNSAT
Comments: <p style="text-align: center;">The VEE has determined the use of ^{EW} 05/29/14 the VE scale is not necessary CW 05/29/14 The VEE has determined that the VE Scales shall not be used.</p>	
Visual Examination Operator 1: <u>Chuck Wallace</u> Print Name	<u>Chuck Wallace</u> Signature
	<u>05/29/14</u> Date
Visual Examination Operator 2: <u>Derek Matheny</u> Print Name	<u>Derek Matheny</u> Signature
	<u>6/2/14</u> Date

Batch Data Report No.: ORVECH0103

Section 1: Output Waste Container Data	
Input Waste Container ID, as applicable: <u>X10C9311031A</u>	
Output Waste Container ID: <u>X10C9311031A1</u>	Waste Stream ID: <u>OR-DSTP-CH-HET</u>
Container Type: <u>55 Gallon</u>	TRUCON Code: <u>OR 125/225</u> Waste Matrix Code: <u>S5400</u>
Audio/Video Media Recording Number: <input checked="" type="checkbox"/> N/A	
Waste Container Weights: Tare Wt: <u>33.2</u> kg. Gross Wt: <u>69.8</u> kg.	
Rigid Liner Present? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES Type of Liner: <input type="checkbox"/> Lead <input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Fiberboard <input type="checkbox"/> Other: Thickness: <input type="checkbox"/> 30-mil <input checked="" type="checkbox"/> 90-mil <input type="checkbox"/> 110-mil <input type="checkbox"/> 125-mil <u>CW 06/19/14</u>	Rigid Liner Lid Present? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES Rigid Liner Lid is Vented (>0.3 in.) or Filtered? <input type="checkbox"/> NO <input type="checkbox"/> YES <input checked="" type="checkbox"/> N/A <input type="checkbox"/> Vented: Hole Size: <input checked="" type="checkbox"/> N/A <input type="checkbox"/> Filtered: Model No.: <input checked="" type="checkbox"/> N/A Serial No.: <input checked="" type="checkbox"/> N/A
Bag Liner Present? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES	Volume Utilization Percentage: <u>100</u> %
Does the physical form of the waste match the Waste Stream Description (i.e., Homogeneous Solids, Soil/Gravel, or Debris Waste [including uncategorized metals])? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES	
Does the physical form of the waste match the Waste Matrix Code? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES	
Closure Method: <u>TT</u> Number of Layers of Confinement: <u>1</u>	
Filter Torque Wrench Serial/ID No.: <u>WI PP 126</u> Calibration Due Date: <u>07/18/14</u> Filter: Model No.: <u>UT 9424X 00234</u> Serial No.: <u>0140</u> Torque Value: <u>72 in. lbs.</u>	Lid Ring/Bolt Torque Wrench Serial/ID No.: <u>WI PP 149</u> Calibration Due Date: <u>08/12/14</u> Lid Ring/Bolt Torque Value: <u>60 Ft. lbs.</u>
Is total dose rate greater than 200mrem/hr? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES	
NCR(s) associated with the output container? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES NCR No.: <u>N/A</u> NCR No.: <u>N/A</u>	
Comments: <u>N/A</u>	

Attachment 2 – CCP Waste Visual Examination Data Form (continued) Page 2 of 5

Batch Data Report No.: ORVECH0103

Date: 05/29/14

Package and Package TID Number (as applicable)	Waste Description	WMP [Table 3]	Weight (kg) [Table 4, *]	Weighing Code(s) [Table 4*]
N/A	Fiberboard, Cotton Coveralls Paper, Paper Bag Absorbent Pad	(C)	7.6	E
N/A	Metal Sawblade, Metal Drum Metal Tools, Metal Lid	(IM)	15.0	E
N/A	Plastic Bags, Plastic Lids Electrical Cord, Vinyl Tape	(PW)	10.0	E
N/A	Broken Glass	(OI)	4.0	E
N/A	Rubber Boots Rubber Gloves	(R)	5.0	E
N/A	Lead Pigs Brass Bracket	(OM)	15.0	E
N/A CW 05/29/14				

N/A VEO 1: Print Name N/A Signature N/A Date
N/A VEO 2: Print Name N/A Signature N/A Date

Signatures annotate the absence of prohibited items.

Output Waste Container ID: X10C9311031A1

TID Removed: N/A TID Applied: MPB5W1 31225

N/A VEO 1: Print Name N/A Signature N/A Date
N/A VEO 2: Print Name N/A Signature N/A Date

Signatures of VEO's verifying the loading of the Output Waste Container.

Attachment 2 – CCP Waste Visual Examination Data Form (continued)

Page 3 of 5

Batch Data Report No.: ORVECH0103

Output Waste Container ID: X10C9311031A1

Packaging Material:	Estimated Weight (kg)
Steel (ST):	27.8
Plastics (PP):	1.0
Others: ^{EW 05/29/14} Fiberboard (c)	4.4
Total Packaging Weight:	33.2
Waste Material Parameter:	Estimated Weight (kg)
Iron-based Metal/Alloys (IM):	15.0
Aluminum-based Metals/Alloys (AM):	N/A
Other Metals (OM):	15.0
Other Inorganic Materials (OI):	4.0
Cellulosics (C):	7.6
Rubber (R):	5.0
Plastics (waste materials) (PW):	10.0
Organic Matrix (OR):	N/A
Inorganic Matrix (IN):	N/A
Soils (S):	N/A
Total WMP Weight:	56.6

Batch Data Report No.: DRVECHD103 Output Waste Container ID: X10c9311031A1

	Yes	No
Is there any observable liquid in internal containers, that is more than 60 milliliters or 3 percent by volume, whichever is greater?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there detectable observable liquid in outermost containers with an EPA Hazardous Waste Number of U134?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there an indication of wastes containing explosives or compressed gases?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there PCB liquids present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are there sealed containers GREATER than 4 liters?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are there indications of inadequate protection (blocked or braced) for heavy and/or sharp objects?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Attachment 2 – CCP Waste Visual Examination Data Form (continued) Page 5 of 5

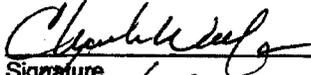
Batch Data Report No.: ORVECH0103 Output Waste Container ID: X10C9311031A1

Comments:

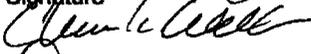
N/A

Visual Examination Operator 1:

Chuck Wallace
Print Name


Signature

05/27/14
Date



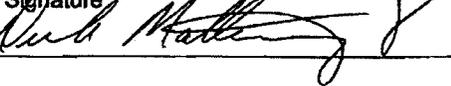
06/19/14

Visual Examination Operator 2:

Derek Matheny
Print Name


Signature

6/2/14
Date



6/19/14

Batch Data Report No.: ORVECH0103

Input Waste Container ID, as applicable: <u>X10C9312842A</u>	
Output Waste Container ID: <u>X10C9312842A1</u>	Waste Stream ID: <u>OR-1STP-CH-HET</u>
Container Type: <u>55 Gallon</u>	TRUCON Code: <u>OR 125/235</u> Waste Matrix Code: <u>35400 DM wall</u>
Audio/Video Media Recording Number: <input checked="" type="checkbox"/> N/A	
Waste Container Weights: Tare Wt: <u>33.2</u> kg. Gross Wt: <u>74.4</u> kg.	
Rigid Liner Present? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES Type of Liner: <input type="checkbox"/> Lead <input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Fiberboard <input type="checkbox"/> Other: Thickness: <input type="checkbox"/> 30-mil <input checked="" type="checkbox"/> 90-mil <input type="checkbox"/> 110-mil <input type="checkbox"/> 125-mil <u>DM 6/19/14</u>	Rigid Liner Lid Present? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES Rigid Liner Lid is Vented (>0.3 in.) or Filtered? <input type="checkbox"/> NO <input type="checkbox"/> YES <input type="checkbox"/> N/A <input type="checkbox"/> Vented: Hole Size: <input checked="" type="checkbox"/> N/A <input type="checkbox"/> Filtered: Model No.: <input checked="" type="checkbox"/> N/A Serial No.: <input checked="" type="checkbox"/> N/A
Bag Liner Present? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES	Volume Utilization Percentage: <u>100</u> %
Does the physical form of the waste match the Waste Stream Description (i.e., Homogeneous Solids, Soil/Gravel, or Debris Waste [including uncategorized metals])? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES	
Does the physical form of the waste match the Waste Matrix Code? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES	
Closure Method: <u>TT</u> Number of Layers of Confinement: <u>1</u>	
Filter Torque Wrench Serial/ID No.: <u>WIPP 108</u> Calibration Due Date: <u>10/14/14</u> Filter: Model No.: <u>UT9424X00234</u> Serial No.: <u>0126</u> Torque Value: <u>72 inch lbs</u>	Lid Ring/Bolt Torque Wrench Serial/ID No.: <u>WIPP 149</u> <u>DM 5/29/14</u> <u>WIPP 149</u> Calibration Due Date: <u>08/12/14</u> Lid Ring/Bolt Torque Value: <u>60 ft. lbs.</u>
Is total dose rate greater than 200mrem/hr? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES	
NCR(s) associated with the output container? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES NCR No.: <u>NA</u> NCR No.: <u>NA</u>	
Comments: <u>NA</u>	

Attachment 2 – CCP Waste Visual Examination Data Form (continued)

Page 2 of 5

Batch Data Report No.: ^{ORVECH0103}
ORVECH03 DM 6/2/14

Date: 05/29/14

Package and Package TID Number (as applicable)	Waste Description	WMP [Table 3]	Weight (kg) [Table 4, *]	Weighing Code(s) [Table 4*]
N/A	Plastic Bags, Electrical Cords	PW	5.0	E
N/A	Metal Pieces	IM	4.0	E
N/A	No Char Absorbent	OR	2.0	E
N/A	Electrical Motor	OM	15.0	E
N/A	Rubber Boots Rubber Hoses	R	6.0	E
N/A	Leather Gloves, Fiberboard Liners Paper	C	7.0	E
N/A	Floor Sweepings (Glovebox) Glovebox Floor Sweepings ^{DM} 6/2/14	OI	2.2	E

N/A
VEO 1: Print Name

N/A
Signature

N/A
Date

N/A
VEO 2: Print Name

N/A
Signature

N/A
Date

Signatures annotate the absence of prohibited items.

Output Waste Container ID: X10C932842A1

TID Removed: N/A

TID Applied: MP85W 31213

N/A
VEO 1: Print Name

N/A
Signature

N/A
Date

N/A
VEO 2: Print Name

N/A
Signature

N/A
Date

Signatures of VEO's verifying the loading of the Output Waste Container.

Attachment 2 – CCP Waste Visual Examination Data Form (continued) Page 3 of 5

Batch Data Report No.: ORVECH0103Output Waste Container ID: X1DC9312842A1

Packaging Material:	Estimated Weight (kg)
Steel (ST):	27.8
Plastics (PP):	1.0
Others: (C)	4.4
Total Packaging Weight:	33.2
Waste Material Parameter:	Estimated Weight (kg)
Iron-based Metal/Alloys (IM):	4.0
Aluminum-based Metals/Alloys (AM):	NA
Other Metals (OM):	15.0
Other Inorganic Materials (OI):	2.2
Cellulosics (C):	7.0
Rubber (R):	6.0
Plastics (waste materials) (PW):	5.0
Organic Matrix (OR):	2.0 NA ^{DM} 6/2/14
Inorganic Matrix (IN):	NA
Soils (S):	NA
Total WMP Weight:	41.2

Attachment 2 – CCP Waste Visual Examination Data Form (continued) Page 4 of 5

Batch Data Report No.: ORVECH0103 Output Waste Container ID: X10C9312842A1

	Yes	No
Is there any observable liquid in internal containers, that is more than 60 milliliters or 3 percent by volume, whichever is greater?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there detectable observable liquid in outermost containers with an EPA Hazardous Waste Number of U134?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there an indication of wastes containing explosives or compressed gases?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there PCB liquids present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are there sealed containers GREATER than 4 liters?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are there indications of inadequate protection (blocked or braced) for heavy and/or sharp objects?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Attachment 2 – CCP Waste Visual Examination Data Form (continued)

Page 5 of 5

Batch Data Report No.: ORVECH-0123 Output Waste Container ID: X10C9312842A1

Comments:

N/A

Visual Examination Operator 1:

Derek Matheny
Print Name

Derek Matheny
Signature

5/29/14
Date
6/19/14

Visual Examination Operator 2:

Chuck Wallace
Print Name

Chuck Wallace
Signature

05/29/14
Date
06/19/14

Attachment 3 – CCP Waste VE Independent Technical Reviewer Checklist

Batch Data Report No.: DRVECH0103

Page 1 of 2

1. Data generation and reduction were conducted in a technically correct manner in accordance with the methods used?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
2. Was the correct revision of operating procedure used?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
3. Are the waste material parameters (WMPs) entered correctly?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
4. Verify the hand calculations on the VE Data Form for the following: a. WMP weight totals b. Weight totals c. Summed volume of observable liquid, as necessary d. The total of the WMP weights is within 5% of the net weight of waste of the Output Waste Container obtained from subtracting the tare weight from the gross weight.	<input type="checkbox"/> NO <input type="checkbox"/> NO <input type="checkbox"/> NO <input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES <input checked="" type="checkbox"/> YES <input type="checkbox"/> YES <input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A <input type="checkbox"/> N/A <input checked="" type="checkbox"/> N/A <input type="checkbox"/> N/A
5. Is the data reported in the correct units and correct number of significant figures?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
6. Has the data been reviewed for transcription errors?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> N/A
7. Does the Testing Batch Report include VE for up to 20 containers?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
8. BDR contents are complete and match the CCP Waste VE Batch Data Report Table of Contents?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
9. Is all the data signed and dated in reproducible ink and by the individual(s) generating it?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
10. Is all data recorded clearly, legibly, and accurately?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
11. All changes to original data lined out, initialed and dated by the individual making the changes?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
12. Were data changes made by the individual who originally collected the data or an equally qualified individual?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
13. Did the physical form of the waste match the Waste Matrix Code and Waste Stream Description?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A

Attachment 3 – CCP Waste VE Independent Technical Reviewer Checklist (continued)

Batch Data Report No.: DRVECH 0103

Page 2 of 2

14. Was the waste in the Output Waste Container(s) examined for prohibited items?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
15. Is there an adequate written description of the contents of each item?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
16. Were the scale(s) in calibration prior to the VE and documented correctly?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
17. Were the scale checks SAT prior to the VE and documented correctly?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
18. Was the audio/video media recording properly prepared and labeled for each waste container?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> N/A
19. Was the audio/video media recording check performed satisfactorily prior to the VE?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> N/A
20. Precision: Was precision maintained by reconciling any discrepancies between the operator and the independent technical reviewer with regard to identification of waste matrix code, liquids in excess of TSDf-WAC limits, and compressed gases?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
21. Accuracy: Was accuracy maintained by requiring operators to pass a comprehensive examination and demonstrate satisfactory performance in the presence of the VE expert during their initial qualification and subsequent requalification (operators on LOQI)?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
22. Completeness: Is there a completed VE data form for each waste container in the BDR?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
23. Were NCRs initiated as required?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input checked="" type="checkbox"/> N/A
Comments: <u>N/A</u>			
I have reviewed 100 percent of the container-specific and batch data in this report and find it acceptable.			
Independent Technical Reviewer:			
<u>Sason Cahn</u>	<u>[Signature]</u>	<u>6-3-14</u>	
Printed Name	Signature	Date	
	<u>[Signature]</u>	<u>6-19-14</u>	
	<u>[Signature]</u>	<u>6-25-14</u>	

SC
6-25-14

DIVIDER

PAGE

Attachment 1 – CCP SPM Visual Examination Project Level Validation Checklist and Summary

BDR Number: <u>ORVECH0104</u>		Examination Date(s): <u>06/02/2014</u>		
Description of Criteria Reviewed	Criteria Met?			Comments/Qualifiers
	YES	NO	NA	
1. Is the completed, signed and dated Independent Technical Reviewer Checklist included in the BDR, and the independent technical reviewer was not involved in the generation or recording of the data under review? Reference Source: CCP-PO-001, C3-4	X			
2. Does the BDR contain all items addressed in the BDR Table of Contents? Reference Source: CCP-PO-001, C3-4	X			
3. Does the BDR include a listing of all container numbers in the batch? Reference Source: CCP-PO-001, C3-4	X			
4. List all containers that have met QAOs. Reference Source: CCP-PO-001, C3-4				Container Numbers: X10CSATN03195A1
5. Is the current implementing procedure and revision number included in the BDR? Reference Source: CCP-PO-001, Table C3-3	X			
6. Is the BDR date included? Reference Source: CCP-PO-001, Table C3-3	X			
7. Is there a reference to or copy of any associated NCRs (if any) in the BDR? Reference Source: CCP-PO-001, Table C3-3	X			NCR-ORNL-0159-14
8. Are there 20 or fewer containers in the batch? Reference Source: CCP-PO-001 C3-4	X			
9. Are the data properly reported (i.e., data are reported in correct units and with correct significant figures). Reference Source: CCP-PO-001 C3-4	X			
10. Is there evidence of verification that the physical form matches the Waste Matrix Code? Reference Source: CCP-PO-001, Table C3-3	X			
11. Is there evidence of verification that the physical form matches the waste stream description? Reference Source: CCP-PO-001, Table C3-3	X			
12. Are prohibited items absent? Reference Source: CCP-PO-001, Table C3-3	X			

Attachment 1 – CCP SPM Visual Examination Project Level Validation Checklist and Summary (Continued)

BDR Number: <u>ORVECH0104</u>		Examination Date(s): <u>06/02/2014</u>		
Description of Criteria Reviewed	Criteria Met?			Comments/Qualifiers
	YES	NO	NA	
13. Does observable liquid, if present, meet the criteria of the TSDF-WAC? Reference Source: CCP-PO-001, C-1			X	No observable liquid.
14. Were discrepancies between the Visual Examination operator and the ITR with regards to identification of waste matrix code, liquids in excess of the TSDF-WAC, or compressed gases reconciled? NA if no discrepancies. Reference Source: CCP-PO-001, C3-2			X	
15. Are the training requirements met for the VE Expert and VE Operators who have signed the data forms? Reference Source: CCP-PO-001, C3-8	X			
16. Is evidence of a satisfactory audio/video test included in the BDR? NA [not applicable] for VE Method for Newly Generated Waste. Reference Source: CCP-PO-001, C1-2			X	
17. If the VE was not recorded using audio/video media, does the data sheet contain the signature of two qualified operators who observed for themselves the waste being placed into the container? NA if audio/video used. Reference Source: CCP-PO-001, C1-2	X			
18. Are the weights/estimated weights for the 12 waste material parameters reported in kilograms (kg)? Reference Source: CCP Technical Procedures	X			
19. Are the descriptions for each waste material parameter included in the BDR? Reference Source: CCP-PO-001, C1-2	X			
20. Is the gross weight reported (in kg) for each container included in the BDR? Reference Source: CCP Technical Procedures	X			
21. Is the number of layers of confinement recorded? Reference Source: CCP-PO-001, C1-2	X			
22. Is sufficient information included in the BDR to determine the packaging configuration? Reference Source: CCP-PO-001, C1-2	X			

Attachment 1 – CCP SPM Visual Examination Project Level Validation Checklist and Summary (Continued)

BDR Number: <u>ORVECH0104</u>		Examination Date(s): <u>06/02/2014</u>		
Description of Criteria Reviewed	Criteria Met?			Comments/Qualifiers
	YES	NO	NA	
23. Is the type and number of filters recorded? Reference Source: CCP-PO-001, CCP Technical Procedures	X			
24. Is the size of the rigid liner vent hole recorded? NA if no liner lid. Reference Source: CCP-PO-001, CCP Technical Procedures			X	
25. For Los Alamos National Laboratory (LANL) Sealed Sources, does the characterized waste container meet the definition of sealed sources per Title 10 Code of Federal Regulations (CFR) 30.4 and Title 10 CFR 835.2 (effective January 1, 2004) evidence of which is assembled as part of AK documentation? Reference Source: CCP Technical Procedures			X	Not a LANL Sealed Source.
26. For LANL Sealed Sources, are sealed sources the only non-packaging items in the waste container? Reference Source: CCP-TP-069, 4.1.4			X	Not a LANL Sealed Source.
27. For LANL Sealed Sources, are the sealed sources a U.S. Department of Transportation (DOT) Special Form Class 7 (Radioactive Material) per Title 49 CFR 34.27 (effective January 1, 2004) and the certification of which is assembled as part of the AK documentation? Reference Source: CCP Technical Procedures			X	Not a LANL Sealed Source.
28. For LANL Sealed Sources, is the integrity of each sealed source validated by documented contamination survey results to meet the requirements of Title 10 CFR 34.27 (effective January 1, 2004), and assembled as part of AK documentation? Reference Source: CCP Technical Procedures			X	Not a LANL Sealed Source.

Attachment 1 – CCP SPM Visual Examination Project Level Validation Checklist and Summary (Continued)

BDR Number: <u>ORVECH0104</u>		Examination Date(s): <u>06/02/2014</u>		
Description of Criteria Reviewed	Criteria Met?			Comments/Qualifiers
	YES	NO	NA	
29. For LANL Sealed Sources, is each sealed source a rigid sealed container less than or equal to 4 L in size or in a rigid sealed container less than or equal to 4 L? Reference Source: CCP Technical Procedures			X	Not a LANL Sealed Source.
30. For LANL Sealed Sources, AK documentation does not indicate the use of volatile organic compounds (VOCs) or VOC-bearing materials as constituents of sealed sources? Reference Source: CCP Technical Procedures			X	Not a LANL Sealed Source.
31. For LANL Sealed Sources, the outer casing of each sealed source is of a non VOC-bearing material which is verified using the VE technique at the time of packaging? Reference Source: CCP Technical Procedures			X	Not a LANL Sealed Source.
Comments: NCR-ORNL-0159-14 attached as SPM-1, SPM-2, and SPM-3.				
The container QC checks were properly performed and meet the Quality Assurance Objectives (QAOs). Proper procedures were followed during data reduction and analysis. The batch is complete, acceptable, and includes all supporting data and documentation required by the QAPjP.				
Daniel Wade				06/25/2014
SPM Printed Name		Signature		Date

Checklist is to be re-signed only when a re-review is performed.

SPM Printed Name Signature Reason Date

SPM Printed Name Signature Reason Date

Attachment 1 – CCP Nonconformance Report (NCR)

CCP NONCONFORMANCE REPORT (NCR)

(Use NCR Continuation, Attachment 3, if necessary)

NCR No. NCR-ORNL-0159-14		Revision 0
1. Lot No., Heat No., or Serial No. (if applicable): N/A	2. Process (e.g., NDA, NDE, VE, Other): VE	3. Batch Data Report #(s): 1. ORVECH0101 2. ORVECH0102 3. ORVECH0103 4. ORVECH0104
4. Order/Work Order/Job Control Number (if applicable): N/A	5. PO # (if applicable): N/A	Container #(s): 1. X10C9311429D1 2. X10C9311113A1 3. X10C9311031A1, X10C9312842A1 4. X10CSATN03195A1
	6. Supplier (if applicable): N/A	
DESCRIPTION OF NONCONFORMANCE		
7a. NCR Description: <input type="checkbox"/> < 100 nCi/g <input type="checkbox"/> Prohibited Item <input type="checkbox"/> E-Flag <input type="checkbox"/> Receipt Inspection <input type="checkbox"/> Transportation <input type="checkbox"/> WWIS/WDS <input checked="" type="checkbox"/> Other		
7b. Requirement(s) (Enter Implementing Procedure No., Revision, Section No., & Quoted Text): CCP-TP-113, CCP Standard Contact-Handled Waste Visual Examination, Rev. 18 Section 4.3.2 [D] "Perform the following, AND record the applicable data for the Output Waste Container in Section 1 of Attachment 2. IF a rigid liner is present, THEN record YES, the Type of Liner, and Thickness."		
7c. Actual Condition: On Attachment 2-CCP Waste Visual Examination Data Form, the Operator did not record the Thickness of the rigid liner.		
7d. Have the CCP HOLD TAGS associated with this NCR been applied? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO If no is checked, explain: 06/19/14 LRS		
8. NCR Originator: Daniel Wade <i>Daniel Wade</i> 06/18/2014 printed name signature date		
9. Does the identified condition have the potential to impact AK? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> INDETERMINATE If YES or INDETERMINATE, enter Trend Code L in Block 10.		
10. Trend Code: A	11. Responsible Manager: Beverly Schrock	
12. Significant Condition? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO (If Yes, enter WIPP Form No.):	13. Recurring Condition? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO (If Yes, list NCRs and WIPP Forms):	
14. QA Engineer or QA Designee validation: <i>Laura R. Jones</i> <i>Laura R. Jones</i> 06/18/14 printed name signature date		

SPM-1
QW 6/25/14

Attachment 1 – CCP Nonconformance Report (NCR) (Continued)

NCR No. NCR-ORNL-0159-14			Revision 0		
INTERIM DISPOSITION					
15a. Interim Disposition (Check Only One):					
<input checked="" type="checkbox"/> N/A (See Final Disposition)		<input type="checkbox"/> Hold		<input type="checkbox"/> Conditionally Accept	
		<input type="checkbox"/> Sort		<input type="checkbox"/> Reinspect or Retest	
				<input type="checkbox"/> Conditionally Use	
				<input type="checkbox"/> Remediate	
15b. Instructions for Completion of the Interim Disposition:					
INTERIM DISPOSITION APPROVALS					
16a. Responsible Manager or Individual:					
_____		_____		_____	
printed name		signature		date	
16b. QA Engineer or QA Designee:					
_____		_____		_____	
printed name		signature		date	
Additional Approval:					
_____		_____		_____	
printed name		signature		date	
Additional Approval:					
_____		_____		_____	
printed name		signature		date	
COMPLETION OF INTERIM DISPOSITION					
17. Interim Disposition Complete – Responsible Manager or Individual:					
_____		_____		_____	
printed name		signature		date	
18. Interim Disposition Verified – QA Engineer:					
_____		_____		_____	
printed name		signature		date	

SPM-2
QW 6/25/14

Attachment 1 – CCP Nonconformance Report (NCR) (Continued)

NCR No. <u>NCR-ORNL-0159-14</u> Revision <u>0</u>		
FINAL DISPOSITION		
19. Final Disposition (Check Only One: Use-As-Is, Repair, Reject, Rework, or Scrap): <input type="checkbox"/> Use-As-Is <input type="checkbox"/> Repair		
19a. Technical Justification – Required for <u>Use-As-Is</u> or <u>Repair</u> dispositions. [<input checked="" type="checkbox"/> N/A for Reject, Rework, or Scrap]		

<input type="checkbox"/> Reject <input checked="" type="checkbox"/> Rework <input type="checkbox"/> Scrap		
19b. Instructions for Completion – Required for <u>Reject</u> , <u>Repair</u> , <u>Rework</u> , or <u>Scrap</u> [<input type="checkbox"/> N/A for Use-As-Is]		
1.) VE-Operator, make needed corrections. 2.) VE-ITR, review. 3.) SPM review.		

19c. Corrective Actions (Actions to Prevent Recurrence – For <u>Repair</u> or <u>Rework</u> , if applicable. [<input checked="" type="checkbox"/> N/A if not applicable, and for Use-As-Is, Reject, and Scrap]		
FINAL DISPOSITION APPROVALS		
20. Responsible Manager or Individual:		
Beverly Schrock <small>printed name</small>	<i>BSSchrock</i> <small>signature</small>	6/18/14 <small>date</small>
21. QA Engineer or QA Designee:		
<i>Laura P. Jones</i> <small>printed name</small>	<i>Laura Laura Jones</i> <small>signature</small>	6/18/2014 <small>date</small>
Additional Approval:		
_____	_____	_____
<small>printed name</small>	<small>signature</small>	<small>date</small>
Additional Approval:		
_____	_____	_____
<small>printed name</small>	<small>signature</small>	<small>date</small>
CLOSURE		
22. Final Disposition Complete - Responsible Manager or Individual:		
_____	_____	_____
<small>printed name</small>	<small>signature</small>	<small>date</small>
23. Attachments: 1- Email Documenting Reportability. 2- Hold tag information		
24a. HOLD TAG removal has been verified and reconciled for all nonconforming items on the NCR: <input type="checkbox"/>		
24b. If HOLD TAG is not applicable, check: <input type="checkbox"/> and explain:		
25. Final Disposition Verified – NCR Closed QA Engineer:		
_____	_____	_____
<small>printed name</small>	<small>signature</small>	<small>date</small>

SPM-3
BW 6/25/14

Attachment 5 – CCP Waste VE Batch Data Report Cover Sheet

Batch Data Report No.: DRVECH0104

Examination Date: 06/02/14

Waste Container ID Number	
1	X10CSATNO3195A1
2	N/A CW 06/02/14
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	

Independent Technical Reviewer:		
<u>Jason Cofer</u>	<u>[Signature]</u>	<u>6-3-14</u>
Print Name	Signature	Date

Attachment 4 – CCP Waste VE Batch Data Report Table of Contents

Batch Data Report No.: DRVECH0104

Examination Date: 06/02/14

Table of Contents		
Item	Description	Page No.
1	CCP Waste VE Batch Data Report Cover Sheet	1
2	CCP Waste VE Batch Data Report Table of Contents	2
3	CCP Waste Visual Examination General Information Form	3
4	CCP Waste Visual Examination Data Forms	4
5	CCP Waste VE Independent Technical Reviewer Checklist	9
6	Copy of NCRs (N/A, If Not Applicable)	N/A
7	Field Records (N/A, If Not Applicable)	N/A

Batch Data Report No.: ORVECH0104

Section 1: Output Waste Container Data	
Input Waste Container ID, as applicable: <u>X10CSATN03195A</u>	
Output Waste Container ID: <u>X10CSATN03195A1</u>	Waste Stream ID: <u>OR-ISTP-CH-MET</u>
Container Type: <u>55 Gallon</u>	TRUCON Code: <u>OR 125/225</u> Waste Matrix Code: <u>S5400</u>
Audio/Video Media Recording Number: <input checked="" type="checkbox"/> N/A	
Waste Container Weights: Tare Wt: <u>33.2</u> kg. Gross Wt: <u>89.6</u> kg.	
Rigid Liner Present? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES Type of Liner: <input type="checkbox"/> Lead <input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Fiberboard <input type="checkbox"/> Other: Thickness: <input type="checkbox"/> 30-mil <input checked="" type="checkbox"/> 90-mil <input type="checkbox"/> 110-mil <input type="checkbox"/> 125-mil <u>aw 06/19/14</u>	Rigid Liner Lid Present? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES Rigid Liner Lid is Vented (>0.3 in.) or Filtered? <input type="checkbox"/> NO <input type="checkbox"/> YES <input type="checkbox"/> N/A <input type="checkbox"/> Vented: Hole Size: <input type="checkbox"/> N/A <input type="checkbox"/> Filtered: Model No.: <input type="checkbox"/> N/A Serial No.: <input type="checkbox"/> N/A
Bag Liner Present? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES	Volume Utilization Percentage: <u>100</u> %
Does the physical form of the waste match the Waste Stream Description (i.e., Homogeneous Solids, Soil/Gravel, or Debris Waste (including uncategorized metals))? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES	
Does the physical form of the waste match the Waste Matrix Code? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES	
Closure Method: <u>TT</u> Number of Layers of Confinement: <u>1</u>	
<u>Filter Torque Wrench</u> Serial/ID No.: <u>WIPP 168</u> Calibration Due Date: <u>10/14/14</u> Filter: Model No.: <u>UT9424X 00234</u> Serial No.: <u>0138</u> Torque Value: <u>72 in. lbs</u>	<u>Lid Ring/Bolt Torque Wrench</u> Serial/ID No.: <u>WIPP149</u> Calibration Due Date: <u>08/12/14</u> Lid Ring/Bolt Torque Value: <u>60 Ft. lbs</u>
Is total dose rate greater than 200mrem/hr? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES	
NCR(s) associated with the output container? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES NCR No.: <u>N/A</u> NCR No.: <u>N/A</u>	
Comments: <u>N/A</u>	

Attachment 2 – CCP Waste Visual Examination Data Form (continued) Page 2 of 5

Batch Data Report No.: ORVECH0104

Date: 06/02/14

Section 2 - Waste Package Data				
Package and Package TID Number (as applicable)	Waste Description	WMP [Table 3]	Weight (kg) [Table 4, a]	Weighing Code(s) [Table 4 ^b]
N/A	Fiberboard, Cotton Rags Masking Tape, Absorbent Pads	(C)	2.0	E
N/A	Plastic Bags, Plastic Pieces Electrical Cords	(PW)	4.0	E
N/A	Rubber Hoses, Rubber Booties, Rubber Gasket, Rubber Gloves	(R)	2.0	E
N/A	Broken Glass Glovebox Floor Sweepings	(OI)	3.0	E
N/A	Metal Flange, Metal hand tools, metal lids, metal Bucket Metal Wire	(IM)	15.0	E
N/A	Metal Ring Stand, Metal weight Metal Tools	(IM)	30.4	E
N/A CW		06/02/14		

N/A
VEO 1: Print Name

N/A
Signature

N/A
Date

N/A
VEO 2: Print Name

N/A
Signature

N/A
Date

Signatures annotate the absence of prohibited items.

Output Waste Container ID: X10CSATN03195A1

TID Removed: N/A

TID Applied: MP85W 31394

N/A
VEO 1: Print Name

N/A
Signature

N/A
Date

N/A
VEO 2: Print Name

N/A
Signature

N/A
Date

Signatures of VEO's verifying the loading of the Output Waste Container.

Attachment 2 – CCP Waste Visual Examination Data Form (continued) Page 3 of 5

Batch Data Report No.: ORVECH0104

Output Waste Container ID: X10C9ATN03195A1

Section 3: Packaging Material and Waste Material Parameters	
Packaging Material:	Estimated Weight (kg)
Steel (ST):	27.8
Plastics (PP):	1.0
Others: (C)	4.4
Total Packaging Weight:	33.2
Waste Material Parameter:	Estimated Weight (kg)
Iron-based Metal/Alloys (IM):	45.4
Aluminum-based Metals/Alloys (AM):	N/A
Other Metals (OM):	N/A
Other Inorganic Materials (OI):	3.0
Cellulosics (C):	2.0
Rubber (R):	2.0
Plastics (waste materials) (PW):	4.0
Organic Matrix (OR):	N/A
Inorganic Matrix (IN):	N/A
Soils (S):	N/A
Total WMP Weight:	56.4

Attachment 2 – CCP Waste Visual Examination Data Form (continued) Page 4 of 5

Batch Data Report No.: DRVECH0104 Output Waste Container ID: X10CSATN03195A1

	Yes	No
Is there any observable liquid in internal containers, that is more than 60 milliliters or 3 percent by volume, whichever is greater?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there detectable observable liquid in outermost containers with an EPA Hazardous Waste Number of U134?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there an indication of wastes containing explosives or compressed gases?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there PCB liquids present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are there sealed containers GREATER than 4 liters?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are there indications of inadequate protection (blocked or braced) for heavy and/or sharp objects?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Attachment 2 – CCP Waste Visual Examination Data Form (continued)

Page 5 of 5

Batch Data Report No.: ORVECH0104 Output Waste Container ID: X10C5ATN03195A1

Section 4: Prohibited Items Summary (Continued)
(If no signs analyzed, "N/A" will be explained in the Comments block)

Comments:
N/A

Section 5: Approvals

Visual Examination Operator 1:
Chuck Wallace
Print Name

Chuck Wallace
Signature

06/02/14
Date
06/19/14

Visual Examination Operator 2:
Derek Matheny
Print Name

Derek Matheny
Signature

06/02/14
Date
6/19/14

Attachment 3 – CCP Waste VE Independent Technical Reviewer Checklist

Batch Data Report No.: DRVECHO104

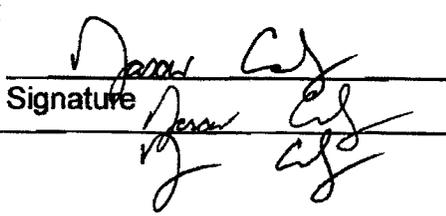
Page 1 of 2

Description			
1. Data generation and reduction were conducted in a technically correct manner in accordance with the methods used?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
2. Was the correct revision of operating procedure used?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
3. Are the waste material parameters (WMPs) entered correctly?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
4. Verify the hand calculations on the VE Data Form for the following: a. WMP weight totals b. Weight totals c. Summed volume of observable liquid, as necessary d. The total of the WMP weights is within 5% of the net weight of waste of the Output Waste Container obtained from subtracting the tare weight from the gross weight.	<input type="checkbox"/> NO <input type="checkbox"/> NO <input type="checkbox"/> NO <input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES <input checked="" type="checkbox"/> YES <input type="checkbox"/> YES <input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A <input type="checkbox"/> N/A <input checked="" type="checkbox"/> N/A <input type="checkbox"/> N/A
5. Is the data reported in the correct units and correct number of significant figures?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
6. Has the data been reviewed for transcription errors?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> N/A
7. Does the Testing Batch Report include VE for up to 20 containers?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
8. BDR contents are complete and match the CCP Waste VE Batch Data Report Table of Contents?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
9. Is all the data signed and dated in reproducible ink and by the individual(s) generating it?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
10. Is all data recorded clearly, legibly, and accurately?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
11. All changes to original data lined out, initialed and dated by the individual making the changes?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
12. Were data changes made by the individual who originally collected the data or an equally qualified individual?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
13. Did the physical form of the waste match the Waste Matrix Code and Waste Stream Description?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A

Attachment 3 – CCP Waste VE Independent Technical Reviewer Checklist (continued)

Batch Data Report No.: DRVECH004

Page 2 of 2

14. Was the waste in the Output Waste Container(s) examined for prohibited items?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
15. Is there an adequate written description of the contents of each item?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
16. Were the scale(s) in calibration prior to the VE and documented correctly?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
17. Were the scale checks SAT prior to the VE and documented correctly?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
18. Was the audio/video media recording properly prepared and labeled for each waste container?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> N/A
19. Was the audio/video media recording check performed satisfactorily prior to the VE?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> N/A
20. Precision: Was precision maintained by reconciling any discrepancies between the operator and the independent technical reviewer with regard to identification of waste matrix code, liquids in excess of TSDF-WAC limits, and compressed gases?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
21. Accuracy: Was accuracy maintained by requiring operators to pass a comprehensive examination and demonstrate satisfactory performance in the presence of the VE expert during their initial qualification and subsequent requalification (operators on LOQI)?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
22. Completeness: Is there a completed VE data form for each waste container in the BDR?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
23. Were NCRs initiated as required?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input checked="" type="checkbox"/> N/A
Comments: <u>N/A</u>			
I have reviewed 100 percent of the container-specific and batch data in this report and find it acceptable.			
Independent Technical Reviewer:			
<u>Jason Cofer</u> Printed Name		 Signature	<u>6-3-14</u> Date

36
6-25-14

6-25-14

DIVIDER

PAGE

Attachment 1 – CCP SPM Visual Examination Project Level Validation Checklist and Summary

COPY

Description of Criteria Reviewed		Criteria Met?			Comments/Qualifiers
		YES	NO	NA	
1. Is the completed, signed and dated Independent Technical Reviewer Checklist included in the BDR, and the independent technical reviewer was not involved in the generation or recording of the data under review? Reference Source: CCP-PO-001, C3-4		X			
2. Does the BDR contain all items addressed in the BDR Table of Contents? Reference Source: CCP-PO-001, C3-4		X			
3. Does the BDR include a listing of all container numbers in the batch? Reference Source: CCP-PO-001, C3-4		X			
4. List all containers that have met QAOs. Reference Source: CCP-PO-001, C3-4					Container Numbers: X10CSATN02434Q1
5. Is the current implementing procedure and revision number included in the BDR? Reference Source: CCP-PO-001, Table C3-3		X			
6. Is the BDR date included? Reference Source: CCP-PO-001, Table C3-3		X			
7. Is there a reference to or copy of any associated NCRs (if any) in the BDR? Reference Source: CCP-PO-001, Table C3-3				X	No NCRs.
8. Are there 20 or fewer containers in the batch? Reference Source: CCP-PO-001 C3-4		X			
9. Are the data properly reported (i.e., data are reported in correct units and with correct significant figures). Reference Source: CCP-PO-001 C3-4		X			
10. Is there evidence of verification that the physical form matches the Waste Matrix Code? Reference Source: CCP-PO-001, Table C3-3		X			
11. Is there evidence of verification that the physical form matches the waste stream description? Reference Source: CCP-PO-001, Table C3-3		X			
12. Are prohibited items absent? Reference Source: CCP-PO-001, Table C3-3		X			

Attachment 1 – CCP SPM Visual Examination Project Level Validation Checklist and Summary (Continued)

BDR Number: <u>ORVECH0108</u>		Examination Date(s): <u>07/07/2014</u>		
Description of Criteria Reviewed	Criteria Met?			Comments/Qualifiers
	YES	NO	NA	
13. Does observable liquid, if present, meet the criteria of the TSDF-WAC? Reference Source: CCP-PO-001, C-1			X	No observable liquid.
14. Were discrepancies between the Visual Examination operator and the ITR with regards to identification of waste matrix code, liquids in excess of the TSDF-WAC, or compressed gases reconciled? NA if no discrepancies. Reference Source: CCP-PO-001, C3-2			X	
15. Are the training requirements met for the VE Expert and VE Operators who have signed the data forms? Reference Source: CCP-PO-001, C3-8	X			
16. Is evidence of a satisfactory audio/video test included in the BDR? NA [not applicable] for VE Method for Newly Generated Waste. Reference Source: CCP-PO-001, C1-2			X	
17. If the VE was not recorded using audio/video media, does the data sheet contain the signature of two qualified operators who observed for themselves the waste being placed into the container? NA if audio/video used. Reference Source: CCP-PO-001, C1-2	X			
18. Are the weights/estimated weights for the 12 waste material parameters reported in kilograms (kg)? Reference Source: CCP Technical Procedures	X			
19. Are the descriptions for each waste material parameter included in the BDR? Reference Source: CCP-PO-001, C1-2	X			
20. Is the gross weight reported (in kg) for each container included in the BDR? Reference Source: CCP Technical Procedures	X			
21. Is the number of layers of confinement recorded? Reference Source: CCP-PO-001, C1-2	X			
22. Is sufficient information included in the BDR to determine the packaging configuration? Reference Source: CCP-PO-001, C1-2	X			

Attachment 1 – CCP SPM Visual Examination Project Level Validation Checklist and Summary (Continued)

BDR Number: <u>ORVECH0108</u>		Examination Date(s): <u>07/07/2014</u>		
Description of Criteria Reviewed	Criteria Met?			Comments/Qualifiers
	YES	NO	NA	
23. Is the type and number of filters recorded? Reference Source: CCP-PO-001, CCP Technical Procedures	X			
24. Is the size of the rigid liner vent hole recorded? NA if no liner lid. Reference Source: CCP-PO-001, CCP Technical Procedures			X	
25. For Los Alamos National Laboratory (LANL) Sealed Sources, does the characterized waste container meet the definition of sealed sources per Title 10 Code of Federal Regulations (CFR) 30.4 and Title 10 CFR 835.2 (effective January 1, 2004) evidence of which is assembled as part of AK documentation? Reference Source: CCP Technical Procedures			X	Not a LANL Sealed Source.
26. For LANL Sealed Sources, are sealed sources the only non-packaging items in the waste container? Reference Source: CCP-TP-069, 4.1.4			X	Not a LANL Sealed Source.
27. For LANL Sealed Sources, are the sealed sources a U.S. Department of Transportation (DOT) Special Form Class 7 (Radioactive Material) per Title 49 CFR 34.27 (effective January 1, 2004) and the certification of which is assembled as part of the AK documentation? Reference Source: CCP Technical Procedures			X	Not a LANL Sealed Source.
28. For LANL Sealed Sources, is the integrity of each sealed source validated by documented contamination survey results to meet the requirements of Title 10 CFR 34.27 (effective January 1, 2004), and assembled as part of AK documentation? Reference Source: CCP Technical Procedures			X	Not a LANL Sealed Source.

Attachment 1 – CCP SPM Visual Examination Project Level Validation Checklist and Summary (Continued)

BDR Number: <u>ORVECH0108</u>		Examination Date(s): <u>07/07/2014</u>		
Description of Criteria Reviewed	Criteria Met?			Comments/Qualifiers
	YES	NO	NA	
29. For LANL Sealed Sources, is each sealed source a rigid sealed container less than or equal to 4 L in size or in a rigid sealed container less than or equal to 4 L? Reference Source: CCP Technical Procedures			X	Not a LANL Sealed Source.
30. For LANL Sealed Sources, AK documentation does not indicate the use of volatile organic compounds (VOCs) or VOC-bearing materials as constituents of sealed sources? Reference Source: CCP Technical Procedures			X	Not a LANL Sealed Source.
31. For LANL Sealed Sources, the outer casing of each sealed source is of a non VOC-bearing material which is verified using the VE technique at the time of packaging? Reference Source: CCP Technical Procedures			X	Not a LANL Sealed Source.
Comments: None.				
The container QC checks were properly performed and meet the Quality Assurance Objectives (QAOs). Proper procedures were followed during data reduction and analysis. The batch is complete, acceptable, and includes all supporting data and documentation required by the QAPjP.				
Daniel Wade				07/21/2014
SPM Printed Name		Signature		Date

Checklist is to be re-signed only when a re-review is performed.

SPM Printed Name Signature Reason Date

SPM Printed Name Signature Reason Date

Attachment 5 – CCP Waste VE Batch Data Report Cover Sheet

Batch Data Report No.: DRUECH0108

Examination Date: 07/07/14

Waste Container ID Number	
1	XIOCSATN02434Q1
2	N/A CW 07/07/14
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	

Independent Technical Reviewer:

<u>Anthony Harley</u> Print Name	<u>[Signature]</u> Signature	<u>7-8-14</u> Date
-------------------------------------	---------------------------------	-----------------------

[Signature] 7-10-14

Attachment 4 – CCP Waste VE Batch Data Report Table of Contents

Batch Data Report No.: DRVECH0108

Examination Date: 07/07/14

Item	Description	Page No.
1	CCP Waste VE Batch Data Report Cover Sheet	1
2	CCP Waste VE Batch Data Report Table of Contents	2
3	CCP Waste Visual Examination General Information Form	3
4	CCP Waste Visual Examination Data Forms	4
5	CCP Waste VE Independent Technical Reviewer Checklist	9
6	Copy of NCRs (N/A, If Not Applicable)	N/A
7	Field Records (N/A, If Not Applicable)	N/A

Attachment 1 – CCP Waste Visual Examination General Information Form

Batch Data Report No.: DRVECH0108

<input checked="" type="checkbox"/> VE for Previously Packaged Waste <input type="checkbox"/> VE for Newly Generated Waste	
<input type="checkbox"/> Method 1 <input checked="" type="checkbox"/> Method 2	
Site ID: <u>OR</u>	
Examination Date: <u>07/07/14</u>	
Procedure No.: <u>CCP-TP-113</u> Revision No.: <u>18</u>	
Camera/Audio/Video Media Recording Check: <input checked="" type="checkbox"/> N/A <input type="checkbox"/> SAT	
VE Scale Information: <input checked="" type="checkbox"/> N/A	Serial/ID Number: Calibration Due Date: Operational Check: <input type="checkbox"/> SAT <input type="checkbox"/> UNSAT
Test Weight Information Test Weight Total: kg. Tray Weight: kg.	Serial/ID Number: Calibration Due Date: Serial/ID Number: Calibration Due Date: Serial/ID Number: Calibration Due Date:
Container Scale Information:	Serial/ID Number: <u>WTFP002</u> Calibration Due Date: <u>12/05/14</u> Operational Check: <input checked="" type="checkbox"/> SAT <input type="checkbox"/> UNSAT
Comments: <p style="text-align: center;"><i>VEE has determined that the VE scales shall not be used</i></p>	
Visual Examination Operator 1: <u>Chuck Wallace</u> <u><i>Chuck Wallace</i></u> <u>07/07/14</u> Print Name Signature Date	
Visual Examination Operator 2: <u>Jason Cofer</u> <u><i>Jason Cofer</i></u> <u>07/07/14</u> Print Name Signature Date	

Attachment 2 – CCP Waste Visual Examination Data Form

Page 1 of 5

Batch Data Report No.: DRVECH0108

Input Waste Container ID, as applicable: <u>X10CSATN02434Q</u>	
Output Waste Container ID: <u>X10CSATN02434Q1</u>	Waste Stream ID: <u>DR-REDC-CH-HET</u>
Container Type: <u>55 Gallon</u>	TRUCON Code: <u>DR 125/225</u> Waste Matrix Code: <u>55400</u>
Audio/Video Media Recording Number: <input checked="" type="checkbox"/> N/A	
Waste Container Weights: Tare Wt: <u>33.2</u> kg. Gross Wt: <u>65.6</u> kg.	
Rigid Liner Present? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES Type of Liner: <input type="checkbox"/> Lead <input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Fiberboard <input checked="" type="checkbox"/> Other: <u>02 07/08/14</u> Thickness: <input type="checkbox"/> 30-mil <input checked="" type="checkbox"/> 90-mil <input type="checkbox"/> 110-mil <input type="checkbox"/> 125-mil	Rigid Liner Lid Present? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES Rigid Liner Lid is Vented (>0.3 in.) or Filtered? <input type="checkbox"/> NO <input type="checkbox"/> YES <input checked="" type="checkbox"/> N/A <input type="checkbox"/> Vented: Hole Size: <input checked="" type="checkbox"/> N/A <input type="checkbox"/> Filtered: Model No.: <input checked="" type="checkbox"/> N/A Serial No.: <input checked="" type="checkbox"/> N/A
Bag Liner Present? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES	Volume Utilization Percentage: <u>90</u> %
Does the physical form of the waste match the Waste Stream Description (i.e., Homogeneous Solids, Soil/Gravel, or Debris Waste [including uncategorized metals])? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES	
Does the physical form of the waste match the Waste Matrix Code? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES	
Closure Method: <u>TT</u> Number of Layers of Confinement: <u>1</u>	
Filter Torque Wrench Serial/ID No.: <u>WIPP168</u> Calibration Due Date: <u>10/14/14</u> Filter: Model No.: <u>UT9424X 00234</u> Serial No.: <u>0259</u> Torque Value: <u>72 in. lbs.</u>	Lid Ring/Bolt Torque Wrench Serial/ID No.: <u>WIPP145</u> Calibration Due Date: <u>07/18/14</u> Lid Ring/Bolt Torque Value: <u>60 Ft. lbs</u>
Is total dose rate greater than 200mrem/hr? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES	
NCR(s) associated with the output container? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES NCR No.: <u>N/A</u> NCR No.: <u>N/A</u>	
Comments: <u>N/A</u>	

Attachment 2 – CCP Waste Visual Examination Data Form (continued)

Page 2 of 5

Batch Data Report No.: ORVECHO108

Date: 7-7-14

Section 2: Waste Package Data				
Package and Package TID Number (as applicable)	Waste Description	WMP [Table 3]	Weight (kg) [Table 4,*]	Weighing Code(s) [Table 4 ^b]
N/A	Cardboard, Masking Tape, Paper Wood Pieces	C	3.0	E
N/A	Nylon Bag, Plastic Bags, Plastic Buckets Plastic Bottles, Plastic Lids, Plastic Pieces	B(PW) JC 7-7-14	3.2	E
N/A	Metal Cans, Metal Lids, Metal Wire, Metal Scrap	(IM)	8.0	E
N/A	Thermo Couples Lead	(OM)	15.0	E
N/A	Glass Bottles, Glass Pieces	(OI)	3.2	E
XC N/A 7-7-14				

N/A
VEO 1: Print Name

N/A
Signature

N/A
Date

N/A
VEO 2: Print Name

N/A
Signature

N/A
Date

Signatures annotate the absence of prohibited items.

Output Waste Container ID: XDCSATNO2434Q1

TID Removed: N/A

TID Applied: MP85W 31045

N/A
VEO 1: Print Name

N/A
Signature

N/A
Date

N/A
VEO 2: Print Name

N/A
Signature

N/A
Date

Signatures of VEO's verifying the loading of the Output Waste Container.

Attachment 2 – CCP Waste Visual Examination Data Form (continued) Page 3 of 5

Batch Data Report No.: ORVECHO108

Output Waste Container ID: X10CSATN02434Q1

Section 3: Packaging Material and Waste Material Parameters	
Packaging Material:	Estimated Weight (kg)
Steel (ST):	27.8
Plastics (PP):	1.0
Others: (C)	4.4
Total Packaging Weight:	33.2
Waste Material Parameter:	Estimated Weight (kg)
Iron-based Metal/Alloys (IM):	8.0
Aluminum-based Metals/Alloys (AM):	N/A
Other Metals (OM):	15.0
Other Inorganic Materials (OI):	3.2
Cellulosics (C):	3.0
Rubber (R):	N/A
Plastics (waste materials) (PW):	3.2
Organic Matrix (OR):	N/A
Inorganic Matrix (IN):	N/A
Soils (S):	N/A
Total WMP Weight:	32.4

Attachment 2 – CCP Waste Visual Examination Data Form (continued)

Page 4 of 5

Batch Data Report No.: DRVECH0108 Output Waste Container ID: X10CSATN02434Q1

	Yes	No
Is there any observable liquid in internal containers, that is more than 60 milliliters or 3 percent by volume, whichever is greater?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there detectable observable liquid in outermost containers with an EPA Hazardous Waste Number of U134?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code(s))?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there an indication of wastes containing explosives or compressed gases?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there PCB liquids present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are there sealed containers GREATER than 4 liters?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are there indications of inadequate protection (blocked or braced) for heavy and/or sharp objects?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Attachment 2 – CCP Waste Visual Examination Data Form (continued)

Page 5 of 5

Batch Data Report No.: DRVECHO108 Output Waste Container ID: X10CSATN02434Q1

Comments:

N/A

Visual Examination Operator 1:

Chuck Wallace
Print Name

Chuck Wallace
Signature

07/07/14
Date

07/10/14

Visual Examination Operator 2:

Jason Cofer
Print Name

Jason Cofer
Signature

7/7/14
Date

7-10-14

Attachment 3 – CCP Waste VE Independent Technical Reviewer Checklist

Batch Data Report No.: ORVECH0108

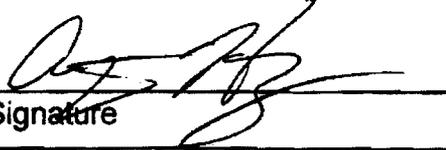
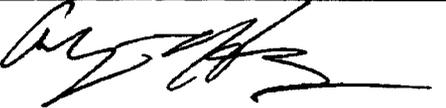
Page 1 of 2

1. Data generation and reduction were conducted in a technically correct manner in accordance with the methods used?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
2. Was the correct revision of operating procedure used?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
3. Are the waste material parameters (WMPs) entered correctly?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
4. Verify the hand calculations on the VE Data Form for the following:			
a. WMP weight totals	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
b. Weight totals	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
c. Summed volume of observable liquid, as necessary	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> N/A
d. The total of the WMP weights is within 5% of the net weight of waste of the Output Waste Container obtained from subtracting the tare weight from the gross weight.	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
5. Is the data reported in the correct units and correct number of significant figures?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
6. Has the data been reviewed for transcription errors?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> N/A
7. Does the Testing Batch Report include VE for up to 20 containers?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
8. BDR contents are complete and match the CCP Waste VE Batch Data Report Table of Contents?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
9. Is all the data signed and dated in reproducible ink and by the individual(s) generating it?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
10. Is all data recorded clearly, legibly, and accurately?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
11. All changes to original data lined out, initialed and dated by the individual making the changes?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
12. Were data changes made by the individual who originally collected the data or an equally qualified individual?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
13. Did the physical form of the waste match the Waste Matrix Code and Waste Stream Description?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A

Attachment 3 – CCP Waste VE Independent Technical Reviewer Checklist (continued)

Batch Data Report No.: DRVECH010B

Page 2 of 2

14. Was the waste in the Output Waste Container(s) examined for prohibited items?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
15. Is there an adequate written description of the contents of each item?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
16. Were the scale(s) in calibration prior to the VE and documented correctly?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
17. Were the scale checks SAT prior to the VE and documented correctly?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
18. Was the audio/video media recording properly prepared and labeled for each waste container?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> N/A
19. Was the audio/video media recording check performed satisfactorily prior to the VE?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> N/A
20. Precision: Was precision maintained by reconciling any discrepancies between the operator and the independent technical reviewer with regard to identification of waste matrix code, liquids in excess of TSDF-WAC limits, and compressed gases?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> N/A
21. Accuracy: Was accuracy maintained by requiring operators to pass a comprehensive examination and demonstrate satisfactory performance in the presence of the VE expert during their initial qualification and subsequent requalification (operators on LOQI)?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
22. Completeness: Is there a completed VE data form for each waste container in the BDR?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
23. Were NCRs initiated as required?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> N/A
Comments: <u>N/A</u>			
I have reviewed 100 percent of the container-specific and batch data in this report and find it acceptable.			
Independent Technical Reviewer:			
<u>Anthony Harley</u>		<u>7-8-14</u>	
Printed Name	Signature	Date	
		<u>7-10-14</u>	

DIVIDER

PAGE

Attachment 1 – CCP SPM Visual Examination Project Level Validation Checklist and Summary

COPY

BDR Number: <u>ORVECH0109</u>		Examination Date(s): <u>07/08/2014</u>		
Description of Criteria Reviewed	Criteria Met?			Comments/Qualifiers
	YES	NO	NA	
1. Is the completed, signed and dated Independent Technical Reviewer Checklist included in the BDR, and the independent technical reviewer was not involved in the generation or recording of the data under review? Reference Source: CCP-PO-001, C3-4	X			
2. Does the BDR contain all items addressed in the BDR Table of Contents? Reference Source: CCP-PO-001, C3-4	X			
3. Does the BDR include a listing of all container numbers in the batch? Reference Source: CCP-PO-001, C3-4	X			
4. List all containers that have met QAOs. Reference Source: CCP-PO-001, C3-4				Container Numbers: X10CSATN02607C1 X10C0501698A
5. Is the current implementing procedure and revision number included in the BDR? Reference Source: CCP-PO-001, Table C3-3	X			
6. Is the BDR date included? Reference Source: CCP-PO-001, Table C3-3	X			
7. Is there a reference to or copy of any associated NCRs (if any) in the BDR? Reference Source: CCP-PO-001, Table C3-3			X	No NCRs.
8. Are there 20 or fewer containers in the batch? Reference Source: CCP-PO-001 C3-4	X			
9. Are the data properly reported (i.e., data are reported in correct units and with correct significant figures). Reference Source: CCP-PO-001 C3-4	X			
10. Is there evidence of verification that the physical form matches the Waste Matrix Code? Reference Source: CCP-PO-001, Table C3-3	X			
11. Is there evidence of verification that the physical form matches the waste stream description? Reference Source: CCP-PO-001, Table C3-3	X			
12. Are prohibited items absent? Reference Source: CCP-PO-001, Table C3-3	X			

Attachment 1 – CCP SPM Visual Examination Project Level Validation Checklist and Summary (Continued)

BDR Number: <u>ORVECH0109</u>		Examination Date(s): <u>07/08/2014</u>		
Description of Criteria Reviewed	Criteria Met?			Comments/Qualifiers
	YES	NO	NA	
13. Does observable liquid, if present, meet the criteria of the TSDF-WAC? Reference Source: CCP-PO-001, C-1			X	No observable liquid.
14. Were discrepancies between the Visual Examination operator and the ITR with regards to identification of waste matrix code, liquids in excess of the TSDF-WAC, or compressed gases reconciled? NA if no discrepancies. Reference Source: CCP-PO-001, C3-2			X	
15. Are the training requirements met for the VE Expert and VE Operators who have signed the data forms? Reference Source: CCP-PO-001, C3-8	X			
16. Is evidence of a satisfactory audio/video test included in the BDR? NA [not applicable] for VE Method for Newly Generated Waste. Reference Source: CCP-PO-001, C1-2			X	
17. If the VE was not recorded using audio/video media, does the data sheet contain the signature of two qualified operators who observed for themselves the waste being placed into the container? NA if audio/video used. Reference Source: CCP-PO-001, C1-2	X			
18. Are the weights/estimated weights for the 12 waste material parameters reported in kilograms (kg)? Reference Source: CCP Technical Procedures	X			
19. Are the descriptions for each waste material parameter included in the BDR? Reference Source: CCP-PO-001, C1-2	X			
20. Is the gross weight reported (in kg) for each container included in the BDR? Reference Source: CCP Technical Procedures	X			
21. Is the number of layers of confinement recorded? Reference Source: CCP-PO-001, C1-2	X			
22. Is sufficient information included in the BDR to determine the packaging configuration? Reference Source: CCP-PO-001, C1-2	X			

Attachment 1 – CCP SPM Visual Examination Project Level Validation Checklist and Summary (Continued)

BDR Number: <u>ORVECH0109</u>		Examination Date(s): <u>07/08/2014</u>		
Description of Criteria Reviewed	Criteria Met?			Comments/Qualifiers
	YES	NO	NA	
23. Is the type and number of filters recorded? Reference Source: CCP-PO-001, CCP Technical Procedures	X			
24. Is the size of the rigid liner vent hole recorded? NA if no liner lid. Reference Source: CCP-PO-001, CCP Technical Procedures			X	
25. For Los Alamos National Laboratory (LANL) Sealed Sources, does the characterized waste container meet the definition of sealed sources per Title 10 Code of Federal Regulations (CFR) 30.4 and Title 10 CFR 835.2 (effective January 1, 2004) evidence of which is assembled as part of AK documentation? Reference Source: CCP Technical Procedures			X	Not a LANL Sealed Source.
26. For LANL Sealed Sources, are sealed sources the only non-packaging items in the waste container? Reference Source: CCP-TP-069, 4.1.4			X	Not a LANL Sealed Source.
27. For LANL Sealed Sources, are the sealed sources a U.S. Department of Transportation (DOT) Special Form Class 7 (Radioactive Material) per Title 49 CFR 34.27 (effective January 1, 2004) and the certification of which is assembled as part of the AK documentation? Reference Source: CCP Technical Procedures			X	Not a LANL Sealed Source.
28. For LANL Sealed Sources, is the integrity of each sealed source validated by documented contamination survey results to meet the requirements of Title 10 CFR 34.27 (effective January 1, 2004), and assembled as part of AK documentation? Reference Source: CCP Technical Procedures			X	Not a LANL Sealed Source.

Attachment 1 – CCP SPM Visual Examination Project Level Validation Checklist and Summary (Continued)

Description of Criteria Reviewed		Criteria Met?			Comments/Qualifiers
		YES	NO	NA	
29. For LANL Sealed Sources, is each sealed source a rigid sealed container less than or equal to 4 L in size or in a rigid sealed container less than or equal to 4 L? Reference Source: CCP Technical Procedures				X	Not a LANL Sealed Source.
30. For LANL Sealed Sources, AK documentation does not indicate the use of volatile organic compounds (VOCs) or VOC-bearing materials as constituents of sealed sources? Reference Source: CCP Technical Procedures				X	Not a LANL Sealed Source.
31. For LANL Sealed Sources, the outer casing of each sealed source is of a non VOC-bearing material which is verified using the VE technique at the time of packaging? Reference Source: CCP Technical Procedures				X	Not a LANL Sealed Source.
Comments: None.					
The container QC checks were properly performed and meet the Quality Assurance Objectives (QAOs). Proper procedures were followed during data reduction and analysis. The batch is complete, acceptable, and includes all supporting data and documentation required by the QAPjP.					
Daniel Wade				07/09/2014	
SPM Printed Name		Signature			Date

Checklist is to be re-signed only when a re-review is performed.

_____	_____	_____	_____
SPM Printed Name	Signature	Reason	Date
_____	_____	_____	_____
SPM Printed Name	Signature	Reason	Date

Attachment 5 – CCP Waste VE Batch Data Report Cover Sheet

Batch Data Report No.: ORVECH0109

Examination Date: 07/08/14

1	X10C5ATN02607C1
2	X10C05D11698A
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	

N/A
CW
07/08/14

Independent Technical Reviewer:

<u>Anthony Harley</u>	<u><i>[Signature]</i></u>	<u>7-8-14</u>
Print Name	Signature	Date

Attachment 4 – CCP Waste VE Batch Data Report Table of Contents

Batch Data Report No.: DRUECH-0109

Examination Date: 07/08/14

Item	Description	Page No.
1	CCP Waste VE Batch Data Report Cover Sheet	1
2	CCP Waste VE Batch Data Report Table of Contents	2
3	CCP Waste Visual Examination General Information Form	3
4	CCP Waste Visual Examination Data Forms	4
5	CCP Waste VE Independent Technical Reviewer Checklist	14
6	Copy of NCRs (N/A, If Not Applicable)	N/A
7	Field Records (N/A, If Not Applicable)	N/A

Attachment 1 – CCP Waste Visual Examination General Information Form

Batch Data Report No.: DRVECH0109

<input checked="" type="checkbox"/> VE for Previously Packaged Waste <input type="checkbox"/> VE for Newly Generated Waste	
<input type="checkbox"/> Method 1 <input checked="" type="checkbox"/> Method 2	
Site ID: <u>OR</u>	
Examination Date: <u>07/08/14</u>	
Procedure No.: <u>CCP-TP-113</u> Revision No.: <u>18</u>	
Camera/Audio/Video Media Recording Check: <input checked="" type="checkbox"/> N/A <input type="checkbox"/> SAT	
VE Scale Information: <input checked="" type="checkbox"/> N/A	Serial/ID Number: Calibration Due Date: Operational Check: <input type="checkbox"/> SAT <input type="checkbox"/> UNSAT
Test Weight Information Test Weight Total: kg. Tray Weight: kg.	Serial/ID Number: Calibration Due Date: Serial/ID Number: Calibration Due Date: Serial/ID Number: Calibration Due Date:
Container Scale Information:	Serial/ID Number: <u>WIPP002</u> Calibration Due Date: <u>12/05/14</u> Operational Check: <input checked="" type="checkbox"/> SAT <input type="checkbox"/> UNSAT
Comments: <p>The VEE has determined that the VE scales shall not be used</p>	
Visual Examination Operator 1: <u>Chuck Wallace</u> <u>Chuck Wallace</u> <u>07/08/14</u> Print Name Signature Date	
Visual Examination Operator 2: <u>Jason Cofer</u> <u>Jason Cofer</u> <u>7-8-14</u> Print Name Signature Date	

Batch Data Report No.: ORVECH0109

Input Waste Container ID, as applicable: <u>X10CSATND2607C</u>	
Output Waste Container ID: <u>X10CSATND2607C1</u>	Waste Stream ID: <u>OR-REDC-CH-HET</u>
Container Type: <u>55 Gallon</u>	TRUCON Code: <u>OR 125/225</u> Waste Matrix Code: <u>55400</u>
Audio/Video Media Recording Number: <input checked="" type="checkbox"/> N/A	
Waste Container Weights: Tare Wt: <u>33.2</u> kg. Gross Wt: <u>43.0</u> kg.	
Rigid Liner Present? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES Type of Liner: <input type="checkbox"/> Lead <input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Fiberboard <input checked="" type="checkbox"/> Other: <u>OW 07/08/14</u> Thickness: <input type="checkbox"/> 30-mil <input checked="" type="checkbox"/> 90-mil <input type="checkbox"/> 110-mil <input type="checkbox"/> 125-mil	Rigid Liner Lid Present? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES Rigid Liner Lid is Vented (>0.3 in.) or Filtered? <input type="checkbox"/> NO <input type="checkbox"/> YES <input checked="" type="checkbox"/> N/A <input type="checkbox"/> Vented: Hole Size: <input checked="" type="checkbox"/> N/A <input type="checkbox"/> Filtered: Model No.: <input checked="" type="checkbox"/> N/A Serial No.: <input checked="" type="checkbox"/> N/A
Bag Liner Present? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES	Volume Utilization Percentage: <u>90</u> %
Does the physical form of the waste match the Waste Stream Description (i.e., Homogeneous Solids, Soil/Gravel, or Debris Waste [including uncategorized metals])? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES	
Does the physical form of the waste match the Waste Matrix Code? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES	
Closure Method: <u>TT</u> Number of Layers of Confinement: <u>1</u>	
Filter Torque Wrench Serial/ID No.: <u>WIPP 168</u> Calibration Due Date: <u>10/14/14</u> Filter: Model No.: <u>UT9424X 0034</u> Serial No.: <u>0237</u> Torque Value: <u>72 in. lbs</u>	Lid Ring/Bolt Torque Wrench Serial/ID No.: <u>WIPP 145</u> Calibration Due Date: <u>07/18/14</u> Lid Ring/Bolt Torque Value: <u>60 ft. lbs</u>
Is total dose rate greater than 200mrem/hr? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES	
NCR(s) associated with the output container? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES NCR No.: <u>N/A</u> NCR No.: <u>N/A</u>	
Comments: <u>N/A</u>	

Attachment 2 – CCP Waste Visual Examination Data Form (continued)

Page 2 of 5

Batch Data Report No.: DRVECH0109

Date: 07/08/14

Package and Package TID Number (as applicable)	Waste Description	WMP [Table 3]	Weight (kg) [Table 4, *]	Weighing Code(s) [Table 4 ^b]
N/A	Plastic Bags, Plastic Bottles Plastic Pieces, Manipulator Boot	(PW)	4.0	E
N/A	Broken Glass	(OI)	1.0	E
N/A	Metal wire, Metal Pieces, Metal Buckets	(IM)	4.0	E
N/A	Electrical Cord	(R)	0.8	E
N/A	Lead	(OM)	20.0	E
N/A CW 07/08/14				

N/A
VEO 1: Print Name
N/A

N/A
Signature
N/A

N/A
Date
N/A

VEO 2: Print Name

Signature

Date

Signatures annotate the absence of prohibited items.

Output Waste Container ID: X10CSATN02607C1

TID Removed: N/A

TID Applied: MP85W 31365

N/A
VEO 1: Print Name
N/A

N/A
Signature
N/A

N/A
Date
N/A

VEO 2: Print Name

Signature

Date

Signatures of VEO's verifying the loading of the Output Waste Container.

Attachment 2 – CCP Waste Visual Examination Data Form (continued)

Page 3 of 5

Batch Data Report No.: DRVECH0109

Output Waste Container ID: X10CSATN02607C1

Packaging Material:	Estimated Weight (kg)
Steel (ST):	27.8
Plastics (PP):	1.0
Others: (C)	4.4
Total Packaging Weight:	33.2
Waste Material Parameter:	Estimated Weight (kg)
Iron-based Metal/Alloys (IM):	4.0
Aluminum-based Metals/Alloys (AM):	N/A
Other Metals (OM):	20.0
Other Inorganic Materials (OI):	1.0
Cellulosics (C):	N/A
Rubber (R):	0.8
Plastics (waste materials) (PW):	4.0
Organic Matrix (OR):	N/A
Inorganic Matrix (IN):	N/A
Soils (S):	N/A
Total WMP Weight:	29.8

le

Attachment 2 – CCP Waste Visual Examination Data Form (continued)

Page 4 of 5

Batch Data Report No.: DRVECH0109 Output Waste Container ID: X10CJATN02607C1

	Yes	No
Is there any observable liquid in internal containers, that is more than 60 milliliters or 3 percent by volume, whichever is greater?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there detectable observable liquid in outermost containers with an EPA Hazardous Waste Number of U134?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there an indication of wastes containing explosives or compressed gases?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there PCB liquids present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are there sealed containers GREATER than 4 liters?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are there indications of inadequate protection (blocked or braced) for heavy and/or sharp objects?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Attachment 2 – CCP Waste Visual Examination Data Form (continued) Page 5 of 5

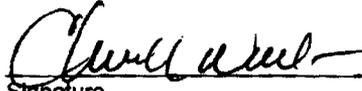
Batch Data Report No.: DRVECH0109 Output Waste Container ID: X1DC SATNO2607C1

Comments:

N/A

Visual Examination Operator 1:

Chuck Wallace
Print Name


Signature

07/08/14
Date

Visual Examination Operator 2:

Jason Coker
Print Name


Signature

7-8-14
Date

Batch Data Report No.: DRVECH0109

Section 1: Output Waste Container Data	
Input Waste Container ID, as applicable: <u>X10C0501698</u>	
Output Waste Container ID: <u>X10C0501698A</u>	Waste Stream ID: <u>OR-REDC-CH-HET</u>
Container Type: <u>55 gallon</u>	TRUCON Code: <u>OR 125/225</u> Waste Matrix Code: <u>95400</u>
Audio/Video Media Recording Number: <input checked="" type="checkbox"/> N/A	
Waste Container Weights:	
Tare Wt: <u>33.2</u> kg.	Gross Wt: <u>91.4</u> kg.
Rigid Liner Present? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES	Rigid Liner Lid Present? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES
Type of Liner: <input type="checkbox"/> Lead <input type="checkbox"/> Plastic	Rigid Liner Lid is Vented (>0.3 in.) or Filtered?
<input checked="" type="checkbox"/> Fiberboard <input type="checkbox"/> Other:	<input type="checkbox"/> NO <input type="checkbox"/> YES <input checked="" type="checkbox"/> N/A
Thickness: <input type="checkbox"/> 30-mil <input checked="" type="checkbox"/> 90-mil <input type="checkbox"/> 110-mil	<input type="checkbox"/> Vented: Hole Size: <input checked="" type="checkbox"/> N/A
<input type="checkbox"/> 125-mil	<input type="checkbox"/> Filtered: Model No.: <input checked="" type="checkbox"/> N/A
	Serial No.: <input checked="" type="checkbox"/> N/A
Bag Liner Present? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES	Volume Utilization Percentage: <u>90</u> %
Does the physical form of the waste match the Waste Stream Description (i.e., Homogeneous Solids, Soil/Gravel, or Debris Waste [including uncategorized metals])? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES	
Does the physical form of the waste match the Waste Matrix Code? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES	
Closure Method: <u>TT</u>	
Number of Layers of Confinement: <u>1</u>	
<u>Filter Torque Wrench</u> Serial/ID No.: <u>WIPP168</u> Calibration Due Date: <u>10/14/14</u> Filter: Model No.: <u>UT9424X 00284</u> Serial No.: <u>0076</u> Torque Value: <u>72 in. lbs</u>	<u>Lid Ring/Bolt Torque Wrench</u> Serial/ID No.: <u>WIPP145</u> Calibration Due Date: <u>07/18/14</u> Lid Ring/Bolt Torque Value: <u>60 ft lbs</u>
Is total dose rate greater than 200mrem/hr? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES	
NCR(s) associated with the output container? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES	
NCR No.: <u>N/A</u>	
NCR No.: <u>N/A</u>	
Comments: <u>N/A</u>	

Attachment 2 – CCP Waste Visual Examination Data Form (continued) Page 2 of 5

Batch Data Report No.: DRVECH0109

Date: 07/08/14

Section 2 - Waste Package Data				
Package and Package TID Number (as applicable)	Waste Description	WMP [Table 3]	Weight (kg) [Table 4.2]	Weighing Code(s) [Table 4.2]
N/A	Cardboard, Wood Pieces Cauze	(C)	4.0	E
N/A	Plastic Bags, Plastic Bottles, Plastic Lids	(PW)	5.0	E
N/A	Metal Buckets, Metal lids metal tools, metal ^{Pump} pieces <small>on 7/2/08/14</small>	(IM)	15.0	E
N/A	Rubber hose, Rubber gloves Electrical Cord	(R)	4.2	E
N/A	Drierite, Broken Glass Glass Bottles, Glassware	(OI)	30.0	E
N/A CW 07/08/14				

N/A
VEO 1: Print Name

N/A
Signature

N/A
Date

N/A
VEO 2: Print Name

N/A
Signature

N/A
Date

Signatures annotate the absence of prohibited items.

Output Waste Container ID: X10C0501698A

TID Removed: N/A

TID Applied: MP85W 33743

N/A
VEO 1: Print Name

N/A
Signature

N/A
Date

N/A
VEO 2: Print Name

N/A
Signature

N/A
Date

Signatures of VEO's verifying the loading of the Output Waste Container.

Attachment 2 – CCP Waste Visual Examination Data Form (continued)

Page 3 of 5

Batch Data Report No.: ORVECH0109

Output Waste Container ID: X10C0501698A

Section 3: Packaging Material and Waste Material Parameters	
Packaging Material:	Estimated Weight (kg)
Steel (ST):	27.8
Plastics (PP):	4.4
Others: (c)	1.0
Total Packaging Weight:	33.2
Waste Material Parameter:	Estimated Weight (kg)
Iron-based Metal/Alloys (IM):	15.0
Aluminum-based Metals/Alloys (AM):	N/A
Other Metals (OM):	N/A
Other Inorganic Materials (OI):	30.0
Cellulosics (C):	4.0
Rubber (R):	4.2
Plastics (waste materials) (PW):	5.0
Organic Matrix (OR):	N/A
Inorganic Matrix (IN):	N/A
Soils (S):	N/A
Total WMP Weight:	58.2

Attachment 2 – CCP Waste Visual Examination Data Form (continued)

Page 4 of 5

Batch Data Report No.: DRVECH0109 Output Waste Container ID: X10C0501698A

	Yes	No
Is there any observable liquid in internal containers, that is more than 60 milliliters or 3 percent by volume, whichever is greater?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there detectable observable liquid in outermost containers with an EPA Hazardous Waste Number of U134?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code(s))?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there an indication of wastes containing explosives or compressed gases?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there PCB liquids present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are there sealed containers GREATER than 4 liters?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are there indications of inadequate protection (blocked or braced) for heavy and/or sharp objects?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Attachment 2 – CCP Waste Visual Examination Data Form (continued)

Page 5 of 5

Batch Data Report No.: DRVECH0109 Output Waste Container ID: X1000501698A

Section 4: Prohibited Item(s) Summary (Continued)
(Classifications of "YES" will be explained in the Comments block)

Comments:

N/A

Section 5: Approvals

Visual Examination Operator 1:

Print Name

Chuck Wallace

Signature

Chuck Wallace

Date

07/08/14

Visual Examination Operator 2:

Print Name

Jason Carter

Signature

Jason Carter

Date

7-8-14

Attachment 3 – CCP Waste VE Independent Technical Reviewer Checklist

Batch Data Report No.: DRVECH0109

Page 1 of 2

1. Data generation and reduction were conducted in a technically correct manner in accordance with the methods used?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
2. Was the correct revision of operating procedure used?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
3. Are the waste material parameters (WMPs) entered correctly?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
4. Verify the hand calculations on the VE Data Form for the following: a. WMP weight totals b. Weight totals c. Summed volume of observable liquid, as necessary d. The total of the WMP weights is within 5% of the net weight of waste of the Output Waste Container obtained from subtracting the tare weight from the gross weight.	<input type="checkbox"/> NO <input type="checkbox"/> NO <input type="checkbox"/> NO <input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES <input checked="" type="checkbox"/> YES <input type="checkbox"/> YES <input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A <input type="checkbox"/> N/A <input checked="" type="checkbox"/> N/A <input type="checkbox"/> N/A
5. Is the data reported in the correct units and correct number of significant figures?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
6. Has the data been reviewed for transcription errors?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> N/A
7. Does the Testing Batch Report include VE for up to 20 containers?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
8. BDR contents are complete and match the CCP Waste VE Batch Data Report Table of Contents?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
9. Is all the data signed and dated in reproducible ink and by the individual(s) generating it?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
10. Is all data recorded clearly, legibly, and accurately?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
11. All changes to original data lined out, initialed and dated by the individual making the changes?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
12. Were data changes made by the individual who originally collected the data or an equally qualified individual?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
13. Did the physical form of the waste match the Waste Matrix Code and Waste Stream Description?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A

Attachment 3 – CCP Waste VE Independent Technical Reviewer Checklist (continued)

Batch Data Report No.: DRVECH0109

Page 2 of 2

14. Was the waste in the Output Waste Container(s) examined for prohibited items?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
15. Is there an adequate written description of the contents of each item?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
16. Were the scale(s) in calibration prior to the VE and documented correctly?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
17. Were the scale checks SAT prior to the VE and documented correctly?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
18. Was the audio/video media recording properly prepared and labeled for each waste container?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> N/A
19. Was the audio/video media recording check performed satisfactorily prior to the VE?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> N/A
20. Precision: Was precision maintained by reconciling any discrepancies between the operator and the independent technical reviewer with regard to identification of waste matrix code, liquids in excess of TSDf-WAC limits, and compressed gases?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> N/A
21. Accuracy: Was accuracy maintained by requiring operators to pass a comprehensive examination and demonstrate satisfactory performance in the presence of the VE expert during their initial qualification and subsequent requalification (operators on LOQI)?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
22. Completeness: Is there a completed VE data form for each waste container in the BDR?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
23. Were NCRs initiated as required?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> N/A
Comments: <u>N/A</u>			
I have reviewed 100 percent of the container-specific and batch data in this report and find it acceptable.			
Independent Technical Reviewer:			
<u>Anthony Harley</u>		<u>7-8-14</u>	
Printed Name	Signature	Date	

DIVIDER

PAGE

Attachment 1 – CCP SPM Visual Examination Project Level Validation Checklist and Summary

BDR Number: <u>ORVECH0110</u>		Examination Date(s): <u>07/09/2014</u>		
Description of Criteria Reviewed	Criteria Met?			Comments/Qualifiers
	YES	NO	NA	
1. Is the completed, signed and dated Independent Technical Reviewer Checklist included in the BDR, and the independent technical reviewer was not involved in the generation or recording of the data under review? Reference Source: CCP-PO-001, C3-4	X			
2. Does the BDR contain all items addressed in the BDR Table of Contents? Reference Source: CCP-PO-001, C3-4	X			
3. Does the BDR include a listing of all container numbers in the batch? Reference Source: CCP-PO-001, C3-4	X			
4. List all containers that have met QAOs. Reference Source: CCP-PO-001, C3-4				Container Numbers: X10CSATN02275H1 X10C9307318B1
5. Is the current implementing procedure and revision number included in the BDR? Reference Source: CCP-PO-001, Table C3-3	X			
6. Is the BDR date included? Reference Source: CCP-PO-001, Table C3-3	X			
7. Is there a reference to or copy of any associated NCRs (if any) in the BDR? Reference Source: CCP-PO-001, Table C3-3			X	No NCRs.
8. Are there 20 or fewer containers in the batch? Reference Source: CCP-PO-001 C3-4	X			
9. Are the data properly reported (i.e., data are reported in correct units and with correct significant figures). Reference Source: CCP-PO-001 C3-4	X			
10. Is there evidence of verification that the physical form matches the Waste Matrix Code? Reference Source: CCP-PO-001, Table C3-3	X			
11. Is there evidence of verification that the physical form matches the waste stream description? Reference Source: CCP-PO-001, Table C3-3	X			
12. Are prohibited items absent? Reference Source: CCP-PO-001, Table C3-3	X			

Attachment 1 – CCP SPM Visual Examination Project Level Validation Checklist and Summary (Continued)

BDR Number: <u>ORVECH0110</u>		Examination Date(s): <u>07/09/2014</u>		
Description of Criteria Reviewed	Criteria Met?			Comments/Qualifiers
	YES	NO	NA	
13. Does observable liquid, if present, meet the criteria of the TSDF-WAC? Reference Source: CCP-PO-001, C-1			X	No observable liquid.
14. Were discrepancies between the Visual Examination operator and the ITR with regards to identification of waste matrix code, liquids in excess of the TSDF-WAC, or compressed gases reconciled? NA if no discrepancies. Reference Source: CCP-PO-001, C3-2			X	
15. Are the training requirements met for the VE Expert and VE Operators who have signed the data forms? Reference Source: CCP-PO-001, C3-8	X			
16. Is evidence of a satisfactory audio/video test included in the BDR? NA [not applicable] for VE Method for Newly Generated Waste. Reference Source: CCP-PO-001, C1-2			X	
17. If the VE was not recorded using audio/video media, does the data sheet contain the signature of two qualified operators who observed for themselves the waste being placed into the container? NA if audio/video used. Reference Source: CCP-PO-001, C1-2	X			
18. Are the weights/estimated weights for the 12 waste material parameters reported in kilograms (kg)? Reference Source: CCP Technical Procedures	X			
19. Are the descriptions for each waste material parameter included in the BDR? Reference Source: CCP-PO-001, C1-2	X			
20. Is the gross weight reported (in kg) for each container included in the BDR? Reference Source: CCP Technical Procedures	X			
21. Is the number of layers of confinement recorded? Reference Source: CCP-PO-001, C1-2	X			
22. Is sufficient information included in the BDR to determine the packaging configuration? Reference Source: CCP-PO-001, C1-2	X			

Attachment 1 – CCP SPM Visual Examination Project Level Validation Checklist and Summary (Continued)

BDR Number: <u>ORVECH0110</u>		Examination Date(s): <u>07/09/2014</u>		
Description of Criteria Reviewed	Criteria Met?			Comments/Qualifiers
	YES	NO	NA	
23. Is the type and number of filters recorded? Reference Source: CCP-PO-001, CCP Technical Procedures	X			
24. Is the size of the rigid liner vent hole recorded? NA if no liner lid. Reference Source: CCP-PO-001, CCP Technical Procedures			X	
25. For Los Alamos National Laboratory (LANL) Sealed Sources, does the characterized waste container meet the definition of sealed sources per Title 10 Code of Federal Regulations (CFR) 30.4 and Title 10 CFR 835.2 (effective January 1, 2004) evidence of which is assembled as part of AK documentation? Reference Source: CCP Technical Procedures			X	Not a LANL Sealed Source.
26. For LANL Sealed Sources, are sealed sources the only non-packaging items in the waste container? Reference Source: CCP-TP-069, 4.1.4			X	Not a LANL Sealed Source.
27. For LANL Sealed Sources, are the sealed sources a U.S. Department of Transportation (DOT) Special Form Class 7 (Radioactive Material) per Title 49 CFR 34.27 (effective January 1, 2004) and the certification of which is assembled as part of the AK documentation? Reference Source: CCP Technical Procedures			X	Not a LANL Sealed Source.
28. For LANL Sealed Sources, is the integrity of each sealed source validated by documented contamination survey results to meet the requirements of Title 10 CFR 34.27 (effective January 1, 2004), and assembled as part of AK documentation? Reference Source: CCP Technical Procedures			X	Not a LANL Sealed Source.

Attachment 1 – CCP SPM Visual Examination Project Level Validation Checklist and Summary (Continued)

Description of Criteria Reviewed		Criteria Met?			Comments/Qualifiers
		YES	NO	NA	
29. For LANL Sealed Sources, is each sealed source a rigid sealed container less than or equal to 4 L in size or in a rigid sealed container less than or equal to 4 L? Reference Source: CCP Technical Procedures				X	Not a LANL Sealed Source.
30. For LANL Sealed Sources, AK documentation does not indicate the use of volatile organic compounds (VOCs) or VOC-bearing materials as constituents of sealed sources? Reference Source: CCP Technical Procedures				X	Not a LANL Sealed Source.
31. For LANL Sealed Sources, the outer casing of each sealed source is of a non VOC-bearing material which is verified using the VE technique at the time of packaging? Reference Source: CCP Technical Procedures				X	Not a LANL Sealed Source.
Comments: None.					
The container QC checks were properly performed and meet the Quality Assurance Objectives (QAOs). Proper procedures were followed during data reduction and analysis. The batch is complete, acceptable, and includes all supporting data and documentation required by the QAPjP.					
Daniel Wade				07/21/2014	
SPM Printed Name		Signature			Date

Checklist is to be re-signed only when a re-review is performed.

SPM Printed Name	Signature	Reason	Date
SPM Printed Name	Signature	Reason	Date

Attachment 5 – CCP Waste VE Batch Data Report Cover Sheet

Batch Data Report No.: DRVECH0110

Examination Date: 07/09/14

1	X10CSATN02275H1
2	X10C9307318B1
3	N/A CW 07/09/14
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	

Independent Technical Reviewer:		
<u>Anthony Harley</u>	<u>[Signature]</u>	<u>7-10-14</u>
Print Name	Signature	Date

Attachment 4 – CCP Waste VE Batch Data Report Table of Contents

Batch Data Report No.: DRVECH0110

Examination Date: 07/09/14

Item	Description	Page No.
1	CCP Waste VE Batch Data Report Cover Sheet	1
2	CCP Waste VE Batch Data Report Table of Contents	2
3	CCP Waste Visual Examination General Information Form	3
4	CCP Waste Visual Examination Data Forms	4
5	CCP Waste VE Independent Technical Reviewer Checklist	14
6	Copy of NCRs (N/A, If Not Applicable)	N/A
7	Field Records (N/A, If Not Applicable)	N/A

Attachment 2 – CCP Waste Visual Examination Data Form

Page 1 of 5

Batch Data Report No.: ORVECH0110

Section 1: Data Entry - Container Data	
Input Waste Container ID, as applicable: <u>X10CSATNO2275H</u>	
Output Waste Container ID: <u>X10CSATNO2275H1</u>	Waste Stream ID: <u>OR-REDC-CK-HET</u>
Container Type: <u>55 gallon</u>	TRUCON Code: <u>OR 125/225</u> Waste Matrix Code: <u>S5400</u>
Audio/Video Media Recording Number: <input checked="" type="checkbox"/> N/A	
Waste Container Weights:	
Tare Wt: <u>33.2</u> kg.	Gross Wt: <u>82.8</u> kg.
Rigid Liner Present? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES	Rigid Liner Lid Present? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES
Type of Liner: <input type="checkbox"/> Lead <input type="checkbox"/> Plastic	Rigid Liner Lid is Vented (>0.3 in.) or Filtered?
<input checked="" type="checkbox"/> Fiberboard <input type="checkbox"/> Other:	<input type="checkbox"/> NO <input type="checkbox"/> YES <input checked="" type="checkbox"/> N/A
Thickness: <input type="checkbox"/> 30-mil <input checked="" type="checkbox"/> 90-mil <input type="checkbox"/> 110-mil	<input type="checkbox"/> Vented: Hole Size: <input type="checkbox"/> N/A
<input type="checkbox"/> 125-mil	<input type="checkbox"/> Filtered: Model No.: <input checked="" type="checkbox"/> N/A
	Serial No.: <input checked="" type="checkbox"/> N/A
Bag Liner Present? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES	Volume Utilization Percentage: <u>100</u> %
Does the physical form of the waste match the Waste Stream Description (i.e., Homogeneous Solids, Soil/Gravel, or Debris Waste [including uncategorized metals])? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES	
Does the physical form of the waste match the Waste Matrix Code? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES	
Closure Method: <u>TT</u>	
Number of Layers of Confinement: <u>1</u>	
Filter Torque Wrench Serial/ID No.: <u>WIPP168</u> Calibration Due Date: <u>10/14/14</u> Filter: Model No.: <u>UT9424X 00234</u> Serial No.: <u>0010</u> Torque Value: <u>72 in. lbs</u>	Lid Ring/Bolt Torque Wrench Serial/ID No.: <u>WIPP145</u> Calibration Due Date: <u>07/18/14</u> Lid Ring/Bolt Torque Value: <u>60 ft. lbs</u>
Is total dose rate greater than 200mrem/hr? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES	
NCR(s) associated with the output container? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES	
NCR No.: <u>N/A</u>	
NCR No.: <u>N/A</u>	
Comments: <u>N/A</u>	

Batch Data Report No.: ORVECH0110

Date: 07/09/14

Package and Package TID Number (as applicable)	Waste Description	WMP [Table 3]	Weight (kg) [Table 4, *]	Weighing Code(s) [Table 4*]
N/A	Metal Cans, Metal Pieces Metal Furnace, Metal light bulb base	(IM)	20.0	E
N/A	Aluminum Pieces Aluminum Tools	(AM)	10.0	E
N/A	Paper, Cotton Rags, Cardboard	(C)	4.0	E
N/A	Fireblanket, Broken Glass, Glass Bottles, Floor Sweepings	(OI)	3.6	E
N/A	Plastic Bags, Plastic tubing, Plastic Bottles	(PW)	2.0	E
N/A	Lead Pig	(OM)	10.0	E
N/A CW 07/09/14				

N/A
VEO 1: Print Name

N/A
Signature

N/A
Date

N/A
VEO 2: Print Name

N/A
Signature

N/A
Date

Signatures annotate the absence of prohibited items.

Output Waste Container ID: XIDCSATN02275H1

TID Removed: N/A

TID Applied: MPB5W 33742

N/A
VEO 1: Print Name

N/A
Signature

N/A
Date

N/A
VEO 2: Print Name

N/A
Signature

N/A
Date

Signatures of VEO's verifying the loading of the Output Waste Container.

Attachment 2 – CCP Waste Visual Examination Data Form (continued)

Page 3 of 5

Batch Data Report No.: DRUECH0110

Output Waste Container ID: X10CSAT1402295H1

Packaging Material:	Estimated Weight (kg)
Steel (ST):	27.8
Plastics (PP):	1.0
Others:	4.4
Total Packaging Weight:	33.2
Waste Material Parameter:	Estimated Weight (kg)
Iron-based Metal/Alloys (IM):	20.0
Aluminum-based Metals/Alloys (AM):	10.0
Other Metals (OM):	10.0
Other Inorganic Materials (OI):	3.6
Cellulosics (C):	4.0
Rubber (R):	N/A
Plastics (waste materials) (PW):	2.0
Organic Matrix (OR):	N/A
Inorganic Matrix (IN):	N/A
Soils (S):	N/A
Total WMP Weight:	49.6

Attachment 2 – CCP Waste Visual Examination Data Form (continued)

Page 4 of 5

Batch Data Report No.: DRVECH 0110 Output Waste Container ID: X10CJATN02275H1

	Yes	No
Is there any observable liquid in internal containers, that is more than 60 milliliters or 3 percent by volume, whichever is greater?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there detectable observable liquid in outermost containers with an EPA Hazardous Waste Number of U134?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code(s))?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there an indication of wastes containing explosives or compressed gases?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there PCB liquids present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are there sealed containers GREATER than 4 liters?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are there indications of inadequate protection (blocked or braced) for heavy and/or sharp objects?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Attachment 2 – CCP Waste Visual Examination Data Form (continued)

Page 5 of 5

Batch Data Report No.: DRVECH0110 Output Waste Container ID: X10C3ATN02275112

Comments:

N/A

Visual Examination Operator 1:

Chuck Wallace
Print Name

Chuck Wallace
Signature

09/09/14
Date

Visual Examination Operator 2:

Jason Cohen
Print Name

Jason Cohen
Signature

7-9-14
Date
7-10-14

Batch Data Report No.: DRVECH0110

Input Waste Container ID, as applicable: <u>X10C9307318B</u>	
Output Waste Container ID: <u>X10C9307318B1</u>	Waste Stream ID: <u>DR-ISTP-CH-HET</u>
Container Type: <u>55 gallon</u>	TRUCON Code: <u>DR 125/225</u> Waste Matrix Code: <u>S5400</u>
Audio/Video Media Recording Number: <input checked="" type="checkbox"/> N/A	
Waste Container Weights: Tare Wt: <u>33.2</u> kg. Gross Wt: <u>134.8</u> kg.	
Rigid Liner Present? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES Type of Liner: <input type="checkbox"/> Lead <input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Fiberboard <input type="checkbox"/> Other: Thickness: <input type="checkbox"/> 30-mil <input checked="" type="checkbox"/> 90-mil <input type="checkbox"/> 110-mil <input type="checkbox"/> 125-mil	Rigid Liner Lid Present? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES Rigid Liner Lid is Vented (>0.3 in.) or Filtered? <input type="checkbox"/> NO <input type="checkbox"/> YES <input checked="" type="checkbox"/> N/A <input type="checkbox"/> Vented: Hole Size: <input checked="" type="checkbox"/> N/A <input type="checkbox"/> Filtered: Model No.: <input checked="" type="checkbox"/> N/A Serial No.: <input checked="" type="checkbox"/> N/A
Bag Liner Present? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES	Volume Utilization Percentage: <u>80</u> %
Does the physical form of the waste match the Waste Stream Description (i.e., Homogeneous Solids, Soil/Gravel, or Debris Waste [including uncategorized metals])? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES	
Does the physical form of the waste match the Waste Matrix Code? <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES	
Closure Method: <u>TT</u> Number of Layers of Confinement: <u>1</u>	
Filter Torque Wrench Serial/ID No.: <u>WI PP 168</u> Calibration Due Date: <u>10/14/14</u> Filter: Model No.: <u>UT9434X 00234</u> Serial No.: <u>0015</u> Torque Value: <u>72 in. lbs.</u>	Lid Ring/Bolt Torque Wrench Serial/ID No.: <u>WI PP 145</u> Calibration Due Date: <u>07/18/14</u> Lid Ring/Bolt Torque Value: <u>60 Ft. lbs.</u>
Is total dose rate greater than 200mrem/hr? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES	
NCR(s) associated with the output container? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES NCR No.: <u>N/A</u> NCR No.: <u>N/A</u>	
Comments: <u>N/A</u>	

Attachment 2 – CCP Waste Visual Examination Data Form (continued) Page 2 of 5

Batch Data Report No.: DRVECH0110

Date: 07/09/14

Package and Package TID Number (as applicable)	Waste Description	WMP [Table 3]	Weight (kg) [Table 4.1]	Weighing Code(s) [Table 4.2]
N/A	Lead Bricks, Lead Sheets Lead Blocks, Lead Pigs	(OM)	90.0	E
N/A	Rubber Pad	(R)	1.6	E
N/A	Plastic Bag, Plastic Tape	(PW)	4.0	E
N/A	Fiberboard Absorbent Pad	(C)	6.4 6.0	E
N/A CW 07/09/14				

N/A
VEO 1: Print Name

N/A
Signature

N/A
Date

N/A
VEO 2: Print Name

N/A
Signature

N/A
Date

Signatures annotate the absence of prohibited items.

Output Waste Container ID: X10C9307318B7

TID Removed: N/A

TID Applied: MP85W 33756

N/A
VEO 1: Print Name

N/A
Signature

N/A
Date

N/A
VEO 2: Print Name

N/A
Signature

N/A
Date

Signatures of VEO's verifying the loading of the Output Waste Container.

Attachment 2 – CCP Waste Visual Examination Data Form (continued)

Page 3 of 5

Batch Data Report No.: ORVECH0110

Output Waste Container ID: X10C9307318B1

Packaging Material:	Estimated Weight (kg)
Steel (ST):	27.8
Plastics (PP):	1.0
Others: (c)	4.4
Total Packaging Weight:	33.2
Waste Material Parameter:	Estimated Weight (kg)
Iron-based Metal/Alloys (IM):	N/A
Aluminum-based Metals/Alloys (AM):	N/A
Other Metals (OM):	90.0
Other Inorganic Materials (OI):	N/A
Cellulosics (C):	6.0
Rubber (R):	1.6
Plastics (waste materials) (PW):	4.0
Organic Matrix (OR):	N/A
Inorganic Matrix (IN):	N/A
Soils (S):	N/A
Total WMP Weight:	101.6

Attachment 2 – CCP Waste Visual Examination Data Form (continued) Page 4 of 5

Batch Data Report No.: ORVECH010 Output Waste Container ID: X10C9307318B1

	Yes	No
Is there any observable liquid in internal containers, that is more than 60 milliliters or 3 percent by volume, whichever is greater?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there detectable observable liquid in outermost containers with an EPA Hazardous Waste Number of U134?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there an indication of wastes containing explosives or compressed gases?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there PCB liquids present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are there sealed containers GREATER than 4 liters?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are there indications of inadequate protection (blocked or braced) for heavy and/or sharp objects?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Batch Data Report No.: DRVECH0110 Output Waste Container ID: X10C930731BB1

Comments:

N/A

Visual Examination Operator 1:

Chuck Wallace
Print Name

Chuck Wallace
Signature

07/09/14
Date

Visual Examination Operator 2:

Jason Cote
Print Name

J Cote
Signature

7-9-14
Date

Attachment 3 – CCP Waste VE Independent Technical Reviewer Checklist

Batch Data Report No.: DRVECH0110

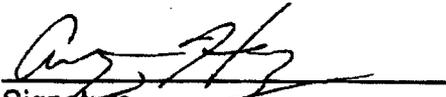
Page 1 of 2

1. Data generation and reduction were conducted in a technically correct manner in accordance with the methods used?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
2. Was the correct revision of operating procedure used?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
3. Are the waste material parameters (WMPs) entered correctly?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
4. Verify the hand calculations on the VE Data Form for the following: a. WMP weight totals b. Weight totals c. Summed volume of observable liquid, as necessary d. The total of the WMP weights is within 5% of the net weight of waste of the Output Waste Container obtained from subtracting the tare weight from the gross weight.	<input type="checkbox"/> NO <input type="checkbox"/> NO <input type="checkbox"/> NO <input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES <input checked="" type="checkbox"/> YES <input type="checkbox"/> YES <input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A <input type="checkbox"/> N/A <input checked="" type="checkbox"/> N/A <input type="checkbox"/> N/A
5. Is the data reported in the correct units and correct number of significant figures?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
6. Has the data been reviewed for transcription errors?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> N/A
7. Does the Testing Batch Report include VE for up to 20 containers?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
8. BDR contents are complete and match the CCP Waste VE Batch Data Report Table of Contents?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
9. Is all the data signed and dated in reproducible ink and by the individual(s) generating it?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
10. Is all data recorded clearly, legibly, and accurately?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
11. All changes to original data lined out, initialed and dated by the individual making the changes?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
12. Were data changes made by the individual who originally collected the data or an equally qualified individual?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
13. Did the physical form of the waste match the Waste Matrix Code and Waste Stream Description?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A

Attachment 3 – CCP Waste VE Independent Technical Reviewer Checklist (continued)

Batch Data Report No.: DRVECH0110

Page 2 of 2

14. Was the waste in the Output Waste Container(s) examined for prohibited items?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
15. Is there an adequate written description of the contents of each item?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
16. Were the scale(s) in calibration prior to the VE and documented correctly?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
17. Were the scale checks SAT prior to the VE and documented correctly?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
18. Was the audio/video media recording properly prepared and labeled for each waste container?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> N/A
19. Was the audio/video media recording check performed satisfactorily prior to the VE?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> N/A
20. Precision: Was precision maintained by reconciling any discrepancies between the operator and the independent technical reviewer with regard to identification of waste matrix code, liquids in excess of TSDF-WAC limits, and compressed gases?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> N/A
21. Accuracy: Was accuracy maintained by requiring operators to pass a comprehensive examination and demonstrate satisfactory performance in the presence of the VE expert during their initial qualification and subsequent requalification (operators on LOQI)?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
22. Completeness: Is there a completed VE data form for each waste container in the BDR?	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> N/A
23. Were NCRs initiated as required?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> N/A
Comments: <u>N/A</u>			
I have reviewed 100 percent of the container-specific and batch data in this report and find it acceptable.			
Independent Technical Reviewer:			
<u>Anthony Harley</u>	<u></u>	<u>7-10-14</u>	
Printed Name	Signature	Date	

VE2

National TRU Program Certification
Effective Date: 09/23/2013

VE-01, Rev. 5
Page 1 of 6

Visual Examination (VE) Operator/Independent Technical Reviewer (ITR) for Contact-Handled (CH) Waste Qualification Card

Name: **Jason Cofer**

Education/Experience

Resume documenting education and experience on file with National TRU Program Certification (NTPC) Training.

Cheryl Almy
NTPC Training

04-01-14
Date

Job Specific Training

Initial Qualification Requalification Full Requalification

Qualification Limit

This qualification is valid for two (2) years.

If necessary, additional training may be required by the Site Project Manager (SPM) or the Manager Responsible for Training.

Unsatisfactory performance will result in disqualification by the Manager Responsible for Training. The candidate must successfully complete the entire qualification card to reestablish qualification.

This qualification card applies to all CH sites except for Idaho National Laboratory (INL) and Los Alamos National Laboratory (LANL) Off Site Source Recovery Program (OSRP). The qualification cards for these sites are VE-PIT-01 and VE-OSRP-01, respectively.

Requalification Requirements

Items required for requalification are identified by text.

Indoctrination

(Required at Initial Qualification and Full Requalification)

Initial/Indoctrination Reading:

1. WP 15-GM1002, *Issues Management Processing of WIPP Forms*
2. CCP-HSP-014, *Health and Safety Program Implementation for CCP*
3. CCP-PO-001, *CCP Transuranic Waste Characterization Quality Assurance Project Plan*
4. CCP-PO-002, *CCP Transuranic Waste Certification Plan*
5. CCP-PO-003, *CCP Transuranic Authorized Methods for Payload Control (CCP CH-TRAMPAC)*
6. CCP-PO-050, *CCP TRUPACT-III TRU Waste Authorized Methods for Payload Control (CCP TRUPACT-III TRAMPAC)*
7. CCP-QP-002, *CCP Training and Qualification Plan*
8. CCP-QP-005, *CCP TRU Nonconforming Item Reporting and Control*
9. CCP-QP-008, *CCP Records Management*
10. CCP-QP-010, *CCP Document Preparation, Approval, and Control*
11. CCP-QP-016, *CCP Control of Measuring and Testing Equipment*
12. CCP-QP-023, *CCP Handling, Storage, and Shipping*
13. CCP-TP-113, *CCP Standard Contact-Handled Waste Visual Examination*

I have read the listed Initial/Indoctrination Reading and understand my responsibilities as applicable to the procedures above.

J Cofer
Trainee

3-25-14
Date

**Visual Examination (VE)
 Operator/Independent Technical Reviewer (ITR) for
 Contact-Handled (CH) Waste
 Qualification Card**

Name: **Jason Cofer**

Additional Training Requirements

1. WAP/QAPJP Briefing and Test (One-time Requirement)	<i>Cheryl King</i> NTPC Training	04-01-14 Date
2. CCP-VE-101, Visual Examination (VE) TRU Waste Characterization Briefing (Always Required)	<i>Cheryl King</i> NTPC Training	04-01-14 Date
3. VE-TEST-01, Visual Examination (VE) Operator/ITR Comprehensive Examination (Always Required)	<i>Cheryl King</i> NTPC Training	04-01-14 Date

Formal Training	On-the-Job Training (OJT) Knowledge Requirements (Required at Initial Qualification and Full Requalification)	Visual Examination Expert (VEE) Subject Matter Expert (SME)/OJT Signature/Date
CCP-PO-001	1. List the Quality Assurance objectives validated by VE.	<i>Jason Cofer</i> 3-25-14
CCP-QP-002	2. State the purpose of the List of Qualified Individuals (LOQI).	<i>Jason Cofer</i> 3-25-14
CCP-QP-005	3. State when a nonconformance report (NCR) should be prepared and who is responsible to initiate it.	<i>Jason Cofer</i> 3-25-14
	4. Describe how nonconforming items are documented.	<i>Jason Cofer</i> 3-25-14
	5. Describe how nonconforming items are controlled to prevent their use.	<i>Jason Cofer</i> 3-25-14
	6. State who has the responsibility to validate the NCR once initiated.	<i>Jason Cofer</i> 3-25-14
	7. Describe how to revise an NCR.	<i>Jason Cofer</i> 3-25-14
	8. Describe how to void an NCR.	<i>Jason Cofer</i> 3-25-14
WP 15-GM1002	9. Describe the purpose of the WIPP Form process.	<i>Jason Cofer</i> 3-25-14
	10. State the person responsible for originating a WIPP Form.	<i>Jason Cofer</i> 3-25-14
	11. Describe how WIPP Forms are documented.	<i>Jason Cofer</i> 3-25-14

**Visual Examination (VE)
 Operator/Independent Technical Reviewer (ITR) for
 Contact-Handled (CH) Waste
 Qualification Card**

Name: Jason Cofer

CCP-QP-008	12. Describe who has responsibility for processing WIPP Forms, approving Corrective Action Plans, and approving closure of WIPP Forms.	<i>Jason Cofer</i> 3-25-14
	13. Describe actions personnel may take when conditions adverse to quality are discovered.	<i>Jason Cofer</i> 3-25-14
	14. List the responsibilities of record generators.	<i>Jason Cofer</i> 3-25-14
	15. State the storage and control requirements for records.	<i>Jason Cofer</i> 3-25-14
	16. Explain the process and proper method to make corrections or revisions to records.	<i>Jason Cofer</i> 3-25-14
CCP-QP-010	17. State the importance of using approved documents.	<i>Jason Cofer</i> 3-25-14
	18. State when to verify a document revision.	<i>Jason Cofer</i> 3-25-14
CCP-QP-016	19. List the Measuring & Testing Equipment (M&TE) items used during VE.	<i>Jason Cofer</i> 3-25-14
CCP-TP-113/ CCP-VE-101 Briefing	20. Explain the purpose of VE.	<i>Jason Cofer</i> 3-25-14
	21. What are the 2 methods used in the VE process?	<i>Jason Cofer</i> 3-25-14
	22. Who makes the determination of the method used?	<i>Jason Cofer</i> 3-25-14
	23. Describe the unit of measurement for weights to be recorded for VE.	<i>Jason Cofer</i> 3-25-14
	24. Describe where to obtain the tare weight of a waste container.	<i>Jason Cofer</i> 3-25-14
	25. Describe where to obtain the gross weight of a waste container.	<i>Jason Cofer</i> 3-25-14
	26. State the number of waste containers allowed per Batch Data Report (BDR).	<i>Jason Cofer</i> 3-25-14
	27. State how often a camera check is performed when using Method #1.	<i>Jason Cofer</i> 3-25-14
	28. Define "layers of confinement."	<i>Jason Cofer</i> 3-25-14
	29. Describe how to determine "maximum" layers of confinement.	<i>Jason Cofer</i> 3-25-14

Visual Examination (VE)
Operator/Independent Technical Reviewer (ITR) for
Contact-Handled (CH) Waste
Qualification Card

Name: Jason Cofer

30. Describe authorized methods of closure of a liner bag.	<i>Jason Cofer</i> 3-25-14
31. Describe how to determine Volume Utilization Percentage (VUP).	<i>Jason Cofer</i> 3-25-14
32. Describe the actions taken if prohibited items are found.	<i>Jason Cofer</i> 3-25-14
33. Discuss the requirements for packaging of sharp or heavy objects.	<i>Jason Cofer</i> 3-25-14
34. State the waste material parameters (WMP).	<i>Jason Cofer</i> 3-25-14
35. State how often a scale operational check is performed.	<i>Jason Cofer</i> 3-25-14
36. Describe the information that should be recorded when describing waste items.	<i>Jason Cofer</i> 3-25-14
37. State the criteria for a rigid liner to be considered vented.	<i>Jason Cofer</i> 3-25-14
38. State three examples of potentially "unsafe" packages/items that may be found within a waste container.	<i>Jason Cofer</i> 3-25-14
39. State five examples of prohibited items.	<i>Jason Cofer</i> 3-25-14
40. Describe how a non-transparent container is handled when liquid is suspected.	<i>Jason Cofer</i> 3-25-14
41. State the acceptable liquid limits in a characterized container.	<i>Jason Cofer</i> 3-25-14
42. Explain the responsibilities and functions of the Independent Technical Reviewer (ITR).	<i>Jason Cofer</i> 3-25-14
43. Describe the conditions that would generate an NCR during the VE process.	<i>Jason Cofer</i> 3-25-14
44. Define how often calibration due dates should be checked on certified equipment.	<i>Jason Cofer</i> 3-25-14
45. Define the increments in which the fill percent are recorded.	<i>Jason Cofer</i> 3-25-14
46. Explain who is allowed to make data changes on data sheets.	<i>Jason Cofer</i> 3-25-14

**Visual Examination (VE)
 Operator/Independent Technical Reviewer (ITR) for
 Contact-Handled (CH) Waste
 Qualification Card**

Name: Jason Cofer

Formal Training	OJT Practical Requirements ¹ (This section must be performed in the presence of a VEE) (Always Required)		VEE SME/OJT Signature/Date
CCP-TP-113	1. Perform audio/video equipment operational checks.	P (S)	<i>Jason Cofer</i> 3-25-14
	2. Perform pre-use scale calibration verification.	P (S)	<i>Jason Cofer</i> 3-25-14
	3. Determine layers of confinement.	(P) S	<i>Jason Cofer</i> 3-25-14
	4. Verify the physical form of the waste matches the waste description.	(P) S	<i>Jason Cofer</i> 3-25-14
	5. Determine the WMP(s).	(P) S	<i>Jason Cofer</i> 3-25-14
	6. Estimate the weight of each WMP.	(P) S	<i>Jason Cofer</i> 3-25-14
	7. Obtain weight of each WMP.	(P) S	<i>Jason Cofer</i> 3-25-14
	8. Determine the VUP.	(P) S	<i>Jason Cofer</i> 3-25-14
	9. Obtain the output weight for the waste container.	(P) S	<i>Jason Cofer</i> 3-25-14
	10. Prepare a BDR.	(P) S	<i>Jason Cofer</i> 3-25-14
	11. Demonstrate how to make changes/corrections to a BDR.	(P) S	<i>Jason Cofer</i> 3-25-14
	12. Complete an ITR.	(P) S	<i>Jason Cofer</i> 3-25-14

¹ For simulated steps that involve the recording of information, the steps can be satisfied by the trainee's ability to identify the specific location in the correct record form where actual data would be entered, and explain where the information would be obtained. All required calculations will actually be performed; for simulations, representative data will be used in lieu of actual data. Circle "P" if actually performed or "S" if requirement was simulated.

**Visual Examination (VE)
 Operator/Independent Technical Reviewer (ITR) for
 Contact-Handled (CH) Waste
 Qualification Card**

Name: Jason Cofer

Approvals	
I have completed formal training and received OJT for this position. I fully understand my responsibilities as a CH VE Operator/ITR.	<p align="right">Jason Cofer 04-01-14 3-25-14</p> <p>Trainee (printed name and signature) Date</p>
I have monitored the training of this individual and believe they are ready to perform the duties of a CH VE Operator/ITR. (Validation by the VEE SME/OJT instructor(s) involved in the training of this individual).	<p align="right">Anthony Hawley 3-25-14</p> <p>VEE SME/OJT Instructor (printed name and signature) Date</p>
	<p align="center">NA</p> <p>VEE SME/OJT Instructor (printed name and signature) Date</p>
I approve this employee to perform the duties of a CH VE Operator/ITR.	<p align="right">Beverly S. Schrock BSSchrock 4/1/14</p> <p>SPM (printed name and signature) Date</p>

Approved for Content & Format: Tommy Mojica (Approval on File) 09/23/2013
 SME/OJT Date

Approved for Applicability, Content & Format: Andrew Stallings (Approval on File) 09/23/2013
 Cognizant Engineer Date

Approved for Content: Richard Kantrowitz (Approval on File) 09/23/2013
 SPM Date

Approved for Applicability, Content, Format, & Use: A.J. Fisher (Approval on File) 09/23/2013
 Manager Responsible for Training Date

DIVIDER

PAGE

COPY

National TRU Program Certification
Effective Date: 09/23/2013

VE-01, Rev. 5
Page 1 of 6

**Visual Examination (VE)
Operator/Independent Technical Reviewer (ITR) for
Contact-Handled (CH) Waste
Qualification Card**

Name: **Derek Matheny**

Education/Experience

Resume documenting education and experience on file with National TRU Program Certification (NTPC) Training.

NTPC Training

Date

Cheryl Matheny

04-01-14

Job Specific Training

Initial Qualification

Requalification

Full Requalification

Qualification Limit

This qualification is valid for two (2) years.

If necessary, additional training may be required by the Site Project Manager (SPM) or the Manager Responsible for Training.

Unsatisfactory performance will result in disqualification by the Manager Responsible for Training. The candidate must successfully complete the entire qualification card to reestablish qualification.

This qualification card applies to all CH sites except for Idaho National Laboratory (INL) and Los Alamos National Laboratory (LANL) Off Site Source Recovery Program (OSRP). The qualification cards for these sites are VE-PIT-01 and VE-OSRP-01, respectively.

Requalification Requirements

Items required for requalification are identified by text.

Indoctrination

(Required at Initial Qualification and Full Requalification)

Initial/Indoctrination Reading:

1. WP 15-GM1002, *Issues Management Processing of WIPP Forms*
2. CCP-HSP-014, *Health and Safety Program Implementation for CCP*
3. CCP-PO-001, *CCP Transuranic Waste Characterization Quality Assurance Project Plan*
4. CCP-PO-002, *CCP Transuranic Waste Certification Plan*
5. CCP-PO-003, *CCP Transuranic Authorized Methods for Payload Control (CCP CH-TRAMPAC)*
6. CCP-PO-050, *CCP TRUPACT-III TRU Waste Authorized Methods for Payload Control (CCP TRUPACT-III TRAMPAC)*
7. CCP-QP-002, *CCP Training and Qualification Plan*
8. CCP-QP-005, *CCP TRU Nonconforming Item Reporting and Control*
9. CCP-QP-008, *CCP Records Management*
10. CCP-QP-010, *CCP Document Preparation, Approval, and Control*
11. CCP-QP-016, *CCP Control of Measuring and Testing Equipment*
12. CCP-QP-023, *CCP Handling, Storage, and Shipping*
13. CCP-TP-113, *CCP Standard Contact-Handled Waste Visual Examination*

I have read the listed Initial/Indoctrination Reading and understand my responsibilities as applicable to the procedures above.

ITR

Derek Matheny

3/25/14

Date

**Visual Examination (VE)
 Operator/Independent Technical Reviewer (ITR) for
 Contact-Handled (CH) Waste
 Qualification Card**

Name: Derek Matheny

Additional Training Requirements		
1. WAP/QAPJP Briefing and Test (One-time Requirement)	<i>Cheryl Hing</i> NTPC Training	04-01-14 Date
2. CCP-VE-101, Visual Examination (VE) TRU Waste Characterization Briefing (Always Required)	<i>Cheryl Hing</i> NTPC Training	04-01-14 Date
3. VE-TEST-01, Visual Examination (VE) Operator/ITR Comprehensive Examination (Always Required)	<i>Cheryl Hing</i> NTPC Training	04-01-14 Date
Formal Training	On-the-Job Training (OJT) Knowledge Requirements (Required at Initial Qualification and Full Requalification)	Visual Examination Expert (VEE) Subject Matter Expert (SME)/OJT Signature/Date
CCP-PO-001	1. List the Quality Assurance objectives validated by VE.	<i>Derek Matheny</i> 3-25-14
CCP-QP-002	2. State the purpose of the List of Qualified Individuals (LOQI).	<i>Derek Matheny</i> 3-25-14
CCP-QP-005	3. State when a nonconformance report (NCR) should be prepared and who is responsible to initiate it.	<i>Derek Matheny</i> 3-25-14
	4. Describe how nonconforming items are documented.	<i>Derek Matheny</i> 3-25-14
	5. Describe how nonconforming items are controlled to prevent their use.	<i>Derek Matheny</i> 3-25-14
	6. State who has the responsibility to validate the NCR once initiated.	<i>Derek Matheny</i> 3-25-14
	7. Describe how to revise an NCR.	<i>Derek Matheny</i> 3-25-14
	8. Describe how to void an NCR.	<i>Derek Matheny</i> 3-25-14
	9. Describe the purpose of the WIPP Form process.	<i>Derek Matheny</i> 3-25-14
WP 15-GM1002	10. State the person responsible for originating a WIPP Form.	<i>Derek Matheny</i> 3-25-14
	11. Describe how WIPP Forms are documented.	<i>Derek Matheny</i> 3-25-14

**Visual Examination (VE)
 Operator/Independent Technical Reviewer (ITR) for
 Contact-Handled (CH) Waste
 Qualification Card**

Name: Derek Matheny

CCP-QP-008	12. Describe who has responsibility for processing WIPP Forms, approving Corrective Action Plans, and approving closure of WIPP Forms.	<i>Derek Matheny</i>	3-25-14
	13. Describe actions personnel may take when conditions adverse to quality are discovered.	<i>Derek Matheny</i>	3-25-14
	14. List the responsibilities of record generators.	<i>Derek Matheny</i>	3-25-14
	15. State the storage and control requirements for records.	<i>Derek Matheny</i>	3-25-14
CCP-QP-010	16. Explain the process and proper method to make corrections or revisions to records.	<i>Derek Matheny</i>	3-25-14
	17. State the importance of using approved documents.	<i>Derek Matheny</i>	3-25-14
	18. State when to verify a document revision.	<i>Derek Matheny</i>	3-25-14
CCP-QP-016	19. List the Measuring & Testing Equipment (M&TE) items used during VE.	<i>Derek Matheny</i>	3-25-14
CCP-TP-113/ CCP-VE-101 Briefing	20. Explain the purpose of VE.	<i>Derek Matheny</i>	3-25-14
	21. What are the 2 methods used in the VE process?	<i>Derek Matheny</i>	3-25-14
	22. Who makes the determination of the method used?	<i>Derek Matheny</i>	3-25-14
	23. Describe the unit of measurement for weights to be recorded for VE.	<i>Derek Matheny</i>	3-25-14
	24. Describe where to obtain the tare weight of a waste container.	<i>Derek Matheny</i>	3-25-14
	25. Describe where to obtain the gross weight of a waste container.	<i>Derek Matheny</i>	3-25-14
	26. State the number of waste containers allowed per Batch Data Report (BDR).	<i>Derek Matheny</i>	3-25-14
	27. State how often a camera check is performed when using Method #1.	<i>Derek Matheny</i>	3-25-14
	28. Define "layers of confinement."	<i>Derek Matheny</i>	3-25-14
	29. Describe how to determine "maximum" layers of confinement.	<i>Derek Matheny</i>	3-25-14

Visual Examination (VE)
Operator/Independent Technical Reviewer (ITR) for
Contact-Handled (CH) Waste
Qualification Card

Name: Derek Matheny

30. Describe authorized methods of closure of a liner bag.	<i>Derek Matheny</i> 3-25-14
31. Describe how to determine Volume Utilization Percentage (VUP).	<i>Derek Matheny</i> 3-25-14
32. Describe the actions taken if prohibited items are found.	<i>Derek Matheny</i> 3-25-14
33. Discuss the requirements for packaging of sharp or heavy objects.	<i>Derek Matheny</i> 3-25-14
34. State the waste material parameters (WMP).	<i>Derek Matheny</i> 3-25-14
35. State how often a scale operational check is performed.	<i>Derek Matheny</i> 3-25-14
36. Describe the information that should be recorded when describing waste items.	<i>Derek Matheny</i> 3-25-14
37. State the criteria for a rigid liner to be considered vented.	<i>Derek Matheny</i> 3-25-14
38. State three examples of potentially "unsafe" packages/items that may be found within a waste container.	<i>Derek Matheny</i> 3-25-14
39. State five examples of prohibited items.	<i>Derek Matheny</i> 3-25-14
40. Describe how a non-transparent container is handled when liquid is suspected.	<i>Derek Matheny</i> 3-25-14
41. State the acceptable liquid limits in a characterized container.	<i>Derek Matheny</i> 3-25-14
42. Explain the responsibilities and functions of the Independent Technical Reviewer (ITR).	<i>Derek Matheny</i> 3-25-14
43. Describe the conditions that would generate an NCR during the VE process.	<i>Derek Matheny</i> 3-25-14
44. Define how often calibration due dates should be checked on certified equipment.	<i>Derek Matheny</i> 3-25-14
45. Define the increments in which the fill percent are recorded.	<i>Derek Matheny</i> 3-25-14
46. Explain who is allowed to make data changes on data sheets.	<i>Derek Matheny</i> 3-25-14

**Visual Examination (VE)
 Operator/Independent Technical Reviewer (ITR) for
 Contact-Handled (CH) Waste
 Qualification Card**

Name: **Derek Matheny**

Formal Training	OJT Practical Requirements ¹ (This section must be performed in the presence of a VEE) (Always Required)		VEE SME/OJT Signature/Date
CCP-TP-113	1. Perform audio/video equipment operational checks.	P (S)	<i>Derek Matheny</i> 3-25-14
	2. Perform pre-use scale calibration verification.	P (S)	<i>Derek Matheny</i> 3-25-14
	3. Determine layers of confinement.	(P) S	<i>Derek Matheny</i> 3-25-14
	4. Verify the physical form of the waste matches the waste description.	(P) S	<i>Derek Matheny</i> 3-25-14
	5. Determine the WMP(s).	(P) S	<i>Derek Matheny</i> 3-25-14
	6. Estimate the weight of each WMP.	(P) S	<i>Derek Matheny</i> 3-25-14
	7. Obtain weight of each WMP.	(P) S	<i>Derek Matheny</i> 3-25-14
	8. Determine the VUP.	(P) S	<i>Derek Matheny</i> 3-25-14
	9. Obtain the output weight for the waste container.	(P) S	<i>Derek Matheny</i> 3-25-14
	10. Prepare a BDR.	(P) S	<i>Derek Matheny</i> 3-25-14
	11. Demonstrate how to make changes/corrections to a BDR.	(P) S	<i>Derek Matheny</i> 3-25-14
	12. Complete an ITR.	(P) S	<i>Derek Matheny</i> 3-25-14

¹ For simulated steps that involve the recording of information, the steps can be satisfied by the trainee's ability to identify the specific location in the correct record form where actual data would be entered, and explain where the information would be obtained. All required calculations will actually be performed; for simulations, representative data will be used in lieu of actual data. Circle "P" if actually performed or "S" if requirement was simulated.

**Visual Examination (VE)
 Operator/Independent Technical Reviewer (ITR) for
 Contact-Handled (CH) Waste
 Qualification Card**

Name: Derek Matheny

Approvals	
I have completed formal training and received OJT for this position. I fully understand my responsibilities as a CH VE Operator/ITR.	<p align="center"><i>Derek Matheny</i> Trainee (printed name and signature) 3/25/17 Date</p>
I have monitored the training of this individual and believe they are ready to perform the duties of a CH VE Operator/ITR. (Validation by the VEE SME/OJT instructor(s) involved in the training of this individual).	<p align="center"><i>Anthony Harley</i> VEE SME/OJT Instructor (printed name and signature) 3-25-14 Date</p>
	<p align="center">NA VEE SME/OJT Instructor (printed name and signature) Date</p>
I approve this employee to perform the duties of a CH VE Operator/ITR.	<p align="center"><i>Beverly S. Schrock</i> SPM (printed name and signature) 4/1/14 Date</p>

- Approved for Content & Format: Tommy Mojica (Approval on File) 09/23/2013
 SME/OJT Date

- Approved for Applicability, Content & Format: Andrew Stallings (Approval on File) 09/23/2013
 Cognizant Engineer Date

- Approved for Content: Richard Kantrowitz (Approval on File) 09/23/2013
 SPM Date

- Approved for Applicability, Content, Format, & Use: A.J. Fisher (Approval on File) 09/23/2013
 Manager Responsible for Training Date

DIVIDER

PAGE

COPY

National TRU Program Certification
Effective Date: 09/23/2013

VE-01, Rev. 5
Page 1 of 6

**Visual Examination (VE)
Operator/Independent Technical Reviewer (ITR) for
Contact-Handled (CH) Waste
Qualification Card**

Name: **Chuck (David) Wallace**

Education/Experience

Resume documenting education and experience on file with National TRU Program Certification (NTPC) Training.

Cheryl Amigo
NTPC Training

04-01-14
Date

Job Specific Training

Initial Qualification Requalification Full Requalification

Qualification Limit

This qualification is valid for two (2) years.

If necessary, additional training may be required by the Site Project Manager (SPM) or the Manager Responsible for Training.

Unsatisfactory performance will result in disqualification by the Manager Responsible for Training. The candidate must successfully complete the entire qualification card to reestablish qualification.

This qualification card applies to all CH sites except for Idaho National Laboratory (INL) and Los Alamos National Laboratory (LANL) Off Site Source Recovery Program (OSRP). The qualification cards for these sites are VE-PIT-01 and VE-OSRP-01, respectively.

Requalification Requirements

Items required for requalification are identified by text.

Indoctrination

(Required at Initial Qualification and Full Requalification)

Initial/Indoctrination Reading:

1. WP 15-GM1002, *Issues Management Processing of WIPP Forms*
2. CCP-HSP-014, *Health and Safety Program Implementation for CCP*
3. CCP-PO-001, *CCP Transuranic Waste Characterization Quality Assurance Project Plan*
4. CCP-PO-002, *CCP Transuranic Waste Certification Plan*
5. CCP-PO-003, *CCP Transuranic Authorized Methods for Payload Control (CCP CH-TRAMPAC)*
6. CCP-PO-050, *CCP TRUPACT-III TRU Waste Authorized Methods for Payload Control (CCP TRUPACT-III TRAMPAC)*
7. CCP-QP-002, *CCP Training and Qualification Plan*
8. CCP-QP-005, *CCP TRU Nonconforming Item Reporting and Control*
9. CCP-QP-008, *CCP Records Management*
10. CCP-QP-010, *CCP Document Preparation, Approval, and Control*
11. CCP-QP-016, *CCP Control of Measuring and Testing Equipment*
12. CCP-QP-023, *CCP Handling, Storage, and Shipping*
13. CCP-TP-113, *CCP Standard Contact-Handled Waste Visual Examination*

I have read the listed Initial/Indoctrination Reading and understand my responsibilities as applicable to the procedures above.

David Wallace
Trainee

03/25/14
Date

**Visual Examination (VE)
 Operator/Independent Technical Reviewer (ITR) for
 Contact-Handled (CH) Waste
 Qualification Card**

Name: Chuck (David) Wallace

Additional Training Requirements

1. WAP/QAPJP Briefing and Test <i>(One-time Requirement)</i>	<i>Cheryl King</i>	<i>04-01-14</i>
	NTPC Training	Date
2. CCP-VE-101, <i>Visual Examination (VE) TRU Waste Characterization Briefing</i> <i>(Always Required)</i>	<i>Cheryl King</i>	<i>04-01-14</i>
	NTPC Training	Date
3. VE-TEST-01, <i>Visual Examination (VE) Operator/ITR Comprehensive Examination</i> <i>(Always Required)</i>	<i>Cheryl King</i>	<i>04-01-14</i>
	NTPC Training	Date

Formal Training	On-the-Job Training (OJT) Knowledge Requirements <i>(Required at Initial Qualification and Full Requalification)</i>	Visual Examination Expert (VEE) Subject Matter Expert (SME)/OJT Signature/Date
CCP-PO-001	1. List the Quality Assurance objectives validated by VE.	<i>Chuck Wallace</i> 3-25-14
CCP-QP-002	2. State the purpose of the List of Qualified Individuals (LOQI).	<i>Chuck Wallace</i> 3-25-14
CCP-QP-005	3. State when a nonconformance report (NCR) should be prepared and who is responsible to initiate it.	<i>Chuck Wallace</i> 3-25-14
	4. Describe how nonconforming items are documented.	<i>Chuck Wallace</i> 3-25-14
	5. Describe how nonconforming items are controlled to prevent their use.	<i>Chuck Wallace</i> 3-25-14
	6. State who has the responsibility to validate the NCR once initiated.	<i>Chuck Wallace</i> 3-25-14
	7. Describe how to revise an NCR.	<i>Chuck Wallace</i> 3-25-14
	8. Describe how to void an NCR.	<i>Chuck Wallace</i> 3-25-14
WP 15-GM1002	9. Describe the purpose of the WIPP Form process.	<i>Chuck Wallace</i> 3-25-14
	10. State the person responsible for originating a WIPP Form.	<i>Chuck Wallace</i> 3-25-14
	11. Describe how WIPP Forms are documented.	<i>Chuck Wallace</i> 3-25-14

**Visual Examination (VE)
 Operator/Independent Technical Reviewer (ITR) for
 Contact-Handled (CH) Waste
 Qualification Card**

Name: Chuck (David) Wallace

CCP-QP-008	12. Describe who has responsibility for processing WIPP Forms, approving Corrective Action Plans, and approving closure of WIPP Forms.	<i>Chuck Wallace</i> 3-25-14
	13. Describe actions personnel may take when conditions adverse to quality are discovered.	<i>Chuck Wallace</i> 3-25-14
	14. List the responsibilities of record generators.	<i>Chuck Wallace</i> 3-25-14
	15. State the storage and control requirements for records.	<i>Chuck Wallace</i> 3-25-14
CCP-QP-010	16. Explain the process and proper method to make corrections or revisions to records.	<i>Chuck Wallace</i> 3-25-14
	17. State the importance of using approved documents.	<i>Chuck Wallace</i> 3-25-14
	18. State when to verify a document revision.	<i>Chuck Wallace</i> 3-25-14
CCP-QP-016	19. List the Measuring & Testing Equipment (M&TE) items used during VE.	<i>Chuck Wallace</i> 3-25-14
CCP-TP-113/ CCP-VE-101 Briefing	20. Explain the purpose of VE.	<i>Chuck Wallace</i> 3-25-14
	21. What are the 2 methods used in the VE process?	<i>Chuck Wallace</i> 3-25-14
	22. Who makes the determination of the method used?	<i>Chuck Wallace</i> 3-25-14
	23. Describe the unit of measurement for weights to be recorded for VE.	<i>Chuck Wallace</i> 3-25-14
	24. Describe where to obtain the tare weight of a waste container.	<i>Chuck Wallace</i> 3-25-14
	25. Describe where to obtain the gross weight of a waste container.	<i>Chuck Wallace</i> 3-25-14
	26. State the number of waste containers allowed per Batch Data Report (BDR).	<i>Chuck Wallace</i> 3-25-14
	27. State how often a camera check is performed when using Method #1.	<i>Chuck Wallace</i> 3-25-14
	28. Define "layers of confinement."	<i>Chuck Wallace</i> 3-25-14
	29. Describe how to determine "maximum" layers of confinement.	<i>Chuck Wallace</i> 3-25-14

Visual Examination (VE)
Operator/Independent Technical Reviewer (ITR) for
Contact-Handled (CH) Waste
Qualification Card

Name: Chuck (David) Wallace

30. Describe authorized methods of closure of a liner bag.	<i>Chuck Wallace</i> 3-25-14
31. Describe how to determine Volume Utilization Percentage (VUP).	<i>Chuck Wallace</i> 3-25-14
32. Describe the actions taken if prohibited items are found.	<i>Chuck Wallace</i> 3-25-14
33. Discuss the requirements for packaging of sharp or heavy objects.	<i>Chuck Wallace</i> 3-25-14
34. State the waste material parameters (WMP).	<i>Chuck Wallace</i> 3-25-14
35. State how often a scale operational check is performed.	<i>Chuck Wallace</i> 3-25-14
36. Describe the information that should be recorded when describing waste items.	<i>Chuck Wallace</i> 3-25-14
37. State the criteria for a rigid liner to be considered vented.	<i>Chuck Wallace</i> 3-25-14
38. State three examples of potentially "unsafe" packages/items that may be found within a waste container.	<i>Chuck Wallace</i> 3-25-14
39. State five examples of prohibited items.	<i>Chuck Wallace</i> 3-25-14
40. Describe how a non-transparent container is handled when liquid is suspected.	<i>Chuck Wallace</i> 3-25-14
41. State the acceptable liquid limits in a characterized container.	<i>Chuck Wallace</i> 3-25-14
42. Explain the responsibilities and functions of the Independent Technical Reviewer (ITR).	<i>Chuck Wallace</i> 3-25-14
43. Describe the conditions that would generate an NCR during the VE process.	<i>Chuck Wallace</i> 3-25-14
44. Define how often calibration due dates should be checked on certified equipment.	<i>Chuck Wallace</i> 3-25-14
45. Define the increments in which the fill percent are recorded.	<i>Chuck Wallace</i> 3-25-14
46. Explain who is allowed to make data changes on data sheets.	<i>Chuck Wallace</i> 3-25-14

**Visual Examination (VE)
 Operator/Independent Technical Reviewer (ITR) for
 Contact-Handled (CH) Waste
 Qualification Card**

Name: Chuck (David) Wallace

Formal Training	OJT Practical Requirements' (This section must be performed in the presence of a VEE) (Always Required)		VEE SME/OJT Signature/Date
CCP-TP-113	1. Perform audio/video equipment operational checks.	P (S)	<i>Chuck Wallace</i> 3-25-14
	2. Perform pre-use scale calibration verification.	P (S)	<i>Chuck Wallace</i> 3-25-14
	3. Determine layers of confinement.	(P) S	<i>Chuck Wallace</i> 3-25-14
	4. Verify the physical form of the waste matches the waste description.	(P) S	<i>Chuck Wallace</i> 3-25-14
	5. Determine the WMP(s).	(P) S	<i>Chuck Wallace</i> 3-25-14
	6. Estimate the weight of each WMP.	(P) S	<i>Chuck Wallace</i> 3-25-14
	7. Obtain weight of each WMP.	(P) S	<i>Chuck Wallace</i> 3-25-14
	8. Determine the VUP.	(P) S	<i>Chuck Wallace</i> 3-25-14
	9. Obtain the output weight for the waste container.	(P) S	<i>Chuck Wallace</i> 3-25-14
	10. Prepare a BDR.	(P) S	<i>Chuck Wallace</i> 3-25-14
	11. Demonstrate how to make changes/corrections to a BDR.	(P) S	<i>Chuck Wallace</i> 3-25-14
	12. Complete an ITR.	(P) S	<i>Chuck Wallace</i> 3-25-14

* For simulated steps that involve the recording of information, the steps can be satisfied by the trainee's ability to identify the specific location in the correct record form where actual data would be entered, and explain where the information would be obtained. All required calculations will actually be performed. For simulations, representative data will be used in lieu of actual data. Circle "P" if actually performed or "S" if requirement was simulated.

**Visual Examination (VE)
 Operator/Independent Technical Reviewer (ITR) for
 Contact-Handled (CH) Waste
 Qualification Card**

Name: Chuck (David) Wallace

Approvals	
I have completed formal training and received OJT for this position. I fully understand my responsibilities as a CH VE Operator/ITR.	<p><i>David Wallace</i> <i>David Wallace</i> 03-25-14 Trainee (printed name and signature) Date</p>
I have monitored the training of this individual and believe they are ready to perform the duties of a CH VE Operator/ITR. (Validation by the VEE SME/OJT instructor(s) involved in the training of this individual).	<p><i>Anthony Harley</i> 3-25-14 VEE SME/OJT Instructor (printed name and signature) Date</p>
	<p>NA VEE SME/OJT Instructor (printed name and signature) Date</p>
I approve this employee to perform the duties of a CH VE Operator/ITR.	<p><i>Beverly S. Schrock</i> <i>BSSchrock</i> 4/1/14 SPM (printed name and signature) Date</p>

- Approved for Content & Format: Tommy Mojica (Approval on File) 09/23/2013
 SME/OJT Date
- Approved for Applicability, Content & Format: Andrew Stallings (Approval on File) 09/23/2013
 Cognizant Engineer Date
- Approved for Content: Richard Kantrowitz (Approval on File) 09/23/2013
 SPM Date
- Approved for Applicability, Content, Format, & Use: A.J. Fisher (Approval on File) 09/23/2013
 Manager Responsible for Training Date

VF3

COPY

VE3

Armijo, Cheryl - TFE

From: Schrock, Beverly - NWP
Sent: Monday, October 14, 2013 3:06 PM
To: CCP Training
Cc: Lee, Ronnie - NWP; Stallings, Andrew - NWP; Harley, Anthony - ORNL
Subject: VEE Appointment Letter for Anthony Harley
Attachments: Anthony Harley NDE AK List.pdf

Ladies,

I have evaluated Anthony Harley's work history and performance and have determined the following. Anthony is currently qualified as a CH VE Operator at the LANL project and also as a CH and RH VE Operator at SRS and has sufficient experience to be appointed as a Visual Examination Expert for the CCP ORNL Project at the TWPC Process Building. This will be for the CH VE process at this location.

I have attached a copy of Anthony's CCP NDE List of Applicable Waste Stream Qualified List as well.

Please take the appropriate action on this appointment. Please call if you have any questions.

Thank you,

Beverly S. Schrock

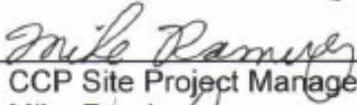
Site Project Manager
Central Characterization Program
Nuclear Waste Partnership, LLC
Contractor for the U.S. Department of Energy
(575) 234-7444
(575) 706-0809 Cell

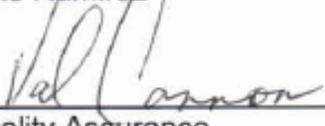


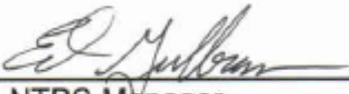
TABLE OF AUDITED DOCUMENTS			
NUMBER	PROCEDURE NUMBER	REV	PROCEDURE TITLE
1.	CCP-PO-001	21	CCP Transuranic Waste Characterization Quality Assurance Project Plan
2.	CCP-PO-002	27	CCP Transuranic Waste Certification Plan
3.	CCP-PO-005	24	CCP Conduct of Operations
4.	CCP-PO-027	5	CCP/TRU Waste Processing Center/Oakridge National Laboratory Interface Document
5.	CCP-QP-002	37	CCP Training and Qualification Plan
6.	CCP-QP-005	24	CCP TRU Nonconforming Item Reporting and Control
7.	CCP-QP-008	22	CCP Records Management
8.	CCP-QP-010	24	CCP Document Preparation, Approval, and Control
9.	CCP-QP-016	19	CCP Control of Measuring and Testing Equipment
10.	CCP-QP-017	4	CCP Identification and Control of Items
11.	CCP-QP-021	10	CCP Surveillance Program
12.	CCP-QP-022	14	CCP Software Quality Assurance Plan
13.	CCP-QP-028	15	CCP Records Filing, Inventorying, Scheduling, and Dispositioning
14.	CCP-TP-113	18	CCP Standard Contact-Handled Waste Visual Examination
15.	WP 13-QA.03	23	Quality Assurance Independent Assessment Program
16.	WP 15-GM1002	2	Issues Management Processing of WIPP Forms

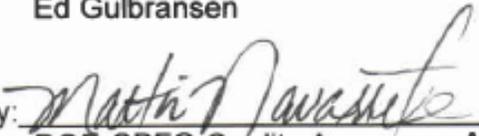
CCP-PO-001
Revision 21

CCP Transuranic Waste
Characterization Quality Assurance
Project Plan

Approved by:  Date: 4-16-13
CCP Site Project Manager
Mike Ramirez

Approved by:  Date: 4-16-13
Quality Assurance
Val Cannon

Approved by:  Date: 4-16-13
NTPC Manager
Ed Gulbransen

Approved by:  Date: 4-17-13
DOE-CBFO Quality Assurance Acting Director
Martin Navarrete

Approved by:  Date: 4-17-13
DOE-CBFO
Office of National TRU Program Director
for J.R. Stroble

RECORD OF REVISION

Revision Number	Date Approved	Description of Revision
3	01/14/2002	Added Tables B-9, B-10, and B-11; Revised the CCP Organization Chart, Figure A-1; and made numerous editorial corrections.
4	05/31/2002	Revised the CCP Organization Chart, Figure A-1 and added 3 new positions in the responsibilities Section A-4; corrected an error in Table B3-1; revised Section B4-2; revised Sections B3-10, B3-12, B-4, and subsections, and revised Tables B3-11, B3-12, and B3-13 to reflect the current WAP.
5	02/05/2003	Revised the CCP Organization Chart, Figure A-1 and section A-4c to update to the Vice President of National TRU Program Division title. Changes made to implement the Drum Age Criteria (DAC) permit Modification.
6	06/11/2003	Updated to Revision 5 of the QAPD.
7	01/08/2004	Added procedures to Table B-9 and Table B-11.
8	03/15/2004	Added procedures to Table B-9, Table B-10 and Table B-11. Modified Site Project Quality Assurance Officer description and CCP Organization chart. Updated Table B1-2, Table B3-3, Section B3-5 to reflect the WAP. Updated Table B3-6, Table B4, Table B1-4, Section B-3a(2), B-3d(1)(a), Table B-1, and Table B-8 to delete PCBs. Section B-1c, 6 th bullet revised to reflect the language of the WAP.
9	01/14/05	Revised to add procedures to Table B-9, Table B-10, and Table B-11. Incorporated CBFO DRR comments.
10	02/24/05	Revised to add procedure to table B-11, to incorporate LANL Off-Site Recovery Program Project Scope.
11	03/10/2005	Revised to add procedures to Section B1-2a and Table B-11. Added new table, Table B-9A, Solids Sampling Procedures Used by CCP.
12	03/22/2006	Revised procedures tables, Added new Table B-9, Listing of Permitted hazardous waste numbers and updated responsibilities.

RECORD OF REVISION (Continued)

Revision Number	Date Approved	Description of Revision
13	11/16/2006	Revised to implement changes to the Waste Isolation Pilot Plant Hazardous Waste Facility Permit requirements resulting from the Section 311/RH PMR.
14	03/28/2007	Revised procedure tables to add references to sections implemented by the procedure, and to align the wording of Section B7-2 with the wording in the permit.
15	08/10/2007	Revised to remove Visual Examination (VE) Expert decisions and signature and date from Table B3-11, Testing Batch Data Report Contents. Added the Idaho National Laboratory (INL) procedures to Attachment 1, Implementing Procedures.
16	10/31/2007	Revised to incorporate statistical terminology and text changes included in September 2007 Class 1 Permit Notifications and update Attachment 1, Implementing Procedures.
17	06/23/2009	Updated to agree with the Waste Isolation Pilot Plant (WIPP) Hazardous Waste Facility Permit Class 1 Modification dated July 2008.
18	06/30/2010	Revised to incorporate modifications to the Hazardous Waste Facility Permit. To make editorial changes that are needed and to change the Waste Isolation Pilot Plant (WIPP), Waste Information System (WWIS) to WWIS/Waste Data System (WDS).
19	12/29/2010	Revised to include changes from Permit Renewal.
20	06/16/2011	Revised to incorporate Class 2 Permit Modification (Transuranic Package Transporter Model III and Standard Large Box 2).
21	05/31/2013	Revised to clarify hierarchy of documents, adding Nuclear Waste Partnership (NWP) LLC, 13-1, <i>Quality Assurance Program Description</i> , also revised due to the Class 2 permit modification request (PMR) to the Waste Isolation Pilot Plant (WIPP) Permit, and made other administrative changes as needed.

TABLE OF CONTENTS

A	INTRODUCTION	8
A-1	Background.....	8
A-2	Scope.....	9
B	PROJECT DESCRIPTION	9
B-1	Central Characterization Program Organization and Responsibilities	10
B-2	Central Characterization Program (CCP) Manager	10
B-3	Site Project Manager	10
C	WASTE ANALYSIS PLAN.....	13
C-0	Introduction and Attachment Highlights	13
C-0a	Waste Characterization.....	14
C-0b	AK Sufficiency Determination.....	17
C-0c	Waste Stream Profile Form Completion.....	20
C-0d	Waste Confirmation.....	20
C-1	Identification of TRU Waste to be Managed at the WIPP Facility	21
C-1a	Waste Stream Identification	21
C-1b	Waste Summary Category Groups and Hazardous Waste Accepted at the WIPP Facility	21
C-1c	Waste Prohibited at the WIPP Facility.....	21
C-1d	Control of Waste Acceptance.....	23
C-1e	Waste Generating Processes at the WIPP Facility	23
C-2	Waste Characterization Program Requirements and Waste Characterization Parameters	23
C-3	Generator Waste Characterization Methods.....	25
C-3a	Acceptable Knowledge.....	25
C-3b	Radiography and Visual Examination	25
C-4	Data Verification and Quality Assurance.....	26
C-4a	Data Generation and Project Level Verification Requirements	27
C-4a(1)	Data Quality Objectives	27
C-4a(2)	Quality Assurance Objectives	28
C-4a(3)	Data Generation	28
C-4a(4)	Data Verification	28
C-4a(5)	Data Transmittal	29
C-4a(6)	Records Management	29
C-5	Permittee Level Waste Screening and Verification of TRU Mixed Waste	30
C-5a	Phase I Waste Stream Screening and Verification	30
C-5a(1)	WWIS/WDS Description	32
C-5a(2)	Examination of the Waste Stream Profile Form and Container Data Checks.....	32
C-5a(3)	Audit and Surveillance Program	33
C-5b	Phase II Waste Shipment Screening and Verification	33

	C-5b(1)	Examination of the EPA Uniform Hazardous Waste Manifest and Associated Waste Tracking Information ..	34
	C-5b(2)	Examination of the Land Disposal Restriction Notice ...	34
	C-5b(3)	Verification	35
C-6		Permittees' Waste Shipment Screening QA/QC	35
C-7		Records Management and Reporting	35
	C-7a	General Requirements	36
	C-7b	Records Storage	36
C-8		Reporting	36
C1		WASTE CHARACTERIZATION TESTING METHODS	47
	C1-1	Radiography	47
	C1-2	Visual Examination	49
C2		RESERVED	52
C3		QUALITY ASSURANCE OBJECTIVES AND DATA VALIDATION TECHNIQUES FOR WASTE CHARACTERIZATION METHODS	53
	C3-1	Validation Methods	53
	C3-2	Nondestructive Examination Methods	54
	C3-2a	Radiography (T53, T508)	54
	C3-2b	Visual Examination (T6, T113, T163, T500).....	55
	C3-3	Acceptable Knowledge (T5).....	55
	C3-4	Data Review, Validation, and Verification Requirements	56
	C3-4a	Data Generation Level (T6, T32, T53, T106, T113, T143, T188, T500, T508)	57
	C3-4a(1)	Independent Technical Review (T6, T32, T53, T106, T113, T143, T188, T500, T508).....	58
	C3-4b	Project Level	59
	C3-4b(1)	Site Project Manager Review	59
	C3-4b(2)	Preparing SPM Summary and Data Validation Summary	60
	C3-4b(3)	Preparing Waste Stream Characterization Packages...	60
	C3-4c	Permittee Level	60
	C3-5	Reconciliation with Data Quality Objectives.....	60
	C3-5a	Reconciliation at the Project Level	61
	C3-5b	Reconciliation at the Permittee Level	61
	C3-6	Data Reporting Requirements	62
	C3-6a	Data Generation Level	62
	C3-6b	Project Level	62
	C3-6b(1)	Waste Stream Profile Form (T2)	63
	C3-6b(2)	Characterization Information Summary (T2).....	63
	C3-6b(3)	Waste Stream Characterization Package (T2)	64
	C3-6b(4)	WIPP Waste Information System Data Reporting (T30).....	65

C3-7	Nonconformances (Q5).....	65
C3-8	Special Training Requirements and Certifications (Q2)	67
C3-9	Changes to WAP Related Plans or Procedures.....	68
C4	ACCEPTABLE KNOWLEDGE.....	73
C4-1	Introduction	73
C4-2	Acceptable Knowledge Documentation	74
C4-2a	Required TRU Waste Management Program Information.....	74
C4-2b	Required TRU Waste Stream Information.....	75
C4-2c	Additional Acceptable Knowledge Information	76
C4-3	Acceptable Knowledge Training, Procedures, and Other Requirements	78
C4-3a	Qualifications and Training Requirements (Q2)	78
C4-3b	Acceptable Knowledge Assembly and Compilation	78
C4-3c	Criteria for Assembling an Acceptable Knowledge Record and Delineating the Waste Stream	80
C4-3d	AK Sufficiency Determination Request Contents (T5).....	81
C4-3e	Requirements for Re-evaluating Acceptable Knowledge Information (T5).....	82
C4-3f	Acceptable Knowledge Data Quality Requirements (T5)	83
C4-3g	Audits of Acceptable Knowledge.....	84
C5	QUALITY ASSURANCE PROJECT PLAN REQUIREMENTS	85
C5-1	Quality Assurance Project Plans.....	85
C5-2	Document Review, Approval, and Control (Q10)	85
C6	AUDIT AND SURVEILLANCE PROGRAM	89
C6-1	Introduction	89
C6-2	Audit Procedures	89
C6-3	Audit Position Functions	89
C6-4	Audit Conduct	89
C7	TRU WASTE CONFIRMATION.....	90
C7-1	Permittee Confirmation of TRU Mixed Waste	90
C7-1a	Permittee Confirmation of a Representative Subpopulation of the Waste.....	90
C7-1b	Radiography Methods Requirements.....	90
C7-1c	Visual Examination Methods Requirements.....	91
C7-2	Noncompliant Waste Identified During Waste Confirmation	92
C8	REFERENCES.....	94

LIST OF TABLES

Table C-1. Summary of Parameters, Characterization Methods, and Rationale for Transuranic Mixed Waste	37
Table C-2. Required Program Records Maintained in Generator/Storage Site Project Files.....	38
Table C-3. WIPP Waste Information System Data Fields ^a	39
Table C-4. Waste Tanks Subject to Exclusion	40
Table C-5. Listing of Permitted Hazardous Waste Numbers	41
Table C3-1. Waste Material Parameters and Descriptions.....	69
Table C3-2. Minimum Training and Qualification Requirements	70
Table C3-3. Testing Batch Data Report Contents	71

LIST OF FIGURES

Figure B-1. CCP Organization.....	12
Figure C-1. Waste Stream Profile Form (Example Only).....	42
Figure C-2. Waste Characterization Process	44
Figure C-3. TRU Mixed Waste Screening and Verification Flow Diagram.....	45

LIST OF ATTACHMENTS

Attachment 1 – Implementing Procedures	98
----------------------------------------------	----

A INTRODUCTION

The Central Characterization Program (CCP) is tasked with characterizing and certifying transuranic (TRU) waste for disposal at the Waste Isolation Pilot Plant (WIPP). Characterization consists of acceptable knowledge (AK), radiography and visual examination (VE). This work is conducted in accordance with the Nuclear Waste Partnership, LLC (NWP), *Quality Assurance Program Description* (QAPD) and this Quality Assurance Project Plan (QAPjP).

This QAPjP describes how waste characterization and certification by the CCP comply with NM 4890139088-TSDF, *Waste Isolation Pilot Plant Hazardous Waste Facility Permit* (HWFP), Attachment C - C6, *Waste Analysis Plan* (WAP) (New Mexico Environment Department [NMED]) and WP 13-1, the NWP QAPD. The format of this QAPjP parallels that of the WAP.

NOTE

Throughout this document, there are references to procedures that implement the requirements. These references appear as a letter and one to three digits in parenthesis where the requirement is stated. Document users should then be able to refer to Attachment 1, *Implementing Procedures*, where these references list the procedure number and title.

A-1 Background

The WAP is organized such that it specifies that the generator/storage sites (hereinafter referred to as "sites") conduct their own TRU waste characterization and certification, including their own data generation level and project level data validation and verification. However, some sites (typically small quantity sites) do not have the resources necessary to characterize and certify their TRU waste. Additionally, other sites have expressed interest in using subcontractors to augment their existing capabilities. The CCP was established to assist these sites as well as to provide cost-effective TRU waste characterization, confirmation, and certification, including data generation level and project level data validation and verification.

The CCP may provide its services to a site by contracting directly with that site. If this is the case, the scope of services provided by CCP are specified in a Statement of Work (SOW) issued by the site. The SOW also specifies health and safety requirements, quality requirements, and other requirements specific to that site. A site-specific interface document may also be prepared which provides more detail on the site-CCP interface.

The site has general management oversight responsibility for work performed by the CCP at the site. The site is responsible for ensuring that CCP conducts its activities in compliance with site requirements.

A-2 Scope

This QAPjP specifies quality requirements, management activities, and procedures necessary to meet the specific data quality objectives (DQOs) for TRU waste characterization as defined in the WAP and QAPD. Only TRU waste that has been characterized and certified in accordance with the WAP is shipped to the WIPP facility. TRU waste characterization and certification activities conducted by the CCP are performed in accordance with the requirements and implementing procedures identified in this QAPjP. In some cases, some characterization or certification activities are shared between the CCP and the Host site. The applicable implementing site documentation is specified in a SOW and supplemented by a site interface document, if required.

This QAPjP meets WAP characterization and certification requirements for contact-handled (CH) and remote-handled (RH) TRU waste. As used in this document, the term TRU waste includes TRU and TRU-mixed wastes. The term “characterization” is used where applicable to indicate the entire characterization process. Additionally, the WAP allows waste streams to be divided into waste stream lots. Therefore, the term waste stream may be used to indicate waste stream lots.

B PROJECT DESCRIPTION

Consistent with requirements in the WAP, CCP uses AK to initially characterize TRU waste. Section C4 of this QAPjP outlines the process used to characterize TRU waste using AK. AK documentation provides the basis for identifying the TRU waste eligible for WIPP disposal. The characterization process is based on the following:

- Waste considered for characterization is defense-related and has a TRU alpha activity greater than 100 nanocuries (nCi) per gram (g)
- Resource Conservation and Recovery Act (RCRA) hazardous waste determinations are made initially using AK for TRU waste streams

AK information for each waste stream is compiled in AK reports and supporting documentation. Based on AK, waste streams are delineated according to Summary Category Group, and waste matrix codes are assigned to each waste stream.

The CCP evaluates the characterization necessary to certify a particular waste stream. If additional characterization is needed to supplement site capabilities, the CCP uses mobile characterization facilities to perform characterization activities. Mobile characterization support is provided in accordance with this QAPjP. The CCP has the option to use data or transportation services from established TRU waste characterization activities at a U.S. Department of Energy (DOE)-Carlsbad Field Office (CBFO)-certified site.

B-1 Central Characterization Program Organization and Responsibilities

The CCP organization is shown in Figure B-1, CCP Organization, and responsibilities are described in the following sections. Figure B-1 includes generic CCP positions. More specific positions are described in the SOW or site interface plan.

B-2 Central Characterization Program (CCP) Manager

The CCP Manager is responsible for the day-to-day management and direction of CCP activities related to the characterization, certification, transportation, and disposal of TRU waste for DOE-CBFO. The CCP Manager is responsible for the following:

- Ensuring successful CCP/site interface
- Ensuring CCP plans and operations are coordinated, integrated, and consistent with DOE-CBFO programs, policies, and guidance
- Coordinating CCP activities and functioning as principal point of contact with DOE-CBFO and other regulating agencies
- Reviewing and approving this QAPjP

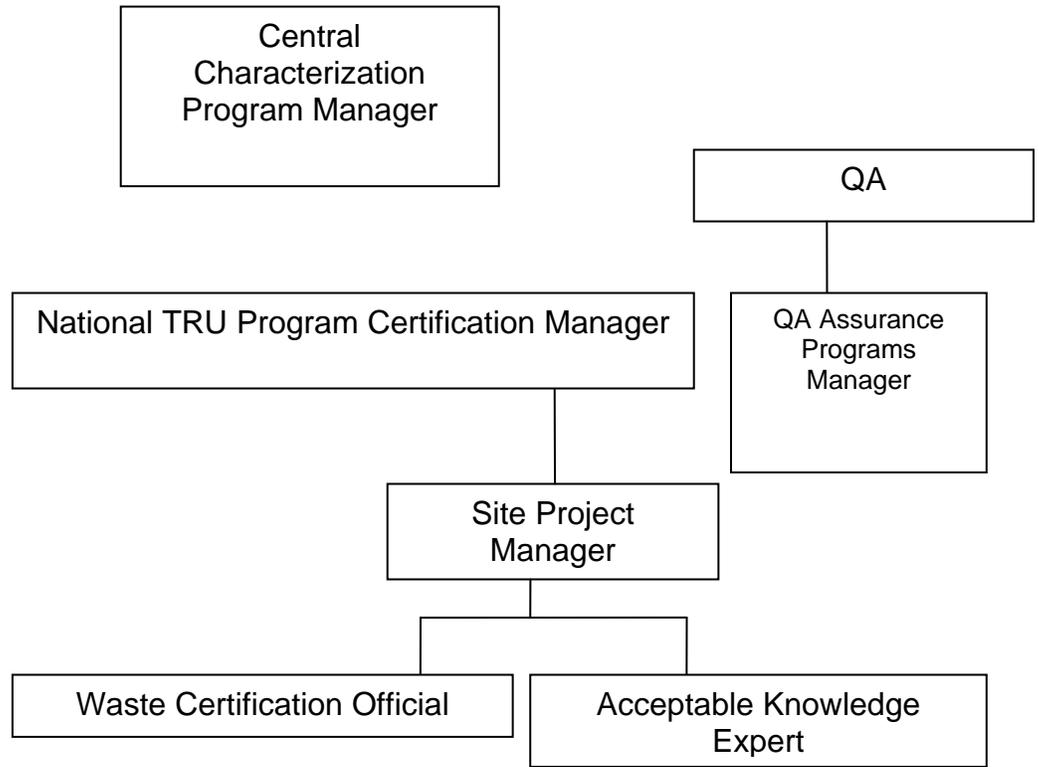
B-3 Site Project Manager

The Site Project Manager (SPM) oversees TRU waste characterization and certification activities and is responsible for the following:

- Developing, maintaining, reviewing, approving, and implementing CCP procedures and plans
- Scheduling revisions and distribution of CCP procedures and plans and forwarding these documents (if significantly revised) to DOE-CBFO for review and approval before implementation
- Reviewing and approving site interface documents (if used)
- Participating in internal audits and assessments
- Assisting Quality Assurance (QA) in developing project assessment criteria and responses to deficiency reports
- Halting characterization or certification activities if problems affecting the quality of the certification or work processes exist

- Ensuring CCP personnel receive appropriate training and orientation and maintain proficiency in work assignments
- Evaluating AK reports
- Reconciling AK information with characterization data
- Reconciling verified data with DQOs
- Ensuring that conditions adverse to quality are resolved and that corrective actions are implemented in a timely manner
- Preparing and submitting SPM Data Validation Summaries, Waste Stream Profile Forms (WSPFs), Characterization Information Summaries, and Waste Stream Characterization Packages (if requested by DOE-CBFO)
- Reviewing semi-annual QA/Quality Control (QC) summary reports and forwarding them and comments to the DOE-CBFO

Figure B-1. CCP Organization



C WASTE ANALYSIS PLAN

C-0 Introduction and Attachment Highlights

This QAPjP has been prepared for waste characterization activities to be conducted to meet requirements set forth in 20.4.1.500 New Mexico Administrative Code (NMAC) (incorporating 40 Code of Federal Regulation [CFR] §264.13) for waste disposal at the WIPP. This QAPjP includes test methods for complying with the general waste analysis requirements of 20.4.1.500 NMAC (incorporating 40 CFR §264.13), and a description of the QA/QC program. Before the CCP offers waste for shipment to the WIPP, the CCP implements the applicable requirements of this QAPjP.

TRU waste contains TRU radioactive components and may contain hazardous components, as defined in the New Mexico Hazardous Waste Act (HWA) and 20.4.1.200 NMAC (incorporating 40 CFR, §268.35. TRU waste is designated and separately packaged as either CH or RH, based on the radiological dose rate at the surface of the waste container.

The hazardous components of the TRU waste to be managed at the WIPP facility are designated in Table C-5, Listing of Permitted Hazardous Waste Numbers. Some of the waste is also identified by unique state hazardous waste numbers and is certified by the CCP if it meets the conditions of the WIPP Hazardous Waste Permit, Part 2, Table 2.3.4. This document describes the measures that will be taken to ensure that the TRU mixed wastes received at the WIPP facility are within the scope of Table C-5 as established by 20.4.1.500 NMAC (incorporating 40 CFR §264), and that they comply with unit-specific requirements of 20.4.1.500 NMAC (incorporating 40 CFR §264.600), Miscellaneous Units.

The CCP has developed this QAPjP to comply with the requirements of the WAP for characterizing CH TRU wastes. The hazardous components of the TRU waste disposed at the WIPP facility are described on a WSPF for each waste stream (T2). TRU waste that may be certified by the CCP are generated at DOE facilities by defense activities, including the following:

- Production of nuclear products
- Plutonium recovery
- Research and development
- Decontamination and decommissioning

Some TRU waste is retrievably stored at the DOE sites. Additional TRU waste is generated and packaged into containers at these sites. Retrievably stored waste is defined as TRU waste generated after 1970 and before NMED notifies the Permittees, by approval of the final audit report, that the characterization requirements of the WAP

at a site have been implemented. Newly-generated waste is defined as TRU waste generated after NMED approves the final audit report for a site. Waste characterization of retrievably stored TRU waste is performed on an ongoing basis, as the waste is retrieved. AK information is assembled for both the retrievably stored and newly generated waste. Waste characterization of newly generated TRU waste is performed as it is generated, although some characterization occurs post-generation.

Waste characterization is defined in Part 1 as the activities performed by the waste generator to satisfy the general waste analysis requirements of 20.4.1.500 NMAC (incorporating 40 CFR §264.13[a]) before waste containers have been certified for disposal at WIPP. The characterization process for WIPP waste is presented in Figure C-2, Waste Characterization Process. CCP waste characterization programs are first audited by DOE, with the NMED approving the final audit report. After this, CCP determines whether AK alone is sufficient for characterization, or whether a radiography or VE in conjunction with AK is necessary to adequately characterize wastes. If an AK Sufficiency Determination is sought, information is provided to the Permittees for their review and DOE's provisional approval; NMED determination of adequacy of the AK information is required before final approval by DOE. If the radiography or VE route is chosen, sites proceed to perform radiography or VE in conjunction with AK and in accordance with this QAPjP. Once an AK Sufficiency Determination is obtained, or when required radiography or VE data are obtained, sites would then prepare and submit the WSPF for DOE's approval. Once the WSPF is approved, CCP may ship waste to WIPP. The Permittees will perform waste confirmation prior to shipment of the waste from the generator/storage site to WIPP pursuant to Section C7, performing radiography or VE of a representative subpopulation of certified waste containers, to ensure that the wastes meet the applicable requirements of the *Treatment, Storage, and Disposal Facility Waste Acceptance Criteria* (TSDF-WAC).

C-0a Waste Characterization

Characterization requirements for individual containers of TRU waste are specified on a waste stream basis. The WAP defines a waste stream as waste materials that have common physical form, that contain similar hazardous constituents, and that are generated from a single process or activity. Waste streams are grouped by waste matrix code groups related to the physical and chemical properties of the waste (DOE 1995b). The CCP uses the characterization techniques described in this QAPjP to assign the appropriate waste matrix code groups to waste streams for WIPP disposal. The waste matrix code groups are solidified inorganics, solidified organics, salt waste, soils, lead/cadmium metal, inorganic nonmetal waste, combustible waste, graphite, filters, heterogeneous debris waste, and uncategorized metal. Waste matrix code groups are grouped into three Summary Category Groups: Homogeneous Solids (Summary Category Group S3000), Soil/Gravel (Summary Category Group S4000), and Debris Waste (Summary Category Group S5000).

TRU wastes are initially categorized into the three broad Summary Category Groups that are related to the final physical form of the wastes. This categorization is based on the Summary Category Group constituting the greatest volume of waste for a waste stream. Waste characterization requirements for these groups are specified in Section C-2. Each of the three groups is described below.

S3000 - Homogeneous Solids

Homogeneous solids, are defined as solid materials, excluding soil, that do not meet the NMED criteria for classification as debris (20.4.1.800 NMAC [incorporating 40 CFR §268.2(g) and (h)]). Included in the series of homogeneous solids are inorganic process residues, inorganic sludges, salt waste, and pyrochemical salt waste. Other waste streams are included in this Summary Category Group based on the specific waste stream types and final waste form. This Summary Category Group is expected to contain toxic metals and spent solvents. This category includes wastes that are at least 50 percent by volume homogeneous solids.

S4000 - Soils/Gravel

This Summary Category Group includes S4000 waste streams that are at least 50 percent by volume soil/gravel. This Summary Category Group is expected to contain toxic metals.

S5000 - Debris Wastes

This Summary Category Group includes heterogenous waste that is at least 50 percent by volume materials that meet the criteria specified in 20.4.1.800 NMAC (incorporating 40 CFR §268.2 [g]). Debris means solid material exceeding a 2.36 inch (in.) (60 millimeter [mm]) particle size that is intended for disposal and that is:

1. a manufactured object, or
2. plant or animal matter, or
3. natural geologic material.

Particles smaller than 2.36 inches in size may be considered debris if the debris is a manufactured object and if it is not a particle of S3000 or S4000 material.

The most common hazardous constituents in the TRU waste to be managed in the WIPP facility consist of the following:

Metals

Some of the TRU waste to be emplaced in the WIPP facility contains metals for which 20.4.1.200 NMAC (incorporating 40 CFR §261.24), toxicity characteristics were established (EPA Hazardous Waste Numbers D004 through D011). Cadmium, chromium, lead, mercury, selenium, and silver are present in discarded tools and equipment, solidified sludges, cemented laboratory liquids, and waste from decontamination and decommissioning activities. A large percentage of the waste consists of lead-lined gloveboxes, leaded rubber gloves and aprons, lead bricks and piping, lead tape, and other lead items. Lead, because of its radiation-shielding applications, is the most prevalent toxicity-characteristic metal present.

Halogenated Volatile Organic Compounds

Some of the TRU waste to be emplaced in the WIPP facility contains spent halogenated volatile organic compound (VOC) solvents identified in 20.4.1.200 NMAC (incorporating 40 CFR §261.31) (EPA Hazardous Waste Numbers F001 through F005). Tetrachloroethylene; trichloroethylene; methylene chloride; carbon tetrachloride; 1,1,1-trichloroethane; and 1,2-trichloro-1,2,2,-trifluoroethane (EPA Hazardous Waste Numbers F001 and F002) are the most prevalent halogenated organic compounds identified in TRU waste that may be managed at the WIPP facility during the Disposal Phase. These compounds are commonly used to clean metal surfaces prior to plating, polishing, or fabrication; to dissolve other compounds; or as coolants. Because they are highly volatile, only small amounts typically remain on equipment after cleaning or, in the case of treated waste waters, in the sludges after clarification and flocculation. Radiolysis may also generate halogenated volatile organic compounds.

Nonhalogenated Volatile Organic Compounds

Xylene, methanol, and n-butanol are the most prevalent nonhalogenated VOCs in TRU waste that may be managed at the WIPP facility during the Disposal Phase. Like the halogenated VOCs, they are used as degreasers and solvents and are similarly volatile. The same analytical methods that are used for halogenated VOCs are used to detect the presence of nonhalogenated VOCs. Radiolysis may also generate non-halogenated volatile organic compounds.

The CCP will characterize waste in accordance with this QAPjP, and ensure that waste proposed for storage and disposal at WIPP meets the applicable requirements of the

TSDF-WAC in Part 2. The CCP will assemble the AK information in an auditable record¹ for the waste stream as described in Section C4. For those waste streams with an approved AK Sufficiency Determination (see below), radiography or VE per the methods described in Section C1 are not required.

All waste characterization activities specified in this QAPjP and associated attachments shall be carried out at generator/storage sites and DOE approved laboratories in accordance with this QAPjP. The DOE will audit the CCP waste characterization programs and activities as described in Section C-3. Waste characterization activities at the generator/storage sites include the following, although not all these techniques will be used on each container, as discussed in Section C-3:

- Radiography, an x-ray technique used to determine the physical contents of containers.
- VE of the contents of opened containers as an alternative way to determine their physical contents.
- Compilation of AK documentation into an auditable record.

C-0b AK Sufficiency Determination

CCP may submit a request to the Permittees for an AK Sufficiency Determination (Determination Request) to be exempt from the requirement to perform radiography or VE based on AK(T5). The contents of the Determination Request are specified in Section C4-3d.

The Permittees shall evaluate the Determination Request for completeness and technical adequacy. This evaluation shall include, but not be limited to whether the Determination Request is technically sufficient for the following:

¹“Auditable records” means those records which allow the Permittees to conduct a systematic assessment, analysis, and evaluation of the Permittees’ compliance with the WAP and the Permit.

- The Determination Request must include all information specified in Section C4-3d.
- The AK Summary must identify relevant hazardous constituents, and must correctly identify all toxicity characteristic and listed hazardous waste numbers.
- All hazardous waste number assignments must be substantiated by supporting data and, if not, whether this lack of substantiation comprises the interpretation.
- Resolution of data discrepancies between different AK sources must be technically correct and documented.
- The AK Summary must include all the identification of waste material parameter weights by percentage of the material in the waste stream, and determinations must be technically correct and substantiated by supporting information.
- All prohibited items specified in the TSDf-WAC should be addressed and conclusions drawn and must be substantiated by supporting information.
- If the AK record includes process control information specified in Section C4-3b, the information should include procedures, waste manifests, or other documentation demonstrating that the controls were adequate and sufficient.
- The site must provide the supporting information necessary to substantiate technical conclusions with the Determination Request, and this information must be correctly interpreted.

The Permittees will review the Determination Request for technical adequacy and compliance with the requirements of the Permit, using trained and qualified individuals in accordance with standard operating procedures that shall, at a minimum, address all of the technical and procedural requirements listed above. The Permittees shall resolve comments with the CCP.

If DOE determines that the AK is sufficient, it shall inform the public of the Determination Request, the Permittees' evaluation of it, and the date and time of a public meeting to provide information to and solicit comments from interested members of the public regarding the Determination Request. Notice of the meeting and comment period shall be provided by the following methods:

1. Written notice to all individuals on the facility mailing list;
2. Public notice in area newspapers, including the Carlsbad Current-Argus, Albuquerque Journal, and Santa Fe New Mexican;

3. Notice on the WIPP Home Page;
4. E-mail notification as specified In Permit Section 1.11.

DOE shall take written comment on the Determination Request for at least 30 days following the public meeting. DOE shall compile all such comments, including any disagreement between the DOE and commenters.

If DOE provisionally approves the Determination Request, it may forward it along with all relevant information submitted with the Determination Request to NMED for an evaluation that the provisional approval made by the DOE is adequate. DOE shall also provide to NMED, as a separate appendix to the Determination Request, the compilation of all comments and DOE's response to each comment. After submitting a Determination Request to NMED, the Permittees will post a link to the transmittal letter to NMED on the WIPP Home Page and inform those on the e-mail notification list as specified in Permit Section 1.11. Based on the results of NMED's evaluation, the Permittees will notify the CCP whether the AK information is sufficient and the Determination Request is approved. The DOE will not approve a Determination Request that NMED has determined to be inadequate unless the CCP resolves the inadequacies and provides the resolution to NMED for evaluation of adequacy. Should the inadequacies not be resolved to NMED's satisfaction, the DOE shall not submit a Determination Request for the same waste stream at a later date. DOE shall not submit a Determination Request, if a previous Determination Request is pending evaluation by NMED.

In the event the DOE disagrees, in whole or in part, with an evaluation performed by NMED resulting in a determination by NMED that the DOE's provisional approval for a particular waste stream is inadequate, the DOE may seek dispute resolution. The dispute resolution process is specified in Part 1. The Secretary's final decision under Permit Section 1.16.4 shall constitute a final agency action.

By July 1 of each year, the Permittees shall submit to NMED a list of waste streams the Permittees may submit for an AK Sufficiency Determination during the upcoming federal fiscal year. The Permittees will post a link to the transmittal letter to NMED and announce a public meeting to discuss the list with interested members of the public on the WIPP Home Page and inform those on the e-mail notification list as specified in Permit Section 1.11.

If the CCP does not submit a Determination Request, or if the DOE does not approve a Determination Request, or if NMED finds that the DOE's provisional approval of a Determination Request is inadequate, the CCP shall perform radiography or VE on 100 percent of the containers in a waste stream.

If the CCP submits a Determination Request, the DOE provisionally approves the Determination Request and NMED finds that the DOE's provisional approval is adequate, neither radiography nor VE of the waste stream is required.

C-0c Waste Stream Profile Form Completion

After a complete AK record has been compiled and either a Determination Request has been approved by the DOE or the CCP has completed the applicable representative testing requirements specified in Section C1, the CCP will complete a WSPF and Characterization Information Summary (CIS) (T2). The requirements for the completion of a WSPF and a CIS are specified in Sections C3-6b(1) and C3-6b(2) respectively.

The WSPF and the CIS for the waste stream resulting from waste characterization activities are transmitted to the Permittees, who shall review them for completeness, and screen them for acceptance before the CCP proceeds with payload assembly of TRU waste into the CH or RH Packaging. The review and approval process will ensure that the submitted waste analysis information is sufficient to meet the DQOs for AK in Section C-4a(1) and allow the Permittees to demonstrate compliance with the requirements of the WIPP-WAP. Only TRU waste that meets the characterization requirements of the WAP is certified by the CCP. Only waste certified to meet the TSDF-WAC, specified in the WAP, is accepted at the WIPP facility for disposal in the permitted Underground Hazardous Waste Disposal Unit (HWDU). DOE will approve and provide NMED with copies of the approved WSPF and accompanying CIS prior to waste stream shipment. Upon notification of DOE's approval of the WSPF, the CCP may be authorized to ship waste to WIPP.

In the event that the Permittees request detailed information on a waste stream, the CCP provides a Waste Stream Characterization Package, as described in Section C3-6b(3). For each waste stream, this package will include the WSPF, the CIS, and the AK summary. The Waste Stream Characterization Package will also include specific Batch Data Reports (BDRs), and raw data associated with waste container characterization as requested by the Permittees.

C-0d Waste Confirmation

The Permittees will perform waste confirmation on a representative subpopulation of each waste stream shipment after certification and prior to shipment pursuant to Section C7. The Permittees will use radiography, review of radiography audio/video recordings, VE, or review of VE records (e.g., VE data sheets or packaging logs) to examine at least 7 percent of each waste stream shipment to confirm that the waste does not contain ignitable, corrosive, or reactive waste. Waste confirmation will be performed by the Permittees prior to shipment of the waste from the generator/storage site to WIPP.

C-1 Identification of TRU Waste to be Managed at the WIPP Facility

C-1a Waste Stream Identification

TRU waste destined for disposal at WIPP is characterized on a waste stream basis. The waste streams are delineated using AK. Required AK is specified in Section C-3a and Section C-4 of this QAPjP.

C-1b Waste Summary Category Groups and Hazardous Waste Accepted at the WIPP Facility

Once a waste stream is delineated, a waste matrix code is assigned to the waste stream based on its physical form. Waste streams are then assigned to one of the Summary Category Groups; S3000-Homogeneous Solids, S4000-Soils/Gravel, and S5000-Debris Wastes. These Summary Category Groups are then used to determine further characterization requirements.

The CCP considers only those TRU waste streams that are assigned EPA hazardous waste numbers listed in Table C-5. Waste identified by unique state hazardous waste numbers is acceptable at WIPP provided they meet the requirements of the TSDF-WAC. The CCP performs characterization of all waste streams as required by the WAP. If during the characterization process, new hazardous waste numbers are identified, those wastes are prohibited for disposal at the WIPP facility until a permit modification has been submitted and approved by NMED.

C-1c Waste Prohibited at the WIPP Facility

The following TRU wastes are prohibited for disposal at the WIPP facility:

- Liquid waste is not acceptable at WIPP. Liquid in the quantities delineated below is acceptable.
 - Observable liquid shall be no more than 1 percent by volume of the outermost container at the time of radiography or visual examination
 - Internal containers with more than 60 milliliters or 3 percent by volume observable liquid, whichever is greater, are prohibited
 - Containers with hazardous waste number U134 assigned shall have no observable liquid
 - Overpacking the outermost container that was examined during radiography or VE or redistributing untreated liquid within the container shall not be used to meet the volume limits

- Non-radionuclide pyrophoric materials, such as elemental potassium.
- Hazardous wastes not occurring as co-contaminants with TRU waste (non-mixed hazardous waste).
- Wastes incompatible with backfill, seal and panel closure materials, container and packaging materials, shipping container materials, or other wastes.
- Wastes containing explosives or compressed gases.
- Wastes with polychlorinated biphenyls (PCBs) not authorized under an EPA PCB waste disposal authorization.
- Wastes exhibiting the characteristic of ignitability, corrosivity, or reactivity (Hazardous Waste Numbers D001, D002, or D003).
- Any waste container from a waste stream (or waste stream lot) that has not undergone either radiographic or VE of a statistically representative subpopulation of the waste stream in each shipment, pursuant to Section C7.
- Any waste container from a waste stream which has not been preceded by an appropriate, certified WSPF (see Section C-1d).
- Waste that has ever been managed as high-level waste and waste from tanks specified in Table C-4, Waste Tanks Subject to Exclusion, unless specifically approved through a Class 3 permit modification.

Before accepting a container holding TRU waste, the Permittees will perform waste confirmation activities pursuant to Section C7 on each waste stream shipped to confirm that the waste does not contain ignitable, corrosive, or reactive waste and the assigned EPA hazardous waste numbers are allowed for storage and disposal by this QAPjP. Waste confirmation activities will be performed on at least 7 percent of each waste stream shipment. If a waste stream shipment contains fewer than 14 containers, one container will be examined to satisfy waste confirmation requirements. Section C-4 and Section C7 include descriptions of the waste confirmation processes that the Permittees will conduct prior to receiving a shipment at the WIPP facility.

Containers are vented through filters allowing any gases that are generated by radiolytic and microbial processes within a waste container to escape, thereby preventing over pressurization or development of conditions within the container that would lead to the formation of ignitable, corrosive, reactive, or other characteristic wastes. To ensure the integrity of the WIPP facility, waste streams identified to contain incompatible materials or materials incompatible with waste containers are not shipped to WIPP unless they are treated to remove the incompatibility. The CCP does not certify waste streams

identified to contain incompatible materials or materials incompatible with waste containers or backfill.

C-1d Control of Waste Acceptance

The CCP will provide a WSPF and CIS to the Permittee for each waste stream prior to shipment of the waste (T2). The WSPF and CIS elements are found in Section C3-6b(1) and Section C3-6b(2). The CCP will provide the WSPF to the Permittees for each waste stream prior to its acceptance for disposal at WIPP. The WSPF and the CIS will be transmitted to the Permittees for each waste stream. After WSPF submittal, if continued waste characterization activities reveal discrepancies that identify different hazardous waste numbers or indicate that the waste belongs to a different waste stream, the waste is redefined to a separate waste stream and a new WSPF is submitted.

The Permittees are responsible for the review of the WSPF and CISs to verify compliance with the restrictions on TRU wastes for WIPP disposal. Waste characterization data ensures the absence of prohibited items specified in Section C-1c. CCP determines by procedure the specific circumstances under which a WSPF is to be revised versus when a new WSPF is required.

The CCP provides a Waste Stream Characterization Package (as described in Section C3-6b(3)) to the Permittees upon request. The option for the Permittees to request additional information ensures that the waste being offered for disposal is adequately characterized and accurately described on the WSPF.

C-1e Waste Generating Processes at the WIPP Facility

Not applicable. This section applies to the Permittee.

C-2 Waste Characterization Program Requirements and Waste Characterization Parameters

The CCP has developed the procedures which specify the programmatic waste characterization requirements (Q10). DOE will evaluate the procedures during audits and as part of the review and approve of the WSPF.

CCP must notify the Permittees and obtain DOE approval prior to making data-affecting modifications to procedures (Q10). Program procedures shall address the following minimum elements:

- Waste characterization and certification procedures for retrievably stored and newly generated wastes to be sent to the WIPP facility.

- Methods used to ensure prohibited items are documented and managed. These will include procedures for performing radiography, VE, or treatment, if these methods are used to ensure prohibited items are not present in the waste prior to shipment of the waste to WIPP.
- Identify the organization(s) responsible for compliance with waste characterization and certification procedures.
- Identify the oversight procedures and frequency of actions to verify compliance with waste characterization and certification procedures.
- Develop training specific to waste characterization and certification procedures.
- Ensure that personnel may stop work if noncompliance with waste characterization or certification procedures is identified.
- Develop a nonconformance process that complies with the requirements in Section C3 to document and establish corrective actions.
- As part of the corrective action process, assess the potential time frame of the noncompliance, the potentially affected waste population(s), and the reassessment and recertification of those wastes.
- A listing of all approved hazardous waste numbers which are acceptable at WIPP are included in Table C-5.

For those waste streams or containers that are not amenable to radiography (e.g., RH TRU waste, direct loaded ten-drum overpacks [TDOPs]) for waste confirmation by the Permittees pursuant to Section C7, CCP VE data may be used for waste acceptance. In those cases, the Permittees will review the CCP VE procedures to ensure that data sufficient for the Permittees' waste acceptance activities pursuant to Section C7 will be obtained and the procedures meet the minimum requirements for VE specified in Section C1-1.

The following waste characterization parameters are obtained from the CCP prior to waste certification:

- Determination whether TRU waste streams comply with the applicable provisions of the TSDF-WAC.
- Determination whether TRU mixed wastes exhibit a hazardous characteristic (20.4.1.200 NMAC, incorporating 40 CFR §261 Subpart C).

- Determination whether TRU mixed wastes are listed (20.4.1.200 NMAC, incorporating 40 CFR §261 Subpart D).
- Estimation of waste material parameter weights.

Table C-1, Summary of Parameters, Characteristic Methods, and Rationale for Transuranic Mixed Waste, provides the parameters of interest for the constituent groupings and testing methodologies.

C-3 Generator Waste Characterization Methods

The characterization techniques used by the CCP include AK and may also include, as necessary, VE, and radiography. Characterization activities are performed in accordance with this QAPjP. Table C-1, Summary of Parameters, Characterization Methods, and Rationale for Transuranic Mixed Waste, provides a summary of the characterization requirements for TRU waste.

C-3a Acceptable Knowledge

AK is used in TRU waste characterization activities in five ways:

- To delineate TRU waste streams
- To assess whether TRU mixed wastes comply with the TSDF-WAC
- To assess whether TRU wastes exhibit a hazardous characteristic (New Mexico Hazardous Waste Management Regulations in 20.4.1.200 NMAC incorporating 40 CFR §261 Subpart C)
- To assess whether TRU wastes are listed (20.4.1.200 NMAC, incorporating 40 CFR §261 Subpart D)
- To estimate waste material parameter weights

AK is discussed in detail in Section C4, which outlines the minimum set of requirements and DQOs met by the CCP in order to use AK.

C-3b Radiography and Visual Examination

Radiography and VE are nondestructive qualitative and quantitative techniques used to identify and verify waste container contents as specified in Section C1. The CCP performs radiography or VE of 100 percent of CH-TRU waste containers in waste streams except for those waste streams for which the DOE approves a Determination Request. No RH-TRU waste will be shipped to WIPP for storage or disposal without

documentation of radiography or VE of 100 percent of the containers as specified in Section C1. VE consists of either observing the filling of waste containers or opening full containers and physically examining their contents. Radiography and/or VE are used, when necessary, to examine a waste container to verify the physical form of the waste matches its waste stream description as determined by AK. These techniques detect observable liquid in excess of TSDf-WAC limits and containerized gases which are prohibited for WIPP disposal. The prohibition of liquid in excess of TSDf-WAC limits and containerized gases prevents the shipment of corrosive, ignitable, or reactive wastes. Radiography and/or VE are also able to verify the physical form of the waste matches its waste stream description (i.e., Homogeneous Solids, Soil/Gravel, or Debris Waste [including uncategorized metals]).

If the physical form does not match the waste stream description, the waste is designated as another waste stream and assigned the preliminary hazardous waste numbers associated with that new waste stream assignment. That is, if radiography and/or VE indicate that the waste does not match the waste stream description produced by AK characterization, a nonconformance report (NCR) is completed and the inconsistency resolved as specified in Section C4 (Q5), and the NCR will be dispositioned as specified in Section C3-7. The proper waste stream assignment is determined (including preparation of a new WSPF), the correct hazardous waste numbers are assigned, and the resolution is documented. The AK verification process is discussed in Section C4.

If CCP uses VE, the detection of any liquid in non-transparent internal containers, detected from shaking the internal container, is handled by assuming that the internal container is filled with liquid and adding this volume to the total liquid in the container being characterized using VE. The container being characterized using VE is then repackaged or rejected to exclude the internal container if it does not meet the requirements of the TSDf-WAC. When radiography is used or VE of transparent containers is performed, if any liquid in internal containers is detected, the volume of liquid is added to the total for the container being characterized using radiography or VE. Radiography, or the equivalent, is used as necessary on the existing or stored waste containers to verify the physical characteristics of the TRU waste corresponding with its waste stream identification and waste matrix code and to identify prohibited items. Radiographic examination protocols and QA/QC methods are provided in Section C1. Radiography and VE shall be subject to the Audit and Surveillance Program.

C-4 Data Verification and Quality Assurance

The CCP ensures that its applicable waste characterization process performance for generator/storage sites sending TRU waste to the WIPP for disposal meets WAP requirements through data validation, verification, usability and reporting controls. Verification occurs at three levels: 1) the CCP data generation level, 2) the CCP project

level, which consists of verification and validation by the CCP to ensure that applicable WAP requirements are met and; 3) the Permittee level. The validation and verification process and requirements at each level are described in Section C3-4. The validation verification process at the Permittee Level is also described in C-5.

C-4a Data Generation and Project Level Verification Requirements

C-4a(1) Data Quality Objectives

The waste characterization data obtained through implementation of this QAPjP are used by the Permittees to ensure that the regulatory requirements of the WAP are met with regard to compliance and to ensure that TRU wastes are properly managed during the disposal phase.

To satisfy the RCRA regulatory compliance requirements, the following are DQOs established by the WAP and flowed down to this QAPjP (T2):

Acceptable Knowledge

- To delineate TRU waste streams.
- To assess whether TRU mixed wastes comply with the applicable requirements of the TSDF-WAC.
- To assess whether TRU mixed wastes exhibit a hazardous characteristic (20.4.1.200 NMAC, incorporating 40 CFR §261, Subpart C).
- To assess whether TRU mixed wastes are listed (20.4.1.200 NMAC, incorporating 40 CFR §261, Subpart D).
- To estimate waste material parameter weights.

Radiography and VE

- Verify the TRU mixed waste streams contain no prohibited items and to verify the physical form of the waste matches the waste stream description as to be determined by AK.

Reconciliation of these DQOs by the SPM as applicable, is addressed in Section C3-11. Reconciliation requires determining whether sufficient types, quality, and quantity of data have been collected to ensure that the DQOs cited above can be achieved.

C-4a(2) Quality Assurance Objectives

The CCP shall demonstrate compliance with each Quality Assurance Objective (QAO) associated with the characterization methods in Section C3. The SPM performs reconciliation of the data with the DQOs established in this QAPjP. The SPM concludes that all of the DQOs have been met for the characterization of the waste stream prior to submitting a WSPF to the DOE for approval (T2).

The following QAO elements are considered for each technique, as a minimum:

- Precision - a measure of the mutual agreement among multiple measurements
- Accuracy - the degree of agreement between a measurement result and the true or known value
- Completeness - a measure of the amount of valid data obtained from a method compared to the total amount of data obtained (expressed as a percentage)
- Comparability - the degree to which one data set can be compared to another
- Representativeness - the degree to which sample data represent characteristics of a population

A more detailed discussion of the QAOs can be found in Section C3, which describes the QAOs associated with each test method.

C-4a(3) Data Generation

BDRs, in a format approved by the DOE, are used by CCP for reporting waste characterization data. The CCP formats for reporting waste characterization data in BDRs are specified in several procedures. These procedures comply with the waste characterization data reporting requirements described in Section C3.

C-4a(4) Data Verification

BDRs document the testing, and on-line results from required characterization activities, and required QA/QC activities. Data validation, review, and verification are performed at the data generation level and the CCP project level before the required data are transmitted to the Permittees (T1). Section C3 discusses the data validation process in greater detail. NMED may request, through the Permittees, copies of any BDR and/or the raw data validated by the CCP to check the DOE's audit of the validation and verification process.

C-4a(5) Data Transmittal

As part of the waste characterization data submittal, the CCP transmits the data electronically to the Permittees via the WIPP Waste Information System (WWIS)/Waste Data System (WDS) (T30, T530). Data will be entered into the WWIS/WDS in the exact format required by the data base as specified in Section C-5a(1) for WWIS/WDS reporting requirements and the *Waste Data System User's Manual* (DOE 2009) for the WWIS/WDS data fields and format requirements. BDRs include the information required by Section C3-4 and are transmitted by hard copy or electronically (provided a hard copy is available on demand) from the data generation level to the CCP project level.

Once a waste stream is fully characterized the SPM submits a WSPF, accompanied by a CIS for that waste stream to the Permittees, which includes a record of reconciliation with DQOs as described in Sections C3-6b(1) and C3-6b(2).

The WSPF, the CIS, and information from the WWIS/WDS is used as the basis for acceptance of waste characterization information on TRU wastes to be disposed of at WIPP.

C-4a(6) Records Management

Records related to waste characterization activities performed by the generator/storage sites will be maintained in the testing facility files or generator/storage site project files or at the WIPP Records Archive facility. Raw data obtained by testing TRU mixed waste in support of the WAP will be identifiable, legible, and provide documentary evidence of quality. TRU mixed waste characterization records submitted to the Permittees shall be maintained in the WIPP facility operating record and be available for inspection by NMED. A detailed description of CCP site-specific records management activities is provided in Section C7.

Records inventory and disposition schedule (RIDS) or an equivalent system shall be prepared and approved by CCP. All records relevant to an enforcement action under this Permit, regardless of disposition, shall be maintained in CCP Records at the generator/storage site or at the WIPP Records Archive facility until NMED determines they are no longer needed for enforcement action, and then dispositioned as specified in the approved RIDS. All waste characterization data and related QA/QC records for TRU mixed waste to be shipped to the WIPP facility are designated as either Lifetime Records or Non-Permanent Records. Records that are designated as Lifetime Records shall be maintained for the life of the waste characterization program by CCP Records or generator/storage sites plus six years or transferred for permanent archival storage to the WIPP Records Archive facility.

Waste characterization records include characterization records (i.e., headspace gas sampling and homogeneous solids and soil/gravel sampling/analysis) generated through implementation of previous requirements in this WAP. Those waste characterization records designated as Non-Permanent Records shall be maintained for 10 years from the date of (record) generation by CCP Records or at the participating generator/storage site or at the WIPP Records Archive facility and then dispositioned according to their approved RIDS. If a generator/storage site ceases to operate, all records shall be transferred before closeout to the Permittees for management at the WIPP Records Archive facility. Table C-2, Required Program Records, is a listing of records designated as Lifetime Records and Non-Permanent Records.

Classified information will not be transferred to WIPP. Notations will be provided to the Permittees indicating the absence of classified information. The approved CCP RIDS will identify the appropriate disposition of classified information. Nothing in the WIPP Permit is intended to, nor should it be interpreted to, require disclosure of any DOE classified information to persons without appropriate clearance to view such information.

C-5 Permittee Level Waste Screening and Verification of TRU Mixed Waste

This section is not applicable to CCP. This section applies to the Permittees.

C-5a Phase I Waste Stream Screening and Verification

The first phase of the waste screening and verification process occurs before TRU waste is shipped to the WIPP facility. Before the Permittees begin the process of accepting TRU waste from the CCP, an initial audit is conducted as part of the Audit and Surveillance Program. The audit of CCP provides verification of characterization procedures; BDR preparation; and recordkeeping that ensures that all applicable provisions of the WAP requirements are met. Another portion of the Phase I verification is the WSPF approval process. At the WIPP facility, this process includes verification that all of the required elements of a WSPF and CIS are present and that the summarized waste characterization information meets acceptance criteria required for compliance with the WAP (Section C3-6b(1)).

The CCP has prepared this QAPjP, which includes applicable WAP requirements. This document is submitted to DOE for review and approval. The CCP implements the specific parameters of this QAPjP after Permittee approval. An initial audit is performed after QAPjP implementation and prior to the CCP being certified for shipment of waste to WIPP. Additional audits, focusing on the results of waste characterization, are performed at least annually. The DOE has the right to conduct unannounced audits and to examine any records that are related to the scope of the audit. See Section C-5a(3) for further information regarding audits.

When the required waste stream characterization data have been collected by the CCP and the initial audit is successfully completed, the SPM will verify that the waste stream characterization meets the applicable WAP requirements as part of the project level verification (T2). If the waste characterization does not meet the applicable requirements of the WAP, the waste stream cannot be managed, stored, or disposed of at the WIPP until those requirements are met. The SPM will then complete the WSPF and submit it to the Permittees, along with the accompanying CIS for that waste stream. All data necessary to check the accuracy of the WSPF is transmitted to the Permittees. This provides notification that the CCP considers that the waste stream (identified by the waste stream identification number) has been adequately characterized for disposal prior to shipment to WIPP. The Permittees then compare radiography and VE data obtained subsequent to submittal and approval of the WSPF (and prior to submittal) with characterization information presented on this form. If the Permittees determine (through the data comparison) that the characterization information is adequate, DOE will approve the WSPF. Prior to the first shipment of containers from the approved waste stream, the approved WSPF and accompanying CIS is provided to NMED. If the data comparison indicates that analyzed containers have hazardous wastes not present on the WSPF, or a different waste matrix code applies, the WSPF is in error and is resubmitted. Ongoing WSPF examination is discussed in detail in Section C-5a(2).

Audits of CCP will be conducted as part of the Audit and Surveillance Program. The RCRA portion of the CCP audit program will provide on-site verification of waste characterization procedures; BDR preparation; and record keeping to ensure that all applicable provisions of the WAP requirements are met. As part of the waste characterization data submittal, the CCP also transmits the data on a container basis via the WWIS/WDS prior to shipment of that container. This data submittal occurs at any time as the data are being collected, but is complete for each container prior to shipment of that container. The WWIS/WDS conducts internal edit/limit checks based on the approved WSPF. The Permittees compare ongoing characterization data obtained and submitted via the WWIS/WDS to the approved WSPF. If this comparison shows that containers have hazardous wastes not reported on the WSPF, or a different waste matrix code applies, the data are rejected and the waste containers are not accepted for shipment until a new or revised WSPF is submitted to Permittees' and approved by the DOE.

If discrepancies regarding hazardous waste number assignment or Waste Matrix Code designation arise as a result of the Phase I review, the CCP is contacted by the Permittees and provides the necessary additional information to resolve the discrepancy before that waste stream is approved for disposal at the WIPP facility. If the discrepancy is not resolved, the waste stream is not approved for shipment.

C-5a(1) WWIS/WDS Description

The CCP supplies the required data to the Permittees via the WWIS/WDS (T30, T530). The WWIS/WDS Data Dictionary includes all of the data fields, the field format and the limits associated with the data as established by the WIPP WAP. These data will be subjected to edit and limit checks that are performed automatically by the database, as defined in the *Waste Data System User's Manual* DOE/WIPP-09-3427(DOE, 2009). The Permittees will coordinate the data transmission with CCP. Actual data transmission will use appropriate technology to ensure the integrity of the data transmissions. The Permittees will require sites with large waste inventories and large databases to populate a data structure provided by the Permittees that contains the required data dictionary fields that are appropriate for the waste stream (or waste streams) at the site. The Permittees will access these data via the Internet to ensure an efficient transfer of this data. Small quantity sites will be given a similar data structure by the Permittees that is tailored to their types of waste. Sites with very small quantities of waste will be provided with the ability to assemble the data interactively to this data structure on the WWIS/WDS.

The Permittees will use the WWIS/WDS to verify that all of the supplied data meet the applicable edit and limit checks prior to the shipment of any TRU waste to WIPP. The WWIS/WDS automatically notifies the CCP if any of the supplied data fails to meet the requirements of the edit and limit checks via an appropriate error message. The CCP corrects the discrepancy with the waste or the waste data and re-transmits the corrected data prior to acceptance of the data by the WWIS/WDS. The Permittees review data reported for each container of each shipment prior to providing notification to the CCP that the shipment is acceptable.

Access to the WWIS/WDS is controlled by the Permittees' Data Administrator (DA) who controls the WWIS/WDS users based on approval from management personnel.

The CCP only has access to CCP data supplied to WWIS/WDS, and only until the data have been formally accepted by the Permittees. After the data have been accepted, the data are protected from indiscriminate change and only changed by an authorized DA.

C-5a(2) Examination of the Waste Stream Profile Form and Container Data Checks

The Permittees verify the completeness and accuracy of the WSPF (Section C3-6b(1)). The assignment of the waste stream description, waste matrix code group, and Summary Category Groups; the AK summary documentation; the methods used for characterization; the DOE certification, and appropriate designation of hazardous waste number(s) are examined by the Permittees. If the WSPF is inaccurate, efforts are made to resolve discrepancies by contacting the CCP in order for the waste stream to be eligible for shipment to the WIPP facility. If discrepancies in the

waste stream are detected, the CCP implements a non-conformance action to identify, document, and report discrepancies.

The WSPF shall pass all verification checks by the Permittees in order for the waste stream to be approved by DOE for shipment to the WIPP facility. The WSPF check against waste container data will occur during the initial WSPF process (Section C-5a). Waste data transferred via the WWIS/WDS after WSPF approval is compared with the approved WSPF. Any container from an approved hazardous waste stream with a description different from its WSPF is not shipped to the WIPP for disposal.

The CCP verifies that the three different types of data specified below are available for every container holding TRU waste before that waste is managed, stored, or disposed at WIPP: 1) an assignment of the waste stream's waste description (by waste matrix codes) and waste matrix code group; 2) a determination of ignitability, reactivity, and corrosivity; and 3) a determination of compatibility. The CIS indicates if the waste was checked for the characteristics of ignitability, corrosivity, and reactivity.

Any container with unresolved discrepancies associated with hazardous waste characterization will not be managed, stored, or disposed at the WIPP facility until the discrepancies are resolved. If discrepancies cannot be resolved, the DOE will revoke the approval status of the waste stream and CCP will suspend shipments of the waste stream. Waste stream approval will not be reinstated until the CCP demonstrates all corrective actions have been implemented and the CCP waste characterization program is reassessed by the DOE.

C-5a(3) Audit and Surveillance Program

This section is not applicable to the CCP. It applies to the Permittees.

C-5b Phase II Waste Shipment Screening and Verification

For each container shipped, the CCP provides the following information (T86):

Hazardous Waste Manifest Information:

- Generator/storage site name and EPA Identification Number
- CCP contact name and phone number
- Quantity of waste
- List of up to six state and/or federal hazardous waste numbers in each line item

- Listing of all shipping container identification numbers (IDs) (Shipping Package serial number)
- Signature of authorized generator representative

Specific Waste Container information:

- Waste Stream Identification Number
- List of hazardous Waste Numbers per Container
- Certification Data
- Shipping Data (assembly numbers, ship date, shipping category, etc.)

This information is also supplied electronically to the WWIS/WDS. The container-specific information will be supplied electronically as described in Section C-5a(1), and is supplied prior to shipment.

C-5b(1) Examination of the EPA Uniform Hazardous Waste Manifest and Associated Waste Tracking Information

Manifest discrepancies will be identified during manifest examination and container bar-code WWIS/WDS data comparison. A manifest discrepancy is a difference between the quantity or type of hazardous waste designated on the manifest and the quantity or type of hazardous waste the WIPP facility actually receives. The CCP technical contact (as listed on the manifest) is contacted to resolve the discrepancy. Errors on the manifest are corrected by the WIPP facility with a verbal (followed by a mandatory written) concurrence by the CCP technical contact. If the manifest discrepancies are not resolved in thirty (30) days of waste receipt, the shipment is returned to the facility where the CCP performed the characterization.

C-5b(2) Examination of the Land Disposal Restriction Notice

TRU waste designated by the Secretary of Energy for disposal at WIPP is exempt from the Land Disposal Restrictions (LDRs) by the WIPP Land Withdrawal Act Amendment (Public Law 104-201). This amendment states that WIPP "Waste is exempted from treatment standards promulgated pursuant to section 3004(m) of the Solid Waste Disposal Act (42 U.S.C. 6924[m]) and shall not be subjected to the Land Disposal prohibitions in section 3004(d), (e), (f), and (g) of the Solid Waste Disposal Act."

Therefore, with the initial shipment of a TRU waste stream, the CCP provides the Permittees with a onetime written notice. The notice includes the information listed below:

Land Disposal Restriction Notice Information:

- EPA hazardous waste numbers and Manifest Numbers of first shipment of a mixed waste stream
- Statement: this waste is not prohibited from land disposal
- Date the waste is subject to prohibition

This information is the applicable information taken from column “268.7(a)(4)” of the “Generator Paperwork Requirements Table” in 20.4.1.800 NMAC (incorporating 40 CFR §268.7(a)(4)). Note that item “5” from the “Generator Paperwork Requirements Table” is not applicable since waste analysis data are provided electronically via the WWIS/WDS and item “7” is not applicable since waste designated by the Secretary of Energy for disposal at WIPP is exempted from the treatment standards.

The Permittees review the LDR notice for accuracy and completeness. The CCP prepares this notice in accordance with the applicable requirements of 20.4.1.800N MAC (incorporating 40 CFR §268.7(a)(4)).

C-5b(3) Verification

This section is not applicable to CCP. This section applies to the Permittees.

C-6 Permittees’ Waste Shipment Screening QA/QC

This section is not applicable to CCP. This section applies to the Permittees.

C-7 Records Management and Reporting

All waste characterization data for each TRU waste container transmitted to WIPP shall be maintained by the Permittees for the active life of the WIPP facility plus two years (Q8). The active life of the WIPP facility is defined as the period from the initial receipt of TRU waste at the facility until NMED receives certification of final closure of the facility. After their active life, the records shall be retired to the WIPP Records Archive facility and maintained for 30 years. These records will then be offered to the National Archives. However, this disposition requirement does not preclude the inclusion of these records in the permanent marker system or other requirements for institutional control.

Waste characterization and waste confirmation data and documents related to waste characterization that are part of the WIPP facility operating record are managed in accordance with the following guidelines:

C-7a General Requirements

- Records shall be legible
- Corrections shall be made with a single line through the incorrect information, and the date and initial of the person making the correction shall be added
- Black ink is encouraged, unless a copy test has been conducted to ensure the other color ink will copy
- Use of highlighters on records is discouraged
- Records shall be reviewed for completeness
- Records shall be validated by the cognizant manager or designee

C-7b Records Storage

- Active records shall be stored when not in use
- Quality records shall be kept in a one-hour (certified) fire-rated container or a copy of a record shall be stored separately (sufficiently remote from the original) in order to prevent destruction of both copies as a result of a single event such as fire or natural disaster
- Unauthorized access to the records is controlled by locking the storage container or controlling personnel access to the storage area

C-8 Reporting

This section is not applicable to CCP. This section applies to the Permittees.

Table C-1. Summary of Parameters, Characterization Methods, and Rationale for Transuranic Mixed Waste

Waste Matrix Code Summary Categories	Waste Matrix Code Groups	Characterization Parameter	Method	Rationale
S3000-Homogeneous Solids	<ul style="list-style-type: none"> • Solidified inorganics • Salt waste • Solidified organics 	Physical waste form	Acceptable knowledge, radiography and/or visual examination	<ul style="list-style-type: none"> • Determine waste matrix • Demonstrate compliance with waste acceptance criteria (e.g., no liquid in excess of TSDF-WAC limits, no incompatible wastes, no compressed gases) • Determine assignment of EPA hazardous waste numbers
S4000-Soil/Gravel	<ul style="list-style-type: none"> • Contaminated soil/debris 			
S5000-Debris Waste	<ul style="list-style-type: none"> • Uncategorized metal (metal waste other than lead/cadmium) • Lead/cadmium waste • Inorganic nonmetal waste • Combustible waste • Graphite waste • Heterogeneous debris waste • Composite filter waste 	Hazardous constituents <ul style="list-style-type: none"> • Listed • Characteristic 	Acceptable knowledge	

Table C-2. Required Program Records Maintained in Generator/Storage Site Project Files

<u>Lifetime Records</u>
<ul style="list-style-type: none">• Field sampling data forms• Field and laboratory chain-of-custody forms• Test facility and laboratory batch data reports• Waste Stream Characterization Packages• Sampling plans• Data reduction, validation, and reporting documentation• AK documentation• WSPFs and CIS
<u>Non-Permanent Records</u>
<ul style="list-style-type: none">• Nonconformance documentation• Variance documentation• Assessment documentation• Gas canister tags• Methods performance documentation• PDP documentation• Sampling equipment certifications• Calculations and related software documentation• Training/qualification records• QAPjPs documentation (all revisions)• Calibration documentation• Analytical raw data• Procurement records• QA and technical procedures (all revisions)• Audio/video recordings (radiography, VE)

Table C-3. WIPP Waste Information System Data Fields^a

Characterization Module Data Fields ^b	
Container ID ^c Generator EPA ID Generator Address Generator Name Generator Contact Hazardous Code Layers of Packaging Liner Exists Liner Hole Size Filter Model Number of Filters Installed Item Description Code Haz. Manifest Number NDE Complete ^e	Transporter EPA ID Transporter Name Visual Exam Container ^e Waste Material Parameter ^d Waste Material Weight ^d Waste Matrix Code Waste Matrix Code Group Waste Stream Profile Number
Certification Module Data Fields	
Container ID ^c Container type Container Weight Contact Dose Rate Container Certification date Container Closure Date Handling Code	
Transportation Data Module	
Contact Handled Package Number Assembly Number ^f Container IDs ^{c,d} ICV Closure Date Ship Date Receive Date	
Disposal Module Data	
Container ID ^c Disposal Date Disposal Location	

^a This is not a complete list of the WWIS/WDS data fields.

^b Some of the fields required for characterization are also required for certification and/or transportation.

^c Container ID is the main relational field in the WWIS/WDS Database.

^d This is a multiple occurring field for each waste material parameter, nuclide, etc.

^e These are logical fields requiring only a yes/no.

^f Required for 7-Packs of 55-gallon drums, 4-packs of 85-gallon drums, or 3-packs of 100-gallon drums to tie all of the drums in that assembly together. This facilitates the identification of waste containers in a shipment without need to breakup the assembly.

Table C-4. Waste Tanks Subject to Exclusion

Hanford Site - 177 Tanks	
A-101 through A-106	C-201 through C-204
AN-101 through AN-107	S-101 through S-112
AP-101 through AP-108	SX-101 through SX-115
AW-101 through AW-106	SY-101 through SY-103
AX-101 through AX-104	T-101 through T-112
AY-101 through AY-102	T-201 through T-204
B-101 through B-112	TX-101 through TX-118
B-201 through B-204	TY-101 through TY-106
BX-101 through BX-112	U-101 through U-112
BY-101 through BY-112	U-201 through U-204
C-101 through C-112	
SRS - 51 Tanks	
Tank 1 through 51	
Idaho National Laboratory - 15 Tanks	
WM-103 through WM-106	WM-180 through 190

Table C-5. Listing of Permitted Hazardous Waste Numbers

EPA Hazardous Waste Numbers			
F001	D019	D043	U079
F002	D021	P015	U103
F003	D022	P030	U105
F004	D026	P098	U108
F005	D027	P099	U122
F006	D028	P106	U133*
F007	D029	P120	U134*
F009	D030	U002*	U151
D004	D032	U003*	U154*
D005	D033	U019*	U159*
D006	D034	U037	U196
D007	D035	U043	U209
D008	D036	U044	U210
D009	D037	U052	U220
D010	D038	U070	U226
D011	D039	U072	U228
D018	D040	U078	U239*

* Acceptance of U-numbered wastes listed for reactivity, ignitability, or corrosivity characteristics is contingent upon a demonstration that the wastes no longer exhibit the characteristic of reactivity, ignitability, or corrosivity.

Figure C-1. Waste Stream Profile Form (Example Only)

(1) Waste Stream Profile Number:			
(2) Generator site name:		(3) Generator site EPA ID:	
(4) Technical contact:		(5) Technical contact phone number:	
(6) Date of audit report approval by New Mexico Environment Department (NMED):			
(7) Title, version number, and date of documents used for WIPP-WAP Certification:			
(8) Did your facility generate this waste?		YES	NO
(9) If no, provide the name and EPA ID of the original generator:			
Waste Stream Information¹			
(10) WIPP ID:		(11) Summary Category Group:	
(12) Waste Matrix Code Group:		(13) Waste Stream Name:	
(14) Description from the ATWIR:			
(15) Defense TRU Waste:	YES	NO	
(16) Check One:	CH	RH	
(17) Number of SWBs	(18) Number of Drums		(19) Number of Canisters
(17a) Number of SLB2			
(20) Batch Data Report numbers supporting this waste stream characterization:			
(21) List applicable EPA Hazardous Waste Numbers: ²			
(22) Applicable TRUCON Content Numbers:			
(23) Acceptable Knowledge Information¹			
(For the following, enter the supporting documentation used [i.e., references and dates])			
Required Program Information			
(23A) Map of site:			
(23B) Facility mission description:			
(23C) Description of operations that generate waste:			
(23D) Waste identification/categorization schemes:			
(23E) Types and quantities of waste generated:			
(23F) Correlation of waste streams generated from the same building and process, as applicable:			
(24) Waste certification procedures:			
(25) Required Waste Stream Information			
(25A) Area(s) and building(s) from which the waste stream was generated:			
(25B) Waste stream volume and time period of generation:			
(25C) Waste generating process description for each building:			
(25D) Waste Process flow diagrams:			
(25E) Material inputs or other information identifying chemical/radionuclide content and physical waste form:			
(25F) Waste Material Parameter Weight Estimates per unit of waste			
(26) Which Defense Activity generated the waste:			
Weapons activities including defense inertial confinement fusion		Naval Reactors development	
Verification and control technology		Defense research and development	
Defense nuclear waste and material by products management		Defense nuclear material production	
Defense nuclear waste and materials security and safeguards and security investigations			

Figure C-1. Waste Stream Profile Form (Example Only) (continued)

(27) Supplemental Documentation:		
(27A) Process design documents:		
(27B) Standard operating procedures:		
(27C) Safety Analysis Reports:		
(27D) Waste packaging logs:		
(27E) Test plans/research project reports:		
(27F) Site databases:		
(27G) Information from site personnel:		
(27H) Standard industry documents:		
(27I) Previous analytical data:		
(27J) Material safety data sheets:		
(27K) Sampling and analysis data from comparable/surrogate Waste:		
(27L) Laboratory notebooks:		
Confirmation Information ²		
For the following, when applicable, enter procedure title(s), number(s) and date(s)		
(28)	Radiography:	
	Visual Examination:	
(29) Comments: For a list of the waste characterization procedures used and date of respective procedures see the list of procedures on the attached CIS.		
<p>Reviewed by AK Expert: YES <input type="checkbox"/> Date: _____</p> <p>Reviewed by STR (if necessary): YES <input type="checkbox"/> N/A <input type="checkbox"/> Date: _____</p>		
Waste Stream Profile Form Certification:		
<p>I hereby certify that I have reviewed the information in this Waste Stream Profile Form, and it is complete and accurate to the best of my knowledge. I understand that this information will be made available to regulatory agencies and that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.</p>		
_____	_____	_____
Signature of Site Project Manager	Printed Name	Date

Figure C-2. Waste Characterization Process (Reprinted from the WAP, Figure C-2)

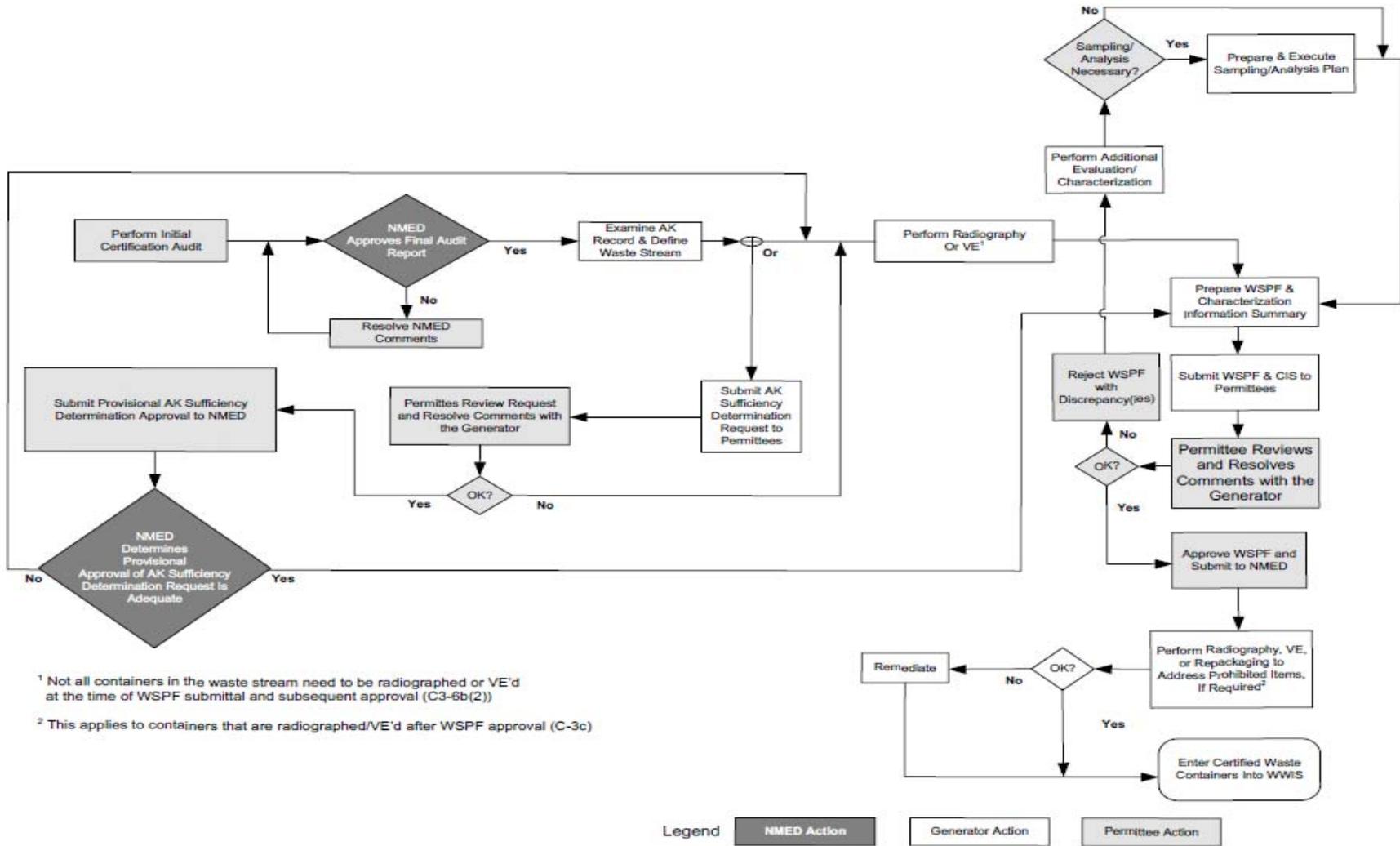


Figure C-3. TRU Mixed Waste Screening and Verification Flow Diagram

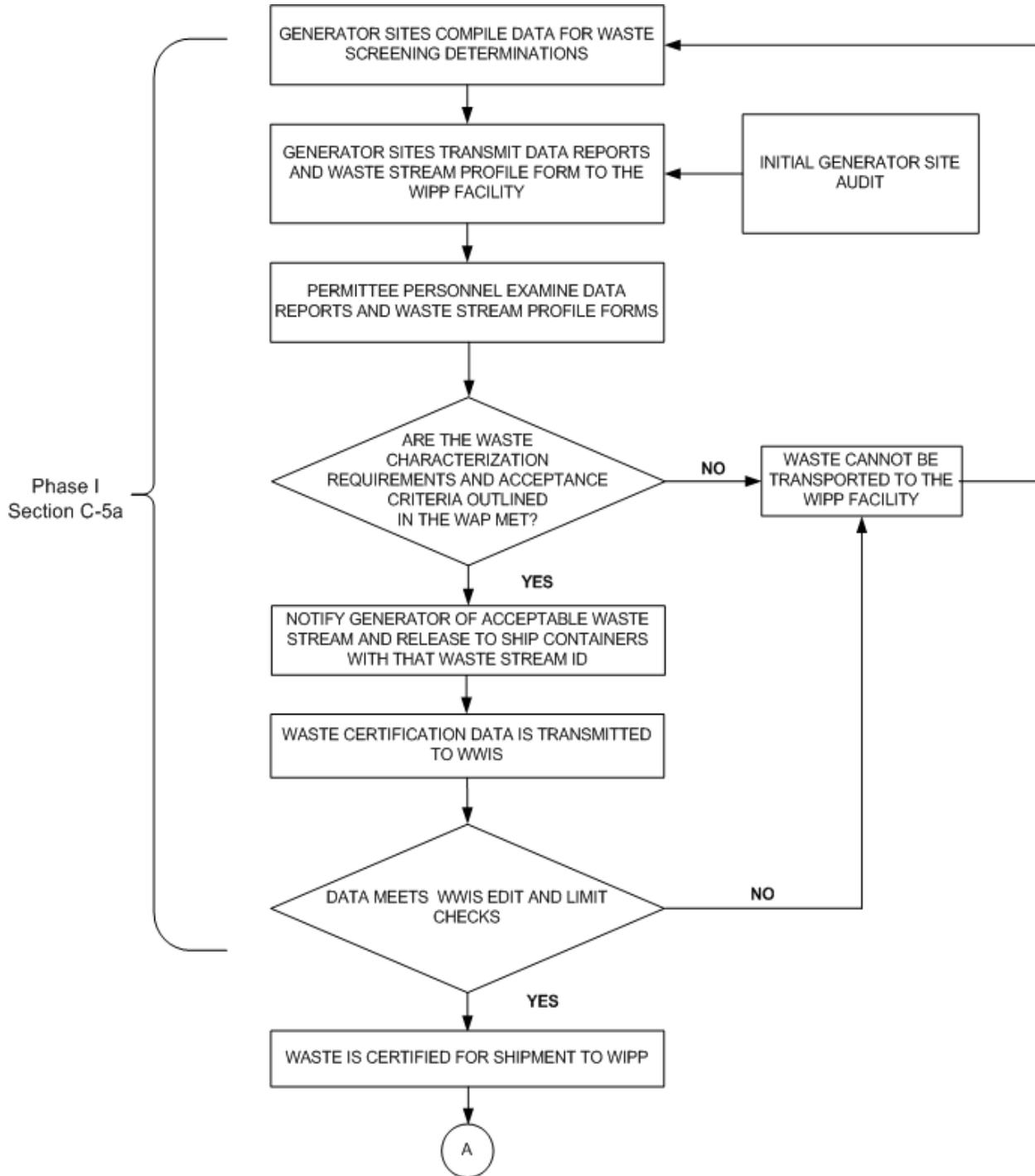
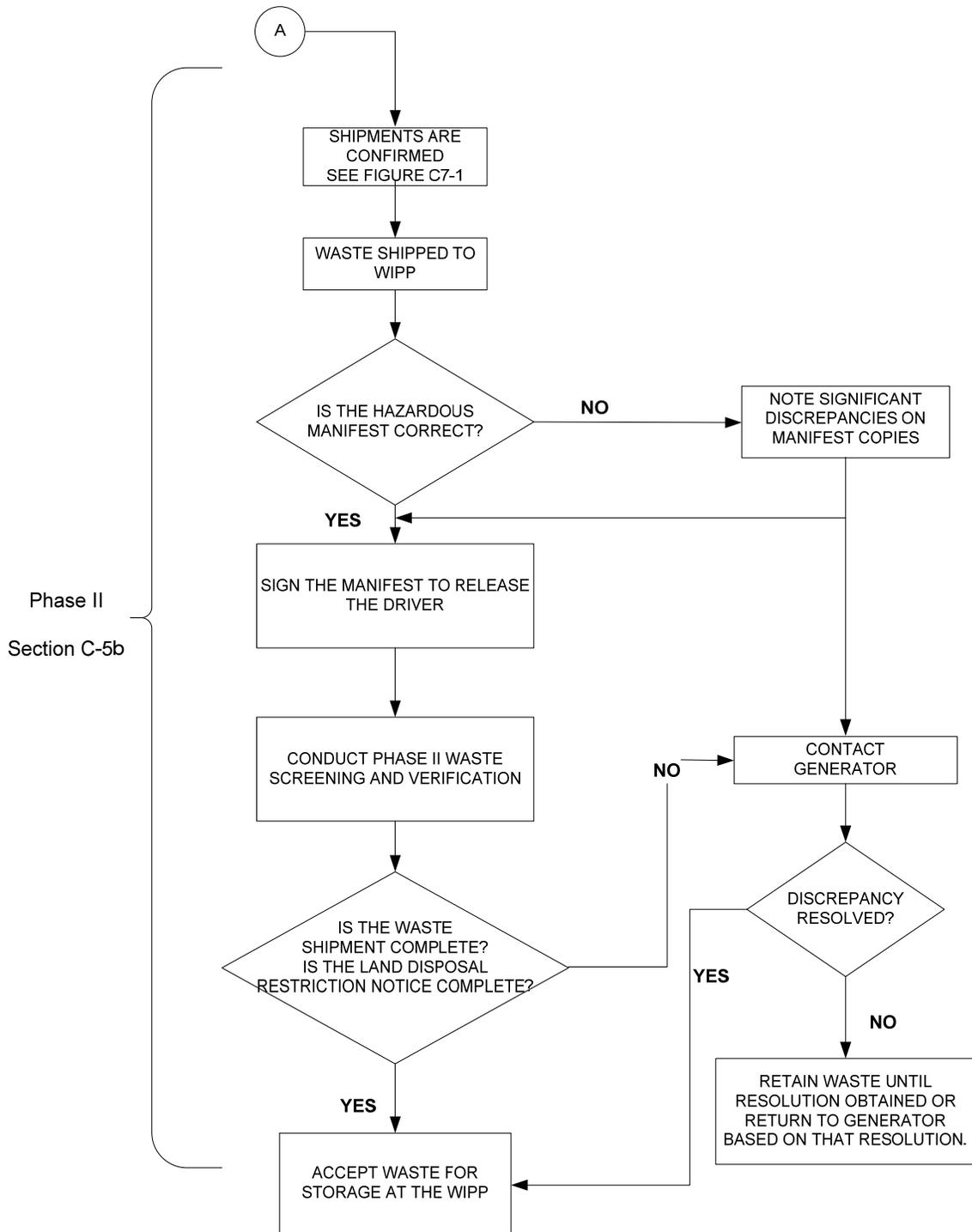


Figure C-3. TRU Mixed Waste Screening and Verification Flow Diagram (continued)



C1 WASTE CHARACTERIZATION TESTING METHODS

CCP characterizes TRU waste for shipment to WIPP by using the following methods, if applicable, for characterization of TRU waste. These methods include requirements for radiography or VE. This section describes these methods, QC requirements.

C1-1 Radiography

Radiography aids in the examination and identification of containerized waste. There is no equivalent EPA method. Personnel perform radiography in accordance with the procedures to meet the WAP requirements described in the following sections (T53, T508). Additionally, these procedures include instructions specific to the radiography method used. For example, details about moving the drum in a specific way in order to detect liquids are included in the radiography procedures. QAOs for radiography are contained in Section C3-2a.

All activities required to achieve the radiography objectives are described in the QAPjP and radiography-related Standard Operating Procedures (SOPs). A radiography system (e.g., real time radiography, digital radiography/computed tomography) normally consists of the following components: x-ray-producing device; imaging system; an enclosure for radiation protection; a waste container handling system; an audio/visual recording system; and an operator control and data acquisition station. The radiography equipment has controls (or an equivalent process) that allow the operator to control image quality for materials of varying density. On some radiography systems, it should be possible to vary the voltage, typically between 150-400 kilovolts (kV), to provide an optimum degree of penetration through the waste. For example, high-density material is examined with the x-ray device set on the maximum voltage. This ensures maximum penetration through the waste container. Low-density material is examined at lower voltage settings to improve contrast and image definition. The imaging system utilizes a fluorescent screen, a low-light television camera, or x-ray detectors to generate the image.

To perform radiography, the waste container is scanned while the operator views the television screen. A video and audio recording is made of the waste container scan and is maintained as a Non-Permanent Record. A radiography data form is also used to document the waste matrix code, to ensure that the waste container contains no ignitable, corrosive, or reactive waste by documenting the absence of liquids in excess of TSDF-WAC limits or compressed gases, and verify that the physical form of the waste is consistent with the waste stream description documented in the AK Summary Report. Containers whose contents prevent full examination of the remaining contents are subject to VE unless the CCP certifies that VE would provide no additional relevant information for that container based on the acceptable knowledge information for the waste stream. Such certification shall be documented in CCP records.

For containers which contain classified shapes and undergo radiography, the radiography video and audio recording will be considered classified. The radiography data forms will not contain classified information.

The radiography system involves qualitative and semi-quantitative evaluations of visual displays. Operator training and experience are the most important considerations for ensuring QC in regard to the operation of the radiography system and for interpretation and disposition of radiography results. Only trained personnel are allowed to operate radiography equipment.

Standardized training requirements for radiographic operators are based on existing industry standard training requirements.

Formal and on-the-job training (OJT) elements are listed below. In addition, radiography personnel are instructed in the specific waste generating practices, typical packaging configurations, and associated waste material parameters expected to be found in the waste matrix code. OJT and apprenticeship of radiography personnel are conducted by experienced, qualified radiography operators prior to qualification of training candidates. Training describes the site equipment, waste configurations, and the level of waste characterization efforts for the CCP. In addition, radiography operators are trained on the types of waste, physical forms, packaging configurations, and QC requirements for site waste characterized by the CCP.

All of the radiography QC requirements specified in the QAPjP shall be incorporated into the CCP training programs and radiography operations, so that data quality and comparability will not be affected (T28, T510). The radiography training program is subject to the audit and surveillance program. The training program includes items required by CCP-QP-002, *CCP Training and Qualification Plan*, and the required elements listed below.

One or more training containers with items (including prohibited items) common to the waste streams to be characterized and internal containers of various sizes is scanned semi-annually by each operator. The audio and video media are then reviewed by a supervisor to ensure that operators' interpretations remain consistent and accurate. Imaging system characteristics are verified on a routine basis.

Independent replicate scans and replicate observations of the video output of the radiography process are performed under uniform conditions and procedures. Independent replicate scans are performed on one waste container per day or once per testing batch, whichever is less frequent by a qualified radiography operator that was not involved in the original scan of the waste container. Independent observations of one scan (not the replicate scan) are made once per day or once per testing batch, whichever is less frequent, by a qualified radiography operator that was not involved in the original scan of the waste container. A testing batch is a suite of waste containers

undergoing radiography using the same testing equipment. A testing batch can be up to 20 waste containers without regard to waste matrix.

Oversight functions include periodic audio/video media reviews of accepted waste containers and are performed by qualified radiography operators that were not involved in the original scans of the waste containers. The results of this independent verification are available to the radiography operators who performed the original scans. The SPM is responsible for monitoring the quality of the radiography data and calling for corrective action, when necessary.

C1-2 Visual Examination

The CCP may use VE to verify container's contents. VE is performed by physically examining the contents of waste containers to verify the Waste Matrix Code and to verify that the container is properly included in the appropriate waste stream (T6, T113, T163, T500).

VE is conducted on a waste container to identify and describe all waste items, packaging materials, and waste material parameters in the waste containers. VE activities are documented on video/audio media or by using a second operator to provide additional verification by reviewing the contents of the waste container to ensure correct reporting. When VE is performed using a second operator, each operator performing the VE will observe for themselves the waste being placed in the waste container or the contents within the examined waste container when waste is not removed. The results of all VE are documented on VE data forms, which are used to document the Waste Matrix Code, ensure that the waste container contains no ignitable, corrosive, or reactive waste by documenting the absence of liquids in excess of TSDF-WAC limits or compressed gases, and verify that the physical form of the waste is consistent with the waste stream description documented in the AK Summary.

VE recorded on video/audio media shall meet the following minimum requirements:

- The video/audio media shall record the waste packaging event for the container such that all waste items placed into the container are recorded in sufficient detail and shall contain an inventory of waste items in sufficient detail that another trained VE operator can identify the associated waste material parameters.
- The video/audio media shall capture the waste container identification number.
- The personnel loading the waste container shall be identified on the video/audio media or on packaging records traceable to the loading of the waste container.

- The date of loading of the waste container will be recorded on the video/audio media or on packaging records traceable to the loading of the waste container.

VE performed using two generator site personnel shall meet the following minimum requirements:

- At least two generator site personnel who witnessed the packaging of the waste shall approve the data forms or packaging records attesting to the contents of the waste container.
- The data forms or packaging records shall contain an inventory of waste items in sufficient detail that another trained VE operator can identify the associated waste material parameters.
- The waste container identification number shall be recorded on the data forms or packaging records.

VE video/audio media of containers which contain classified shapes, shall be considered classified information. VE data forms or packaging records will not contain classified information.

Waste container packaging records may be used to meet the VE DQOs, Sections C-4a(1). These records must meet the minimum requirements listed above for either VE recorded on video/audio media or VE performed by two generator site personnel, and shall be reviewed by operators trained and qualified to the requirements listed below. The operators will prepare data forms based on the VE records. VE BDRs will be prepared, reviewed, and approved as described in Section C-4 and Section C3.

There will be standardized training for VE. VE operators are instructed in the specific waste-generating processes, typical packaging configurations, and waste material parameters expected to be found in each waste matrix code at the site. The training covers the various waste configurations generated/stored at the site. The particular physical forms and packaging configurations will vary at each site, so operators will be trained to examine the types of waste that are generated, stored and/or characterized at that site. Training will include the following regardless of Summary Category Group:

- Identifying and describing the contents of a waste container by examining all items in waste containers of previously packaged waste
- Identifying when VE cannot be used to meet the DQOs

VE personnel are requalified once every two years.

| The SPM designates VE experts. Designated VE experts are familiar with the waste-generating processes that have taken place at the site and waste types for wastes being characterized at a particular site. VE experts are responsible for the overall direction and implementation of VE activities for the CCP at that site. VE experts meet the qualification and training requirements specified in CCP-QP-002 and make decisions based on training, previous experience, and knowledge of the waste stream.

C2 RESERVED

C3 QUALITY ASSURANCE OBJECTIVES AND DATA VALIDATION
TECHNIQUES FOR WASTE CHARACTERIZATION METHODS

C3-1 Validation Methods

The CCP performs validation of qualitative and quantitative data so that characterization data are of known and acceptable quality.

The qualitative data or descriptive information generated by radiography and VE are not amenable to statistical data quality analysis. However, radiography and VE are complementary techniques yielding similar data for determining the waste matrix code. The waste matrix code is determined to ensure that the container is properly included in the appropriate waste stream.

Data validation is used to assess the quality of waste characterization data collected based on project precision, accuracy, completeness, comparability, and representativeness objectives. These objectives are described below:

Precision

Precision is a measure of the mutual agreement among multiple measurements.

Accuracy

Accuracy is the degree of agreement between a measured result and the true or known value.

Completeness

Completeness is a measure of the amount of valid data obtained from a method compared to the total amount of data collected.

Comparability

Comparability is the degree to which one data set can be compared to another.

Representativeness

Representativeness is the degree to which sample data represent a characteristic of a population.

C3-2 Nondestructive Examination Methods

Quality Assurance Objectives

The QAOs for nondestructive examination (NDE) are detailed in this section. NDE can be either radiography or VE. If the QAOs in this section are not met, then corrective actions are taken. NDE is a primary qualitative determination. The objective of NDE for the program is to verify that the physical form of waste matches the waste stream description as determined by AK and the absence of prohibited items. CCP describes all of the activities required to achieve these objectives in this QAPJP and the operating procedures listed in Section C1.

C3-2a Radiography (T53, T508)

Data to meet the QAOs for radiography are obtained from a video and audio recorded scan provided by trained radiography operators at the Host site. Results are also recorded on a radiography data form. The precision, accuracy, completeness, and comparability objectives for radiography data follow.

Precision

Precision is maintained by reconciling any discrepancies between two radiography operators with regard to identification of the waste matrix code, liquids in excess of TSDf-WAC limits, and compressed gases through independent replicate scans and independent observations. The precision of radiography is also verified prior to use by tuning precisely enough to demonstrate compliance with QAOs listed in Section C-4a through viewing an image test pattern.

Accuracy

Accuracy is obtained by using a target to tune the image for maximum sharpness and by requiring operators to successfully identify 100 percent of the items required to meet the DQOs for radiography specified in Section C. Section C-4a(1) in a training container during their initial qualification and subsequent requalification.

Completeness

To ensure completeness, video and audio media recording of the radiography of the radiography examination and a validated radiography data form are obtained for 100 percent of retrievably stored waste containers that are examined by radiography. All video and audio media recordings and radiography data forms are subject to validation as indicated in Section C3-7.

Comparability

The comparability of radiography data from different operators is enhanced by using standardized radiography procedures and operator qualifications.

C3-2b Visual Examination (T6, T113, T163, T500)

Results must be recorded on a VE data form. The precision, accuracy, completeness, and comparability objectives for VE data are presented below.

Precision

Precision is maintained by reconciling any discrepancies between the operator and the independent technical reviewer with regard to identification of waste matrix code, liquids in excess of TSDf-WAC limits, and compressed gases.

Accuracy

Accuracy is maintained by requiring operators to pass a comprehensive examination and demonstrate satisfactory performance in the presence of the VE expert during their initial qualification. VE operators shall be requalified every two years.

Completeness

A validated VE data form will be obtained for 100 percent of the waste containers subject to VE.

Comparability

The comparability of VE data from different operators shall be enhanced by using standardized VE procedures and operator qualifications.

C3-3 Acceptable Knowledge (T5)

AK documentation provides qualitative information that cannot be assessed according to specific data quality goals that may be used for quantitative techniques. To ensure that the AK process is consistently applied, the CCP complies with the following data quality requirements for AK documentation.

- Precision - The qualitative determinations, such as compiling and assessing AK documentation, do not lend themselves to statistical evaluations of precision. However, the AK information is assessed by independent review during internal and external audits.

- Accuracy - The percentage of waste containers which require reassignment to a new waste matrix code and/or designation of a different hazardous waste number, based on testing data and discrepancies identified during waste confirmation is reported as a measure of AK accuracy. The CCP calculates the AK accuracy in accordance with CCP-TP-005, *CCP Acceptable Knowledge Documentation*.
- Completeness - The AK record contains 100 percent of the required information (Section C4-3). The usability of the AK information is assessed for completeness during audits.
- Comparability - The CCP ensures comparability by meeting the training requirements and complying with the minimum standards outlined for procedures that are used to implement the AK process. The CCP assign hazardous waste numbers in accordance with Section C4-3b and will provide the information regarding the waste being characterized to other sites that store or generate a similar waste stream.
- Representativeness - Representativeness is a qualitative parameter that is satisfied by ensuring that the process of obtaining, evaluating, and documenting AK information is performed in accordance with the minimum standards established in Section C4. The CCP assesses and documents the limitations of the AK information used to assign hazardous waste numbers (e.g., purpose and scope of information, date of publication, type and extent to which waste parameters are addressed).

The CCP complies with the nonconformance notification and reporting requirements of Section C3-7 of this QAPjP if the results of testing specified in this QAPjP are inconsistent with AK documentation.

In addition, performance with regard to the use of AK information is tracked by assessing the frequency of inconsistencies among information, and documenting AK inconsistencies identified through radiography and VE. The AK process and waste stream documentation are evaluated through internal assessments by QA and assessments by auditors external to the organization (i.e. the Permittees).

C3-4 Data Review, Validation, and Verification Requirements

Data review, validation, and verification are performed at the CCP data generation level in accordance with CCP data generation level characterization procedures. Data validation and verification are performed at the project level by the CCP project staff.

Data review determines whether raw data was properly collected and ensures that it was properly reduced. Data validation verifies that the reported data satisfy the

WAP requirements and are accompanied by signature release. Data verification authenticates that the data are presented accurately, represent the testing activities performed, and have been subject to the appropriate level of review. By meeting the requirements in this section, the CCP ensures that records furnish documentary evidence of quality.

The following types of BDRs (as applicable to the characterization process in use) are required for data validation and verification, and quality assurance activities:

- The Testing BDR or equivalent includes all data pertaining to radiography or VE for up to 20 waste containers without regard to waste matrix. Table C3-3, Testing Batch Data Report Contents lists the information required in Testing BDRs (identified with an "X") and other information necessary for data validation but optional for inclusion in the Testing BDR (identified with an "O")

C3-4a Data Generation Level (T6, T32, T53, T106, T113, T143, T188, T500, T508)

The minimum requirements for raw data collection and management include the following:

- All data are signed and dated in reproducible ink by the individual generating the data, or by use of unalterable electronic signature.
- All data are recorded clearly, legibly, and accurately in field records.
- All changes to original data are lined out, initialed, and dated by the individual making the change. A justification for changing the original data may also be included. Original data are not obliterated or otherwise disfigured so as to be unreadable. Data changes are made only by the individual who originally collected the data, or by an individual authorized to change the data.
- All data are transferred and reduced from field records completely and accurately.
- All field records are maintained as specified in Table C-2.
- All data are organized in standard formats (i.e., BDRs) specified in procedures.

- All electronic and video data are stored appropriately to ensure that waste container and associated QC data are readily retrievable. In the case of classified information, additional security provisions may apply that could restrict retrievability. The additional security provisions will be documented in CCP procedures when required.

Data review, validation, and verification at this level involves scrutiny and signature release from qualified independent technical reviewers not involved in the generation or recording of the data under review as specified below. Individuals conducting the data review, validation, and verification use checklists that address the items in this section. Checklists are forwarded with BDRs to the CCP Project Office.

C3-4a(1) Independent Technical Review (T6, T32, T53, T106, T113, T143, T188, T500, T508)

The independent technical reviewer ensures by review of raw data that data generation and reduction are technically correct, calculations are verified correct, deviations are documented, and QA/QC results are complete, documented correctly, and compared against the criteria specified in this QAPjP. This review is to validate and verify all of the work done by the originator.

One hundred percent of the BDRs must receive an independent technical review. This review is performed by an individual by a trained and qualified individual who was not involved in the generation or recording of the data under review. The independent technical review is performed as soon as practicably possible in order to determine and correct negative quality trends in the testing, process. However at a minimum, the independent technical review must be performed before any waste associated with the data reviewed is managed, stored, or disposed at WIPP. The reviewer(s) must release the data as evidenced by signature, and as a consequence ensure the following:

- Data generation and reduction were conducted in a technically correct manner in accordance with the methods used (procedure revision) and data were reported in the proper units and correct number of significant figures.
- Calculations were verified by a valid calculation program, a spot check of verified calculation programs, and/or 100 percent check of all hand calculations. Values that are not verifiable to within rounding or significant difference discrepancies are rectified prior to completion of independent technical review.
- The data were reviewed for transcription errors.

- The testing, data QA documentation for BDRs is complete and includes, as applicable, raw data, calculation records, calibration records, (or reference to an available calibration package), and Corrective action is taken to ensure that all BDRs are complete and include all necessary raw data prior to completion of the independent technical review.
- Radiography tapes were reviewed (independent observation) on a waste container basis at a minimum of once per testing batch or once per day of operation, whichever is less frequent (Section C1-3). The radiography tape was reviewed against the data reported on the radiography form to ensure that the data are correct and complete.
- QAOs have been met according to the methods outlined in Sections C3-2 and C3-3.

C3-4b Project Level

Data validation and verification at this level involves scrutiny and signature release from the SPM (T1, T500, T508). Any nonconformance identified during this process is documented on an NCR (Section C3-7).

The SPM ensures that a repeat of the data generation level review, verification and validation is performed on the data for a minimum of one randomly chosen waste container quarterly (every three months). This exercise documents that the data generation level review, verification, and validation are being performed in accordance with implementing procedures.

C3-4b(1) Site Project Manager Review

The SPM review is the final validation that all of the data contained in BDRs from the data generation level are complete and are properly reviewed, as evidenced by signature release and completed checklists.

One hundred percent of the BDRs have SPM signature release. At a minimum, the SPM signature release is performed before any waste associated with data reviewed is shipped to the WIPP. This signature release ensures the following (T1, T500, T508):

- Data generation level independent technical review, validation, and verification are performed as evidenced by completed review checklists and by the appropriate signature releases.
- Independent technical reviewers were not involved in the generation or recording of the data under review.

- Batch data review checklists are complete.
- BDRs are complete and data are properly reported (i.e., data are reported in the correct units, with the correct significant figures.
- Data are within established data assessment criteria and meet all applicable QAOs as described in Sections C3-2 through C3-3.
- Testing batch QC checks (e.g., replicate scans, measurement system checks) were properly performed. Radiography data are complete and acceptable based on evidence of videotape review of one waste container per day or once per testing batch, whichever is less frequent, as specified in C1-1.

C3-4b(2) Preparing SPM Summary and Data Validation Summary

To document the project level validation and verification described above, the SPM (or designee) prepares an SPM Summary, and Data Validation Summary (T1). These reports may be combined to eliminate redundancy. The SPM Summary includes a validation checklist for each BDR. Checklists for the SPM Summary are of sufficient detail to validate all aspects of a BDR that affect data quality.

The SPM Data Validation Summary provides verification that, on a per waste container as evidenced by BDR reviews, all data have been validated in accordance with this QAPjP. The SPM Data Validation Summary identifies each BDR data report reviewed (including all waste container numbers), describes how the validation was performed and whether or not problems were detected (e.g., nonconformance reports), and includes a statement indicating that data are acceptable. Summaries must include release signatures.

C3-4b(3) Preparing Waste Stream Characterization Packages

If requested by the Permittee, the SPM provides a Waste Stream Characterization Package. The SPM must ensure that the Waste Stream Characterization Package (described in Section C3-6b(3)) supports the waste characterization determinations.

C3-4c Permittee Level

Not applicable to CCP. This is a Permittee function.

C3-5 Reconciliation with Data Quality Objectives

Reconciling the results of waste testing with DQOs ensures that data are of adequate quality to support regulatory compliance programs. When waste is characterized by

CCP, reconciliation with the DQOs is the responsibility of the SPM and occurs prior to waste shipment (T2).

C3-5a Reconciliation at the Project Level

The SPM ensures that all data generated and used in decision making meet the DQOs providing in Section C-4a(1). DQO reconciliation is the responsibility of the SPM, who assesses whether data of sufficient type, quality, and quantity to meet the DQOs (Section C-4a(1)) have been collected and determines whether the variability of the data set is small enough to provide the required confidence in the results.

The SPM determines for each waste stream characterized, whether sufficient data have been collected to determine the following required waste parameters (T2):

- Waste matrix code.
- Waste material parameter weights.
- That each container of waste is transuranic radioactive waste.
- Whether the waste stream exhibits a toxic characteristic or is listed under 40 CFR §261, Subpart C.
- Whether the waste stream contains listed waste found in 20.1.4.200 NMAC incorporating 40 CFR §261, Subpart D.
- Whether the waste stream can be classified as hazardous or nonhazardous
- Whether the overall completeness, comparability, and representativeness QAOs were met for the testing procedures specified in Sections C3-2 and C3-3 prior to submittal of a WSPF for a waste stream or waste stream lot.

If the SPM determines that insufficient data have been collected to make the determinations listed above, additional data collection efforts are undertaken. The reconciliation of a waste stream is performed, as described in Section C4, prior to submittal of the WSPF and CIS to the Permittees for that waste stream. The CCP does not ship TRU waste stream to the WIPP unless the SPM determines that the WAP-required waste parameters listed above are met for that waste stream.

C3-5b Reconciliation at the Permittee Level

Not applicable to the CCP. This is a Permittee function.

C3-6 Data Reporting Requirements

Data reporting requirements define the type of information and the method of transmittal for data transfer from the data generation level to the CCP Project Office and from the CCP Project Office to the Permittee.

C3-6a Data Generation Level

Data are transmitted by hard copy or electronically (with hard copies available on demand) from the data generation level to the CCP Project Office. Transmitted data include all BDRs, and data review checklists. The BDR forms and checklists must contain all the information required by the testing techniques described in Sections C1 through C6, as well as the signature releases to document the review, validation, and verification as described in Section C3-4. BDRs and checklists are on approved forms as provided in procedures.

BDRs are forwarded to the SPM. All BDRs are assigned serial numbers, and each page is numbered. The serial number is the same as the batch number. QA documentation, including raw data, is maintained in either testing facility files, or the CCP files in accordance with CCP-QP-008.

C3-6b Project Level

The CCP Project Office prepares a WSPF for each waste stream certified for shipment to the WIPP based on information obtained from AK and BDRs, if applicable (T2). The CCP Project Office ensures that the CIS and Waste Stream Characterization Package (when requested by the Permittee) are prepared as appropriate. The SPM verifies these reports are consistent with information found in BDRs. Summarized testing are included in the CIS. The contents of the WSPF, the CIS, and the Waste Stream Characterization Package are discussed in the following sections.

A Waste Stream Characterization Package is submitted only when requested by the Permittee. These reports are reviewed, validated, and verified by the SPM (T2).

After approval of a WSPF and the associated CIS by the DOE, CCP will maintain a cross reference of container identification number to each BDR.

A Waste Stream Characterization Package will be transmitted by hard copy or electronically from the SPM to the Permittees when requested.

C3-6b(1) Waste Stream Profile Form (T2)

The WSPF shall include the following information:

- Site name
- Site EPA ID
- Date of audit report approval by NMED (if obtained)
- Original generator of waste stream
- Whether waste is CH or RH
- The Waste Stream WIPP Identification Number
- Summary category group
- Waste matrix code group
- Waste Material Parameter Weight Estimates per unit of waste
- Waste stream name
- A description of the waste stream
- Applicable U.S. EPA Hazardous Waste Numbers
- Applicable TRUPACT Content (TRUCON) codes
- A listing of AK documentation used to identify the waste stream
- The waste characterization procedures used and the reference and date of the procedure
- Certification signature of SPM, name, title, and date signed

C3-6b(2) Characterization Information Summary (T2)

The CIS shall include the following elements, if applicable:

- Data reconciliation with DQOs.

- Radiography and VE summary to document that prohibited items are not present, and to verify that the physical form of the waste matches the waste stream description as determined by AK.
- A justification for the selection of radiography and/or VE as an appropriate method for characterization of the waste.
- A complete listing of all container identification numbers used to generate the WSPF, cross-referenced to each BDR.
- Complete AK summary, including waste stream name and number, the point of generation, waste stream volume (current or projected), generation dates, TRUCON codes, Summary Category Group, Waste Matrix Code(s) and Waste Matrix Code Group, other TRU Waste Baseline Inventory Report (TWBIR) information, waste stream description, areas of operation, generation processes, RCRA determinations, radionuclide information, all references used to generate the AK summary, and any other information required by Section C4-2b.
- Method for determining Waste Material Parameter Weights per unit of waste.
- List of any AK Sufficiency Determinations requested for the waste stream.
- Certification through acceptable knowledge or testing that any waste assigned the Hazardous Waste Number of U134 (hydrofluoric acid) no longer exhibits the characteristic of corrosivity. This is verified by ensuring that no liquid is present in U134 waste.

C3-6b(3) Waste Stream Characterization Package (T2)

The waste stream characterization package is submitted when requested by the Permittee and includes the following information:

- WSPF (Section C3-6b(1))
- Applicable CIS (Section C3-6b(2))
- Complete AK summary (Section C3-6b(2))
- BDRs supporting the characterization of the waste stream and any others requested by the Permittee
- Raw testing data requested by the Permittee

C3-6b(4) WIPP Waste Information System Data Reporting (T30)

The WWIS/WDS data dictionary includes the data, field formats, and limits associated with waste characterization data established by the WAP. These data are subject to edit and limit checks that are performed automatically by the database, as defined in the "Waste Data System User's Manual" (DOE 2009).

C3-7 Nonconformances (Q5)

The status of CCP activities are monitored and controlled by the SPM in accordance with the nonconformance and procurement procedures identified below. This includes nonconformance identification, documentation, and reporting.

Nonconformances

Nonconformances are uncontrolled and unapproved deviations from an approved plan or procedure (e.g., this QAPjP). In the context of this QAPjP, deficiencies and nonconformances are synonymous. Nonconforming items and activities are those that do not meet the CCP requirements, procurement document criteria, or approved work procedures. The CCP personnel are responsible for promptly reporting any nonconformance to management. The CCP reconciles and corrects nonconformance items, as appropriate, in accordance with the DOE-CBFO QAPD. The disposition of nonconforming items is identified and documented and nonconforming items are identified by marking, tagging, or segregating and appropriate notifications are made to the site. When a nonconformance related to the CCP is observed or detected, the QA is notified, and affected management reviews the content of the NCRs and assists the QA in processing the NCR. For each container selected for confirmation pursuant to Section C7, the Permittees will examine the respective NCR documentation to verify NCRs have been dispositioned for the selected container.

The CCP identifies and documents nonconformances as follows:

- The NCR procedure establishes the method for CCP personnel to identify, document, control, and disposition nonconforming activities, processes, items, and materials. NCRs are initiated by any individual identifying a nonconformance during performance of work tasks, random observations, inspections, or any other review of CCP procedures, operations, and activities. The CCP personnel identify deficient items by marking, tagging, or segregating them. This procedure implements the requirements of Section 1.3.2 (Nonconformances) of the DOE-CBFO QAPD.
- Corrective Action Reporting and Control procedures establishes the method for personnel to identify and correct potential problems and conditions adverse to quality, in addition to precluding their recurrence, and if necessary,

stopping associated work activities (Q8). Any person may temporarily stop work prior to evaluation of the condition by the responsible CCP supervisor. The CCP supervisor then evaluates and reports the condition, as necessary, in accordance with CCP-QP-029, *CCP Corrective Action Management*. This procedure implements the requirements of Section 1.3.3 (Corrective Action) of the DOE-CBFO QAPD.

Management at all levels fosters a "no-fault" attitude to encourage the identification of nonconforming items and processes within the CCP. Nonconformances may be detected and identified by anyone performing activities in support of this QAPJP, including:

- The CCP project staff - during field operations, supervision of subcontractors, data validation and verification, and self-assessment
- Testing Facility staff - during the preparation for and performance of testing; calibration of equipment; QC activities; data review, validation, and verification; and self-assessment.
- QA personnel - during oversight activities or audits

An NCR is prepared for each nonconformance identified. Each NCR is initiated by the individual(s) identifying the nonconformance. The NCR is then processed by knowledgeable and appropriate personnel. The NCR includes or references results of, QC tests, audit reports, internal memoranda, or letters, as appropriate. The NCR provides the following information:

- Identification of the individual(s) identifying or originating the nonconformance
- Description of the nonconformance
- Method(s) or suggestions for correcting the nonconformance (corrective action)
- Schedule for completing the corrective action
- An indication of the potential ramifications and overall usability of the data, if applicable
- Any approval signatures specified in the nonconformance procedures.

The SPM oversees the NCR process for the CCP, identifies and tracks the status of deficiencies, reports this information to the Permittees, and is responsible for verifying the close-out of the NCRs.

Nonconformances are tracked and trended in accordance with procedures (Q5, Q14) that establish the method for evaluating trends in nonconformances and identifying appropriate corrective actions.

The SPM ensures that relevant project personnel are notified of nonconformances and verifying completion of corrective action for nonconformances.

Nonconformance to DQOs

For any non-administrative nonconformance related to applicable requirements specified in this QAPjP which are first identified at the SPM signature release level (i.e., a failure to meet a DQO), the SPM will provide a written notification to the Permittees within seven (7) calendar days of identification and shall also provide a nonconformance report within 30 calendar days of identification of the incident. The CCP implements a corrective action process and resolves identified nonconformances prior to shipment of any affected waste to the WIPP.

DOE Corrective Action Process

This section is not applicable to the CCP.

C3-8 Special Training Requirements and Certifications (Q2)

The SPM is responsible for ensuring that all personnel maintain proficiency in the work performed and identifies additional training if required. The training and qualification process for CCP personnel and subcontracted personnel who perform work to support the CCP is documented and controlled. In accordance with these plans, only personnel trained to applicable CCP-related plans and procedures perform CCP activities. Before performing CCP-related activities, assigned staff receive indoctrination into the scope, purpose, and objectives of the WAP and the specific QAOs of assigned tasks. Personnel assigned to perform activities under this QAPjP have the education, experience, and training applicable to the functions associated with the work.

Evidence of personnel proficiency and demonstration of competence in the task(s) assigned are demonstrated and documented. All personnel designated to work on specific aspects of the WAP maintain qualification (i.e., training and certification) throughout the duration of the work as specified in this QAPjP and applicable procedures. Job performance is evaluated and documented at periodic intervals, as specified in the appropriate implementing procedures.

CCP personnel involved in WAP activities (as flowed down in this QAPjP) receive continuing training to ensure that job proficiency is maintained and documented. The due date for required continuing training courses and requalification shall be the end of the month of the anniversary date when the training was previously completed. Training

includes both education in principles and enhancement of skills. Job performance is evaluated and documented at periodic intervals, as specified in the implementing procedures or in CCP-QP-002. Documentation of training, consisting of training records that specify the scope of training, dates of completion, and job proficiency are maintained by the CCP Project Office and/or the site records system as QA records.

The minimum qualifications for certain specified positions for the WAP are summarized in Table C3-2. This QAPjP specify the titles and minimum training and qualification requirements for personnel performing QAPjP activities.

Evaluation of CCP personnel qualifications includes a comparison of the job description to the skills, training, and experience included in the individual's resume, training records, and other documented bases for job assignment. This evaluation is also performed for personnel who change positions because of a transfer or promotion as well as personnel assigned to short-term or temporary work assignments that may affect the quality of CCP activities. Procedures identify the responsible persons for ensuring all personnel maintain proficiency in the work performed and identify any additional training that may be required.

C3-9 Changes to WAP Related Plans or Procedures

Controlled changes to WAP-related CCP plans or procedures are managed through the document control process (Q10). The SPM reviews all nonadministrative changes and evaluates whether those changes could impact DQOs specified in the WAP. Any changes to the WAP-related plans or procedures that could impact DQOs (i.e., those changes that require prior approval of the DOE as defined in Section C5-2) are reported to the DOE within five days of identification by the project level review.

Table C3-1. Waste Material Parameters and Descriptions

Waste Material Parameter	Description
Iron-Based Metals/Alloys	Iron and steel alloys in the waste excluding the waste container materials.
Aluminum-Based Metals/Alloys	Aluminum or aluminum-based alloys in the waste materials.
Other Metals	All other metals found in the waste materials (e.g., copper, lead, zirconium, tantalum, etc.).
Other Inorganic Materials	Non-metallic inorganic waste, including concrete, glass, firebrick, ceramics, sand, and inorganic sorbents.
Cellulosics	Materials generally derived from high polymer plant carbohydrates (e.g., paper, cardboard, wood, cloth).
Rubber	Natural or man-made elastic latex materials (e.g., surgeon's gloves, leaded rubber gloves).
Plastics (Waste Materials)	Generally man-made materials, often derived from petroleum feedstock (e.g., polyethylene and polyvinylchloride).
Organic Matrix	Cemented organic resins, solidified organic liquids and sludges.
Inorganic Matrix	Any homogeneous materials consisting of sludge or aqueous-based liquids that are solidified with cement, calcium silicate, or other solidification agents; (e.g., waste water treatment sludge, cemented aqueous liquids, and inorganic particulates).
Soils/Gravel	Generally consists of naturally-occurring soils that have been contaminated with inorganic waste materials.
Steel (Packaging Materials)	208-liter (55-gallon) drums.
Plastics (Packaging Materials)	90-mil polyethylene drum liner and plastic bags.

Table C3-2. Minimum Training and Qualification Requirements

Personnel	Requirements
Radiography Operators ^a	Site-specific training based on waste matrix codes and waste material parameters as described in Section C3-4; requalification every 2 years

^a Operators are responsible for the actual operation of testing equipment.

**CCP-PO-001, Rev. 21
CCP TRU Waste Characterization Quality
Assurance Project Plan**

Effective Date: 05/31/2013

Page 71 of 99

Table C3-3. Testing Batch Data Report Contents

Required Information	Radiography	VE	Comment
Batch Data Report Date	X	X	
Batch number	X	X	
Waste container number	X	X	
Waste stream name and/or number	O	O	
Waste matrix code	X	X	Summary Category Group included in waste matrix code.
Implementing procedure (specific version used)	X	X	If procedure cited contains more than one method, the method used must also be cited. Can use revision number, date, or other means to track specific version used.
Container type	O	O	Drums, Pipe Overpack, SWB, TDOP, etc.
Video media reference	X	X	Reference to video media applicable to each container. For VE for newly generated waste, video media is not required if two trained operators review the contents of the waste container to ensure correct reporting.
Imaging check	O	N/A	
Camera check	N/A	O	
Audio check	O	O	
QC documentation	X	X	

Table C3-3. Testing Batch Data Report Contents (continued)

Required Information	Radiography	VE	Comment
Verification that the physical form matches the waste stream description and waste matrix code	X	X	Summary Category Group included in waste matrix code.
Comments	X	X	
Reference to or copy of associated NCRs, if any	X	X	Copies of associated NCRs must be available.
Verify absence of prohibited items	X	X	
Operator signature and date of test	X	X	Signatures of both operators required for visual verification of AK.
Data review checklists	X	X	All data review checklists will be identified.

LEGEND:

X = Required in Batch Data Report

O = Information must be documented and traceable; inclusion in Batch Data Report is optional.

C4 ACCEPTABLE KNOWLEDGE**C4-1** Introduction

The RCRA regulations codified in 40 CFR and the New Mexico Hazardous Waste Management Regulations in 20.4.1 NMAC, Subparts 100 through 600, Subpart 800, and Subpart 900, authorize the use of AK in appropriate circumstances by waste generators or treatment, storage, or disposal facilities to characterize hazardous waste. AK is described in *Waste Analysis at Facilities that Generate, Treat, Store and Dispose of Hazardous Waste: A Guidance Manual* (EPA 1994a). AK, as an alternative to waste sampling and analysis, is used to meet all or part of RCRA waste characterization requirements (EPA 1994a).

EPA's 1994 Waste Analysis Guidance Manual broadly defines the term "acceptable knowledge" to include process knowledge, whereby detailed information on the wastes is obtained from existing published or documented waste analysis data or studies conducted on hazardous waste generated by processes similar to that which generated the waste; facility records of analysis performed before the effective date of RCRA; and sampling and waste analysis data obtained from generators of similar wastes that send their wastes off-site for treatment, storage, or disposal (EPA 1994a). If it is determined that AK alone is insufficient to accurately characterize a waste, radiography and/or VE, may be used to complete the waste characterization process and satisfy the requirements of the WAP. AK is used in TRU waste characterization activities in five ways:

- To delineate TRU waste streams
- To assess whether TRU mixed wastes comply with the applicable requirements of the Treatment, Storage, and Disposal Facility Waste Acceptance Criteria (TSDF-WAC)
- To assess whether TRU mixed wastes exhibit hazardous characteristic (20 NMAC 4.1.200, incorporating 40 CFR § 261 Subpart C)
- To assess whether TRU mixed wastes are listed wastes (20 NMAC 4.1.200, incorporating 40 CFR § 261 Subpart D)
- To estimate waste material parameter weights

Radiography and/or VE may be performed to augment the characterization of wastes based on AK when an AK Sufficiency Determination has not been requested by the generator/storage site or, if requested, has not been granted by the DOE (see Section C4-3d). TRU waste streams undergo applicable provisions of the AK process prior to shipment of the waste to WIPP.

C4-2 Acceptable Knowledge Documentation

The CCP collects and compiles, in a logical sequence, AK information that progresses from general facility information (TRU waste management program information) to more detailed waste-specific information (TRU waste stream information).

The CCP implements the AK process as specified in the WAP to characterize TRU waste (T5). The AK information is then compiled into the AK report (and supporting documentation), as shown in Figure C4-1, Compilation of Acceptable Knowledge Documentation, in Attachment C-4 of the WAP.

The following sections include the information the Permittee will require for the CCP to characterize TRU waste using AK. Because waste generating processes are site-specific, CCP will, as necessary, augment the required AK records with additional supporting information as discussed in Section C4-2c. If the required information is not available for a particular waste stream, the waste stream is not eligible for an AK Sufficiency Determination as specified in Section C4-3d.

C4-2a Required TRU Waste Management Program Information

TRU waste management program information clearly defines waste categorization schemes and terminology, provides a breakdown of the types and quantities of TRU waste that are generated and stored by the site (and processed by the CCP), and describes how waste is tracked and managed, including historical and current operations. Information related to TRU waste certification procedures and the types of documentation (e.g., WSPFs) used to summarize AK are also provided.

The following information is included as part of the AK written record:

- A map of the site with the areas and facilities involved in TRU waste generation, treatment, and storage identified
- Facility mission description as related to TRU waste generation and management
- Description of the operations that generate TRU waste at the site
- Description of waste identification and characterization schemes used at the site or facility (e.g., content codes, item description codes)
- Types and quantities of TRU waste generated, including historical generation through future projections. Includes time and facility/site of generation
- Description of correlation of waste streams generated from the same building and process (e.g., sludge, combustibles, metals, and glass)

- Waste certification procedures for TRU wastes to be shipped to the WIPP

C4-2b Required TRU Waste Stream Information

The CCP uses AK to delineate site-specific waste streams for shipment to the WIPP. The available process information and data that supports the AK used to characterize waste streams are compiled in AK summary reports and supporting documentation in accordance with CCP-TP-005. The type and quantity of supporting documentation may vary by waste stream, depending on the waste generating process and site specific requirements imposed by the Permittee. At a minimum, the waste process information on each waste stream includes the following written information:

- Areas and buildings from which the waste stream was or is generated
- The waste stream volume and time period of waste generation
- Waste generating process described for each building (e.g., batch waste stream generated during decommissioning operations of glove boxes), including processes associated with U134 waste generation, if applicable
- Documentation regarding how the site has historically managed the waste, including the historical regulatory status of the waste (i.e., TRU mixed versus TRU non-mixed waste)
- Process flow diagrams. In the event that a process flow diagram cannot be created, a description of the waste generating process, rather than a formal process flow diagram, is used to satisfy this requirement. The use of the waste generating process description is justified, and the justification is placed in the AK record
- Material inputs or other information that identify the chemical content of the waste stream and physical waste form (e.g., glove box materials and chemicals handled during glove box operations; events or processes that may have modified the chemical or physical properties of the waste stream after generation; data obtained through VE of newly generated waste that later undergoes radiography; information demonstrating neutralization of U134 [hydrofluoric acid] and waste compatibility)

The AK written record includes a summary that identifies all sources of waste characterization information used to delineate the waste stream. The basis and rationale for delineating each waste stream, based on the parameters of interest, is clearly summarized and traceable to referenced documents. Assumptions made in delineating each waste stream also are identified and justified. If discrepancies exist between required information, then the CCP may consider applying all hazardous waste numbers indicated by the information to the subject waste stream but must assess and

evaluate the information to determine the appropriate hazardous waste numbers consistent with RCRA requirements.

Implementing procedures address the following AK processes:

- Identifying and assigning the physical waste form of the waste
- Delineating waste streams and assigning Summary Category Groups and waste matrix codes
- Resolving inconsistencies in AK documentation
- Radiography and VE, if applicable
- For newly generated waste, procedures describing process controls used to ensure prohibited items (specified in Section C) are documented and managed
- Procedures to ensure that radiography and VE include a list of prohibited items that the operator verifies are not present in each container (e.g., liquid exceeding TSDF-WAC limits, corrosives, ignitables, reactives, and incompatible wastes)
- Procedures for documenting how changes to waste matrix code, waste stream assignment, and associated hazardous waste numbers based on material composition are documented for any waste
- Procedures that ensure the assignment of EPA hazardous waste numbers is appropriate, consistent with RCRA requirements, and considers site historical waste management
- Procedures for estimating waste material parameter weights

C4-2c Additional Acceptable Knowledge Information

CCP shall obtain additional acceptable knowledge information. CCP shall collect information as appropriate to augment required information and provide any other information obtained to further delineate waste stream. Adequacy of this information shall be assessed by DOE during audits. CCP will use this information to compile the acceptable knowledge written record.

All additional specific, relevant acceptable knowledge documentation assembled and used in the acceptable knowledge process, whether it supports or contradicts any required acceptable knowledge documentation, shall be identified and an explanation provided for its use (e.g., identification of a toxicity characteristic). Additional

documentation may be used to further document the rationale for the hazardous characterization results. The collection and use of additional information shall be assessed by DOE during site audits to ensure that hazardous waste characterization is supported, as necessary, by such information. Similar to required information, if discrepancies exist between additional information and the required information, then CCP may consider applying all hazardous waste numbers indicated by the additional information to the subject waste stream, but must assess and evaluate the information to determine the appropriate hazardous waste numbers consistent with RCRA requirements. All information considered must be documented and placed in the auditable record, including applicable discrepancy resolution documentation.

Additional AK documentation includes, but is not limited to, the following information:

- Process design documents (e.g., Title II Design)
- Standard operating procedures that may include a list of raw materials or reagents, a description of the process or experiment generating the waste, and a description of wastes generated and how the wastes are managed at the point of generation.
- Preliminary and final safety analysis reports and technical safety requirements
- Waste packaging records
- Test plans or research project reports that describe reagents and other raw materials used in experiments
- Site databases (e.g., chemical inventory database for Superfund Amendments and Reauthorization Act Title III requirements)
- Information from site personnel (e.g., documented interviews)
- Standard industry documents (e.g., vendor information)
- Analytical data relevant to the waste stream, including results from fingerprint analyses, spot checks, routine verification sampling or other processes that collected information pertinent to the waste stream. This may also include new information which augments required information (e.g., VE not performed in compliance with the WAP, radiography screening for prohibited items)
- Material Safety Data Sheet, product labels, or other product package information

- Sampling and analysis data from comparable or surrogate waste streams (e.g., residues, equivalent nonradioactive materials)
- Laboratory notebooks that detail the research processes and raw materials used in an experiment

C4-3 Acceptable Knowledge Training, Procedures, and Other Requirements

The CCP uses the following to characterize TRU waste by means of AK information:

- 1) compiling the required and supporting additional AK documentation in an auditable record;
- 2) auditing AK records, and
- 3) WSPF approval and waste confirmation.

C4-3a Qualifications and Training Requirements (Q2)

The CCP and site personnel responsible for compiling AK, assessing AK, and resolving discrepancies associated with AK are qualified and trained in the following areas, at a minimum:

- WAP and TSDF-WAC requirements;
- State and Federal RCRA regulations associated with solid and hazardous waste characterization;
- Discrepancy resolution and reporting; and
- CCP and site-specific procedures associated with waste characterization using AK.

Position-specific qualification and training requirements such as those listed above for functional positions within the CCP are established by the SPM and documented (Q2). The SPM ensures that personnel conducting AK activities are qualified and trained as specified.

C4-3b Acceptable Knowledge Assembly and Compilation

The CCP process allows for the consistent application of the AK process and requirements, and addresses the following requirements (T5):

- Written procedures outlining the specific methodology used to assemble AK records, including the origin of the documentation, how it is used, and any

limitations associated with the information (e.g., identify the purpose and scope of a study that included limited sampling and analysis data).

- Written procedures to compile the required AK record.
- Written procedures ensuring that unacceptable wastes (e.g., reactive, ignitable, corrosive) are identified and segregated from TRU waste populations sent to the WIPP.
- Procedures to evaluate AK and resolve discrepancies. For example, if different sources of information indicate hazardous wastes are present in a waste stream, the CCP includes all sources of information in its records and may choose to either conservatively assign hazardous waste numbers or assign only those numbers deemed appropriate and consistent with RCRA requirements. All information used to justify assignment of hazardous waste numbers must be placed in the auditable record. Further the assignment of hazardous waste numbers is traceable in the AK record to required documentation.
- Procedures to identify hazardous wastes and assign the appropriate hazardous waste numbers to each waste stream in accordance with the following minimum baseline requirements:
 - Compiling all of the required information in an auditable AK record.
 - Reviewing the compiled information and delineating waste streams. Delineation of waste streams must comply with the definition in C-0a and justify combining waste historically managed separately as TRU mixed and TRU non-mixed waste streams into a single waste stream.
 - Reviewing the compiled information to determine if the waste stream is compliant with the TSDF-WAC.
 - Reviewing the required information to determine whether the waste is listed under 20.4.1.200 NMAC (incorporating 40 CFR §261), Subpart D. Assigning all the hazardous waste numbers unless the CCP chooses to justify an alternative assignment and documents the justification in an auditable record.
 - Reviewing the required information to determine if the waste exhibits a hazardous characteristic or contains toxicity characteristic hazardous constituents specified in 20.4.1.200 NMAC (incorporating 40 CFR §261), Subpart C. If a toxicity characteristic contaminant is identified and is not included as a listed waste, sites may evaluate available data and assign the toxicity characteristic hazardous waste number consistent with RCRA

requirements. All data examined to reach the hazardous waste number determination must be placed in the auditable record and must present a clear justification for the hazardous waste number analyses.

- Reviewing the compiled information to provide an estimate of material parameter weights for each container to be stored or disposed of at WIPP.
- For newly generated wastes, procedures are developed and implemented to characterize hazardous waste using AK prior to packaging the waste.
- The CCP ensures that results of other audits of the CCP TRU waste characterization activities are available in the CCP files.
- The CCP identifies all process controls (implemented to ensure that the waste contains no prohibited items and to control hazardous waste content and/or physical form) that may have been applied to retrievably stored waste and/or may presently be applied to newly generated waste. Process controls are applied at the time of waste generation/packaging to control waste content, whereas any activities performed after waste generation/packaging to identify prohibited items, hazardous waste content, or physical form are waste characterization activities not process controls. The AK record must contain specific process controls and supporting documentation identifying when these process controls are used to control waste content. See Section C-2 for programmatic requirements related to process controls.

C4-3c Criteria for Assembling an Acceptable Knowledge Record and Delineating the Waste Stream

CCP-TP-005 describes the process for assembling AK documentation into an auditable record. The first step is to assemble the required AK information and any additional information regarding the materials and processes that generate a specific waste stream. AK records are generated in compliance with the following criteria (T5):

- AK information is compiled in an auditable record, including a road map for applicable information.
- The overview of the facility and TRU waste management operations in the context of the facility's mission is correlated to specific waste stream information.
- Correlations between waste streams, with regard to time of generation, waste generating processes, and site-facilities are described in the AK summary report (Section C4-2b). For newly generated wastes, the rate (or schedule) and quantity of waste to be generated are also maintained in the AK process descriptions compiled in the AK summary report.

- A reference list provided in Section C4-3b that identifies documents, databases, QA protocols, and other sources of information that support AK information.

Container inventories are delineated into waste streams by correlating the container identifications to all of the required AK information and additional information (T5). The CCP assigns a waste matrix code and waste stream description to each container of waste using AK.

C4-3d AK Sufficiency Determination Request Contents (T5)

The CCP may submit an AK Sufficiency Determination Request (Determination Request). The Determination Request shall include, at a minimum.

- A complete AK Summary that addresses the following technical requirements:
 - Executive Summary
 - Waste Stream Identification Summary including a demonstration that the waste stream has been properly delineated and meets the Permit definition of waste stream (Attachment C, Introduction);
 - Mandatory Program Information (including, but not limited to, facility location and description, mission, defense waste assessment, spent nuclear fuel and high-level waste assessment, description of waste generating processes, research/development [as necessary], facility support operations [as applicable], types and quantities of TRU waste generated, correlation of waste streams to buildings/processes, waste identification and categorization, physical form identifiers);
 - Mandatory Waste Stream Information (including, but not limited to, Area and Building of Generation, waste stream volume/period of generation) (including, for newly generated waste, the rate and quantity of waste to be generation), waste generating activities, types of waste generated, material input related to physical form and identification of percentage of each waste material parameter in the waste stream, chemical content information including hazardous constituents and hazardous waste identification, prohibited item content (including documented evidence that the waste meets the TSDF-WAC Permit Sections 2.3.3.1 through 2.3.3.10), waste packaging, presence of filter vents, number of layers of confinement;
 - Types of supporting information gathered;
 - Container specific data (if available and relevant); and

- A complete reference list including all mandatory and additional information.
- An AK roadmap (defined as a cross reference between mandatory programmatic and mandatory waste stream information, with references supporting these requirements).
- A complete reference list including all mandatory and additional documentation.
- Additional relevant information for the required programmatic and waste stream data addressed in the AK Summary, examples of which are presented in Section C4-2c.
- Identification of any mandatory requirements supported only by upper tier documents (i.e., there is insufficient supporting data).
- Description or other means of demonstrating that the AK process described in the Permit was followed (for example, AK personnel were appropriately trained; discrepancies were documented, etc.).
- Information showing that CCP has developed a written procedure for compiling the AK information and assigning hazardous waste numbers as required in Section C4-3b.
- Information showing that CCP has assessed the AK process (e.g., internal audits, Section C4-3b).

C4-3e Requirements for Re-evaluating Acceptable Knowledge Information (T5)

AK includes information on the waste physical form, base materials composing the waste, and the waste generating process. Waste testing (i.e., radiography/VE) may be used to augment AK information prior to waste shipment. If retrievably stored waste must be repackaged, either VE prior to or during waste packaging or radiography after waste packaging, shall be used to confirm acceptable knowledge information.

The WSPF and CIS (including the AK summary) will be reviewed by the Permittees for each waste stream prior to DOE approval of the WSPF. The Permittees review will ensure that the submitted AK information was collected under procedures that ensure implementation of the WAP, provides data sufficient to meet the DQOs in Section C-4a(1), and allow the Permittees to demonstrate compliance with the waste analysis requirements of the Permit. A detailed discussion of the Permittees' waste stream review and DOE's WSPF approval process is provided in Section C-1d.

Re-Evaluation Based on Visual Examination and Radiography

The CCP has established procedures for re-evaluating AK if the results of waste confirmation indicate that the waste to be shipped does not match the approved waste stream, or if data obtained from VE or radiography for waste streams without an AK Sufficiency Determination exhibit this discrepancy. The CCP procedures describe how waste AK is re-evaluated, the waste is reassigned, and appropriate hazardous waste numbers assigned. If the re-evaluation requires that the waste matrix code be changed for the waste stream or the waste does not match the approved waste stream, the following minimum steps are taken to re-evaluate AK:

- Existing information is reviewed based on the container identification number and all differences in hazardous waste number assignments are documented
- If differences exist between the hazardous waste numbers that were assigned, the information is re-assessed, and required AK information associated with the new designation is documented
- Reassess and document all testing data associated with the waste
- The reassignment of the waste matrix code is documented and verified (e.g., verification that the waste was generated within the specified time period, area, and building and waste generating process, and that the process material inputs are consistent with the waste material parameters of waste identified during VE or radiography)
- Changes to AK records are recorded
- If discrepancies exist in the AK information for the revised waste matrix code, the discrepancies are documented in an NCR in accordance with CCP-QP-005. The NCR documents the segregation of the affected portion of the waste stream, and defines the corrective actions necessary to fully characterize the waste.

C4-3f Acceptable Knowledge Data Quality Requirements (T5)

DQOs for testing techniques are described in Section C3. Testing results are used to augment the characterization of wastes based on AK. To ensure the process is consistently applied and ensure that AK information is accurate, complete, and is representative of the waste stream being evaluated, the CCP complies with data quality requirements for AK documentation in Section C3.

The CCP addresses quality control by tracking its performance with regard to the use of AK by:

- Assessing the frequency of inconsistencies among information

- Documenting the results of waste discrepancies identified by CCP during waste confirmation using radiography, review of radiography audio/video recordings, VE, or review of VE records

In addition, the AK process and waste stream documentation is evaluated through internal assessments by QA organizations and assessment by auditors or observers external to the CCP (i.e., DOE-CBFO, NMED, EPA).

C4-3g Audits of Acceptable Knowledge

The DOE conducts an initial audit of the CCP prior to certifying the CCP for shipment of waste to the WIPP. This audit establishes an approved baseline that is reassessed annually by the DOE. The CCP does not certify waste for disposal until all corrective actions have been completed.

C5 QUALITY ASSURANCE PROJECT PLAN REQUIREMENTS

C5-1 Quality Assurance Project Plans

The CCP has developed and implemented this QAPjP to address the applicable waste characterization requirements specified in the WAP (P1). This QAPjP includes the qualitative or quantitative criteria to ensure that waste characterization activities are being performed satisfactorily. The organization(s) and position(s) responsible for implementation of this QAPjP are identified in Section B. Throughout this QAPjP, CCP documents are referenced that detail how each of the required elements of the characterization project are performed.

This QAPjP follows the format of the WAP and is implemented by the CCP through procedures that address TRU waste characterization activities. Compliance with CCP documents ensures that tasks are performed in a consistent manner that results in achieving the quality required under the QA program. The organization, format, content, and designation of the CCP procedures is described in the CCP-QP-010, *CCP Document Preparation, Approval, and Control*.

C5-2 Document Review, Approval, and Control (Q10)

Prior to the implementation of characterization activities, the SPM ensures that written procedures have been developed for implementing the requirements of this QAPjP. Procedures ensure that tasks are performed in a consistent manner and achieve the quality required for the quality assurance program. The SPM is responsible for ensuring that the procedures meet the organization, format, content, and designation of standard operating procedures. CCP procedures are written so that they may be implemented at several sites simultaneously. Site-specific issues such as safety policies, technical specification requirements, or organizational necessities, may require the CCP to prepare site-specific procedures to supplement the procedures used to ensure WAP compliance. These procedures are identified in the SOW or site interface document. These procedures are prepared and controlled as are the other existing CCP operating procedures and are subject to site specific review requirements. As a minimum, the following requirements are addressed in CCP procedures:

- Responsibilities of the organizations affected by the document,
- Technical, regulatory, quality assurance, or other program requirements.
- Sequential description of work to be performed,
- Quantitative or qualitative acceptance criteria sufficient for determining that activities were satisfactorily accomplished.

- Prerequisites, limits, precautions, process parameters, and environmental conditions,
- Special qualifications and training requirements,
- Verification points and hold points,
- Methods for demonstrating that the work was performed as required (such as provisions for recording inspection and test results, checklists, or sign-off blocks), and
- Identification and classification of QA records to be generated by the implementing procedure.

Procedures also include examples of data (e.g., reports, forms, and data validation checklists), as appropriate. Internal review and approval requirements are specified. In addition, CCP procedures are formatted, as follows:

- Purpose
- Scope
- Requirements
- Responsibilities
- Procedures
- Records

CCP procedures are reviewed for consistency with the QAPjP in accordance with the above listed requirements. The SPM is responsible for ensuring that the most current version of all procedures is readily available for use as needed by project personnel after procedures have been reviewed and approved for use.

The SPM ensures that the preparation, issuance, and change to documents that specify quality requirements or prescribe activities affecting quality for the CCP program be controlled to assure that correct and current documents are used and referenced. The CCP uses a document control format consisting of a unique document identification number, current revision number, date, and page number, which will be placed in the header on the individual pages of the document. CCP documents are delineated into five areas: quality procedures, denoted by CCP-QP-XXX; technical procedures, denoted by CCP-TP-XXX; health and safety plans denoted by CCP-HSP-XXX; configuration management denoted by CCP-CM-XXX; and CCP Project Office documents (i.e., this QAPjP), denoted by CCP-PO-XXX. "XXX" denotes a sequential number.

Qualified and independent personnel review all CCP documents (including this QAPjP) prior to approval and issuance. Reviews consider the technical adequacy, completeness, and correctness of CCP documents and the inclusion of and compliance

with the requirements established by the WAP. Approval is indicated by a signature and date page included in the front of the document. The SPM ensures that:

- Revisions to site implementing documents are denoted by including the current revision number and date on the document title page and each page of the document.
- Revised pages are marked in redline/strikeout for expeditious review of the entire document.
- A vertical bar, indicating the change to the text, is included along the left-hand margin of the page, except in the case of full document revisions.
- Revised document submittals identify the changes, the reason for the changes, and the justification for concluding that the revised contents continue to satisfy the requirements of the QA program.
- Revisions that affect performance criteria or data quality (e.g., sampling or analytical methods, QAO, calibration requirements), other than editorial or minor changes, undergo the same level of review and approval as the baseline version of each document. These documents are reviewed and approved by the same functional organizations that performed the original review/approval, unless other organizations are specifically designated in accordance with approved procedures. Editorial or minor changes may be made without the same level of review and approval as the original or otherwise changed documents. The following items are considered editorial or minor changes:
 - Correcting grammar or spelling (provided the meaning has not changed),
 - Renumbering sections or attachments,
 - Updating organizational titles (*A change in an organizational title accompanied by a change in responsibilities is not considered an editorial change*),
 - Changes to non-quality-affecting schedules,
 - Revised or reformatted forms, providing the original intent is not altered, and
 - Attachments marked “Example” or exhibits clearly intended to be representative only

- CCP personnel are responsible for reporting any obsolete or superseded information to the SPM
- All CCP changes are evaluated and approved by the SPM, the appropriate personnel are notified before implementation, and the affected documents are revised as necessary
- Changes that affect performance criteria or data quality, and would take the activity out of compliance because they alter a requirement are not made without prior approval by DOE.

In addition, the SPM is responsible for ensuring that non-administrative changes, non-editorial changes, or changes that could affect performance criteria or data quality, such as sample handling and custody requirements, sampling and analytical testing procedures, quality assurance objectives, calibration requirements, or QC sample acceptance criteria (i.e., those changes that require prior approval of DOE as defined in Section C5-2) shall be reported to DOE within five days of identification by the project level review. The SPM ensures that the document control system is implemented to control the process for initiating, revising, modifying, reviewing, and distributing project documents and changes to project documents. As potential changes to project information are identified by the SPM, documents are revised as necessary and distributed to affected organizations in accordance with this procedure.

C6 AUDIT AND SURVEILLANCE PROGRAM

C6-1 Introduction

The WIPP audit and surveillance program ensures that the CCP conducts testing of wastes in accordance with the current WAP and that waste certification information is being managed properly. The CCP addresses deficiencies identified during the audits. A deficiency is any failure to comply with an applicable requirement of the WAP.

C6-2 Audit Procedures

This section does not apply to the CCP.

C6-3 Audit Position Functions

This section does not apply to the CCP.

C6-4 Audit Conduct

During audit interviews or audit meetings, CCP may be advised of deficiencies identified within their areas of responsibility to establish a clear understanding of the identified condition.

The personnel will be given the opportunity to correct any deficiency that can be corrected during the audit period.

When a deficiency is identified by the DOE audit team, a Corrective Action Report (CAR) is issued to the CCP. The CCP reviews the CAR which is used to evaluate the extent and cause of the deficiency, and submits an approved response to the Permittees indicating remedial actions and actions taken to preclude recurrence. If these responses to the CAR are acceptable, DOE communicates the acceptance to the CCP.

The CCP completes the remedial actions and actions to preclude recurrence and requests DOE to close the CAR. Following the completion of corrective actions, the Permittees may schedule and perform a verification visit to assure that corrective actions have been completed and are effective.

The corrective action response includes a discussion of the investigation performed to determine the extent and impact of the deficiency, a description of the remedial actions taken, determination of root cause, and action taken to preclude recurrence.

The CCP responds to any deficiencies and observations within thirty (30) days of receipt of any CARs and indicates the corrective action taken or to be taken. If the corrective action has not been completed, the response indicates the expected date the action will be completed. CARs applicable to WAP requirements are resolved prior to waste shipment.

C7 TRU WASTE CONFIRMATION

Introduction

This section of the QAPjP describes the actions that the Permittees will take to approve and accept waste for and disposal at the WIPP, including waste confirmation activities. Discussion of the Permittees' actions that are relevant to CCP will be included here. The Permittees demonstrate compliance with the WIPP-WAP by ensuring that the waste characterization processes performed by CCP produce data compliant with the WIPP-WAP and through the waste screening and verification processes. Verification occurs at three levels: 1) the data generation level, 2) the project level, and 3) the Permittee level. The Permittees also examine a representative subpopulation of waste prior to shipment to confirm that the waste contains no ignitable, corrosive, or reactive waste; and that assigned EPA Hazardous Waste Numbers are allowed by the WIPP RCRA Permit. The waste confirmation activities described herein occur prior to shipment of the waste from the CCP to WIPP.

C7-1 Permittee Confirmation of TRU Mixed Waste

This section does not apply to CCP.

C7-1a Permittee Confirmation of a Representative Subpopulation of the Waste

The Permittees will confirm that the waste contains no ignitable, corrosive, or reactive waste through radiography or the use of VE of a statistically representative subpopulation of the waste. Prior to shipment to WIPP, waste confirmation will be performed on randomly selected containers from each CH- and RH-TRU waste stream shipment.

C7-1b Radiography Methods Requirements

This section describes the portion of the Permittees' confirmation program that applies to CCP.

For containers that have been characterized using radiography by CCP in accordance with the method in Section C1-1, the Permittees may perform confirmation by review of CCP's radiography audio/video recordings.

When confirmation is performed by review of audio/video recorded scans produced by CCP as specified in Section C1-1, independent observations will be performed on two waste containers per shipment or two containers per day, whichever is less frequent.

C7-1c Visual Examination Methods Requirements

This section describes the portion of the Permittees' confirmation program that applies to CCP.

VE may also be used as a waste confirmation method by the Permittees. VE shall be conducted by the Permittees in accordance with written standard operating procedures to describe the contents of a waste container. VE shall be conducted to identify and describe all waste items, packaging materials, and waste material parameters. VE may be used by the Permittees to examine a statistically representative subpopulation of the waste certified for shipment to WIPP to confirm that the waste contains no ignitable, corrosive, or reactive waste. This is achieved by confirming that the waste contains no liquid in excess of TSDf-WAC limits or compressed gases, and that the physical form of the waste matches the waste stream description documented on the WSPF. During packaging, the waste container contents are directly examined by trained personnel. This form of waste confirmation may be performed by the Permittees at the waste generator/storage site. VE may be documented on video and audio media, or by using a second operator to provide additional verification by reviewing the contents of the waste container to ensure correct reporting. When VE is performed using a second operator, each operator performing the VE shall observe for themselves the waste being placed in the waste container or the contents within the examined waste container when waste is not removed. The results of all VE shall be documented on data forms.

In order to keep radiation doses as low as reasonably achievable, the Permittees may use their own trained VE operators to perform VE for waste confirmation by reviewing CCP VE data, which includes VE data forms, waste packaging records, and may also include audit/video media. If the Permittees perform waste confirmation by review of video media, the video record of the VE must be sufficiently complete for the Permittees to confirm the Waste Matrix Code and waste stream description, and verify the waste contains no liquid in excess of TSDf-WAC limits or compressed gases. CCP VE video/audio media subject to review by the Permittees shall meet the following minimum requirements:

- The video/audio media shall record the waste packaging event for the container such that all waste items placed into the container are recorded in sufficient detail and shall contain an inventory of waste items in sufficient detail that a trained Permittee VE operator can identify the associated waste material parameters.
- The video/audio media shall capture the waste container identification number.

- The personnel loading the waste container shall be identified on the video/audio media or on packaging records traceable to the loading of the waste container.
- The date of loading of the waste container will be recorded on the video/audio media or on packaging records traceable to the loading of the waste container.

The Permittees may also use their own trained VE operators to perform VE for waste confirmation by reviewing VE data forms or packaging logs prepared by the generator during their packaging of the waste. To be acceptable, the CCP VE data must be signed by two CCP personnel who witnessed the packaging of the waste and must provide sufficient information for the Permittees to determine that the waste container contents match the waste stream description on the WSPF and the waste contains no liquid in excess of TSDf-WAC limits or compressed gases. The Permittees will document their review of CCP VE data on Permittee VE data forms. CCP VE forms or packaging records subject to review by the Permittees shall meet the following minimum requirements:

- At least two generator site personnel shall approve the data forms or packaging records attesting to the contents of the waste container.
- The data forms or packaging records shall contain an inventory of waste items in sufficient detail that a trained Permittee VE operator can identify the associated waste material parameters.
- The waste container identification number shall be recorded on the data forms or packaging records.

VE video media of containers which contain classified shapes shall be considered classified information. VE data forms will not contain classified information.

C7-2 Noncompliant Waste Identified During Waste Confirmation

This section describes the portion of the Permittees' confirmation program that applies to CCP.

If the Permittee identifies noncompliant waste during waste confirmation at a CCP site, (i.e., the waste does not match the waste stream description documented in the WSPF or there is liquid in excess of TSDf-WAC limits or compressed gases) the waste will not be shipped.

The DOE will suspend further shipments of the affected waste stream and issue a CAR to CCP. Shipments of affected waste streams will not resume until the CAR has been closed.

As part of the corrective action plan in response to the CAR, CCP will evaluate whether the waste characterization information documented in the CIS or WSPF for the waste stream must be updated because the results of waste confirmation for the waste stream indicated that the TRU waste being examined did not match the waste stream description. CCP will thoroughly evaluate the potential impacts on waste that has been shipped to WIPP. The DOE will evaluate the potential that prohibited items were shipped to WIPP and what remedial actions should occur, if any. The results of these evaluations will be provided to NMED before shipments of affected waste stream resume. If the CIS and/or WSPF requires revision, shipments of the affected waste stream shall not resume until the revised waste stream waste characterization information has been reviewed and approved by the DOE. If CCP certifies noncompliant waste at a site more than once during a running 90-day period, the DOE will suspend acceptance of CCP's waste from that CCP site until the DOE finds that all corrective actions have been implemented and the site complies with all applicable requirements of the WIPP-WAP.

C8 REFERENCES

1. Hatayama, H.K., Chen, J.J., de Vera, E.R., Stephens, R.D., and Storm, D.L. 1980. "A Method for Determining the Compatibility of Hazardous Wastes," EPA-600/2-80-076. U.S. Environmental Protection Agency, Ohio
2. Lockheed Idaho Technologies Company. 1995. "Position for Determining Gas Phase Volatile Organic Compound Concentrations in Transuranic Waste Containers," Idaho National Environmental Lab Report, INEL-95/0109/Revision 1. Lockheed Idaho Technologies Company, Idaho
3. New Mexico Environment Department (NMED). 1999. *Waste Isolation Pilot Plant (WIPP) Hazardous Waste Facility Permit, #NM4890139088*. New Mexico Environment Department, New Mexico
4. National Archives and Records Administration. Title 40, Code of Federal Regulations, *Protection of Environment*. Washington, D.C.
5. General Services Purchasing Division. Title 20 New Mexico Administrative Code, Environmental Protection. Santa Fe, New Mexico
6. U.S. Department of Energy (DOE). 1999a. *Quality Assurance Program Document*, DOE/CBFO-94-1012. Carlsbad Field Office, U.S. Department of Energy, Carlsbad, New Mexico
7. U.S. Department of Energy (DOE). DOE/WIPP-02-3122, *Transuranic Waste Acceptance Criteria for the Waste Isolation Pilot Plant*
8. U.S. Department of Energy (DOE). 1999d. *Safety Analysis Report for the TRUPACT-II Shipping Package*, NRC Docket Number 71-9218. Carlsbad Field Office, U.S. Department of Energy, Carlsbad, New Mexico
9. U.S. Department of Energy (DOE). 2009. *Waste Data System User's Manual*, DOE/WIPP-09-3427. Carlsbad Field Office, U.S. Department of Energy, Carlsbad, New Mexico
10. U.S. Department of Energy 2010. Carlsbad Field Office, Office of the National TRU Program, *Performance Demonstration Program Plan for Analysis of Simulated Headspace Gases*, DOE/CBFO-95-1076. Carlsbad Field Office, U.S. Department of Energy, Carlsbad, New Mexico

11. U.S. Department of Energy 2010. Carlsbad Field Office, Office of the National TRU Program, *Performance Demonstration Program Plan for RCRA Constituent Analysis of Solidified Wastes*, DOE/CBFO-95-1077. Carlsbad Field Office, U.S. Department of Energy, Carlsbad, New Mexico
12. U.S. Department of Energy (DOE). 1997b. *WIPP RCRA Part B Permit Application*, Revision 6, DOE/WIPP-91-005. Waste Isolation Pilot Plant, U.S. Department of Energy, Carlsbad, New Mexico
13. U.S. Department of Energy (DOE). 1995. *Transuranic Waste Baseline Inventory Report*, DOE-CAO-95-1121. Carlsbad Field Office, U.S. Department of Energy, Carlsbad, New Mexico
14. U.S. Environmental Protection Agency (EPA). *Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air* (EPA/625/R-96/010B, January 1999)
15. U.S. Environmental Protection Agency (EPA), 1996 or latest update. *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*, EPA SW-846, 3rd ed., U.S. EPA, Office of Solid Waste and Emergency Response, Washington, D.C. United States Environmental Protection Agency
16. U.S. Environmental Protection Agency (EPA). 1994a. *Waste Analysis at Facilities that Generate, Treat, Store, and Dispose of Hazardous Wastes, A Guidance Manual*, #05-520. Office of Solid Waste and Emergency Response, United States Environmental Protection Agency
17. U.S. Environmental Protection Agency (EPA). 1994b. *Laboratory Data Validation Functional Guidelines for Evaluating Organics Analyses*, EPA/540/R/94/082. United States Environmental Protection Agency
18. U.S. Environmental Protection Agency (EPA). 1994c. *Laboratory Data Validation Functional Guidelines for Evaluating Inorganics Analyses*, EPA/540/R/94/083. United States Environmental Protection Agency
19. Westinghouse Savannah River Company (WSRC). 2000 or latest update. *Statement of Work IE8863 for Clarification of SRS TRU Waste*. Westinghouse Savannah River Company
20. U.S. EPA, 2002. *Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites*. OSWER 9285.6-10, Office of Emergency and Remedial Response, Washington, D.C.

ACRONYMS AND ABBREVIATIONS

AK	acceptable knowledge
BDR	Batch Data Report
CAR	Corrective Action Report
CBFO	Carlsbad Field Office
CCP	Central Characterization Program
CFR	Code of Federal Regulations
CH	contact-handled
CIS	Characterization and Information Summary
DA	data administrator
DOE	U.S. Department of Energy
DQO	data quality objective
EPA	U.S. Environmental Protection Agency
HWA	New Mexico Hazardous Waste Act
HWDU	Hazardous Waste Disposal Unit
HWFP	Hazardous Waste Facility Permit
ID	identification number
INL	Idaho National Laboratory
kV	kilovolts
LDR	Land Disposal Restrictions
nCi	nanocuries
NCR	nonconformance report
NDE	nondestructive examination
NMAC	New Mexico Administrative Code
NMED	New Mexico Environment Department
NWP	Nuclear Waste Partnership
OJT	on-the-job training
PCB	polychlorinated biphenyls
PDP	Performance Demonstration Program
QA	quality assurance
QAO	quality assurance objective
QAPD	Quality Assurance Program Document
QAPjP	quality assurance project plan
QC	quality control
RCRA	Resource Conservation and Recovery Act
RH	remote-handled
RIDS	records inventory and disposition schedule
SLB2	standard large box 2
SOP	standard operating procedure
SOW	Statement of Work
SPM	site project manager
SRS	Savannah River Site
SWB	standard waste box
TDOP	ten-drum overpack
TRU	transuranic

ACRONYMS AND ABBREVIATIONS (Continued)

TRUCON	<i>TRUPACT Content (Code)</i>
TSDf-WAC	<i>Treatment, Storage, and Disposal Facility Waste Acceptance Criteria</i>
TWBIR	<i>Transuranic Waste Baseline Inventory Report</i>
VE	visual examination
VOC	volatile organic compound
WAP	Waste Analysis Plan
WDS	Waste Data System
WIPP	Waste Isolation Pilot Plant
WSPF	Waste Stream Profile Form
WWIS	WIPP Waste Information System

Attachment 1 – Implementing Procedures

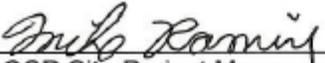
Reference Number	Procedure Number	Procedure Title
Q1	CCP-QP-001	CCP Graded Approach
Q2	CCP-QP-002	CCP Training and Qualification Plan
Q5	CCP-QP-005	CCP TRU Nonconforming Item Reporting and Control
Q8	CCP-QP-008	CCP Records Management
Q10	CCP-QP-010	CCP Document Preparation, Approval, and Control
Q14	CCP-QP-014	CCP Quality Assurance Trend Analysis and Reporting
Q15	CCP-QP-015	CCP Procurement
Q16	CCP-QP-016	CCP Control of Measuring and Testing Equipment
Q17	CCP-QP-017	CCP Identification and Control of Items
Q18	CCP-QP-018	CCP Management Assessment
Q19	CCP-QP-019	CCP Quality Assurance Reporting to Management
Q21	CCP-QP-021	CCP Surveillance Program
Q22	CCP-QP-022	CCP Software Quality Assurance Plan
Q23	CCP-QP-023	CCP Handling, Storage and Shipping
Q26	CCP-QP-026	CCP Inspection Control
Q27	CCP-QP-027	CCP Test Control
Q28	CCP-QP-028	CCP Records Filing, Inventorying, Scheduling, and Dispositioning
Q29	CCP-QP-029	CCP Corrective Action Management
Q30	CCP-QP-030	CCP Written Practice for the Qualification of CCP Helium Leak Detection Personnel
Q40	CCP-QP-040	Support Training
T1	CCP-TP-001	CCP Project Level Data Validation and Verification

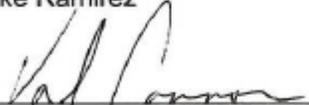
Attachment 1 – Implementing Procedures (Continued)

Reference Number	Procedure Number	Procedure Title
T2	CCP-TP-002	CCP Reconciliation of DQOs and Reporting Characterization Data
T5	CCP-TP-005	CCP Acceptable Knowledge Documentation
T6	CCP-TP-006	CCP Visual Examination Technique for Idaho National Laboratory (INL) Newly Generated TRU Waste
T28	CCP-TP-028	CCP Radiographic Test Drum and Training Container Construction
T30	CCP-TP-030	CCP CH TRU Waste Certification and WWIS/WDS Data Entry
T53	CCP-TP-053	CCP Standard Real-Time Radiography (RTR) Inspection Procedure
T86	CCP-TP-086	CCP CH Packaging Payload Assembly
T113	CCP-TP-113	CCP Standard Contact-Handled Waste Visual Examination
T163	CCP-TP-163	CCP Evaluation of Waste Packaging Records for Visual Examination of Records
T500	CCP-TP-500	CCP Remote-Handled Waste Visual Examination
T508	CCP-TP-508	CCP RH Standard Real-Time Radiography Inspection Procedure
T512	CCP-TP-512	CCP Remote-Handled Waste Sampling
T530	CCP-TP-530	CCP RH TRU Waste Certification and WWIS/WDS Data Entry

CCP-PO-002 Revision 27

CCP Transuranic Waste Certification Plan

Approved by:  Date: 5-30-13
CCP Site Project Manager
Mike Ramirez

Approved by:  Date: 5-30-13
NWP Quality Assurance
Val Cannon

Approved by:  Date: 5/30/13
NTPC Manager
Ed Gulbransen

Approved by:  Date: 5-30-13
DOE-CBFO
Office of Quality Assurance Acting Director
Dennis Miehs

Approved by:  Date: 5-30-13
DOE-CBFO
Office of National TRU Program Director
J.R. Stroble

RECORD OF REVISION

Revision Number	Date Approved	Description of Revision
4	05/17/2002	Revised to reflect requirements of new Department of Energy (DOE)/WIPP 02-3122, <i>Contact-Handled Transuranic Waste Acceptance Criteria for the Waste Isolation Pilot Plant</i> (CH-WAC) (WIPP).
5	02/12/2003	Added CCP-TP-046, CCP-TP-047 AND CCP-TP-048 to Attachment 1, Table A.3-3, NDA Procedures.
6	06/11/2003	Updated to Revision 5 of the Quality Assurance Program Description (QAPD).
7	11/20/2003	Supplemented the description of the CCP organization in Section 4.1.1; added work planning criteria to Section 4.1.2[B]; revised Sections 4.10 and 4.10.2 to better describe how independent assessments are scheduled and conducted; updated procedure references.
8	01/08/2004	Added Procedures into Tables A-3.3, B-1, B-3, and B-4. Removed cancelled procedure (CCP-TP-080) from Table B-4.
9	03/15/2004	Incorporate changes to Revision 1 of DOE/WIPP-02-3122, <i>Contact-Handled Transuranic Waste Acceptance Criteria for the Waste Isolation Pilot Plant</i> and other editorial changes. Changed references to match WAC.
10	11/15/2004	Revised to add procedures into Tables B-1, B-2, B-3 and B-4 in Attachment 4: Procedure Tables. Editorial changes throughout document. Incorporated Revision 20 of the Transuranic Package Transporter Model II (TRUPACT-II) Safety Analysis Report (SAR), Revision 3 of the HalfPACT SAR, Revision 2 of the WIPP Waste Acceptance Criteria. Incorporated Carlsbad Field Office (CBFO) Document Release Record (DRR) comments.
11	02/24/2005	Revised to incorporate LANL Off-Site Source Recovery (OSR) Project. The Facility Quality Assurance Officer (FQAO) responsibilities were removed from this document to address Environmental Protection Agency (EPA) concerns regarding document consistency.
12	03/10/2005	Added procedures to Table A-3.3, Table B-1, and Table B-3. Added new Table B-3A, Solids Sampling Procedures.
13	05/09/2005	Incorporated changes to Revision 3 of DOE/WIPP-02-3122, CH-WAC for the WIPP. Updated 2.0 in Attachment 8. Updated web links in Section 5.
14	12/29/2005	Incorporated changes to Table 3.3.22, ²³⁹ Pu FGE Limits for Packages and Rev. 2 of the CH-TRAMPAC and editorial changes.

RECORD OF REVISION (Continued)

Revision Number	Date Approved	Description of Revision
15	03/22/2006	Revised to add procedures to Attachment 1, Radioassay Requirements for Contact-Handled Transuranic Waste, Table A-3.3, NDA Procedures and Attachment 4, Procedure Tables, and editorial corrections throughout. Updated Figure 2-1, Central Characterization Project (CCP) Organization. Changed all references to DOE O 414.1A to DOE O 414.1. Updated step 3.2.2(B) (B.1) and step 3.2.6(B)(B.2) to address Carlsbad Field Office (CBFO) Document Review Record (DRR) comments.
16	11/16/2006	Revised to incorporate Revision 5 of DOE/WIPP 02-3122, <i>Transuranic Waste Acceptance Criteria for the Waste Isolation Pilot Plant</i> .
17	11/16/2006	Revised in response to concerns raised during the Idaho National Laboratory (INL) Remote-Handled (RH) Audit A-06-21. Corrected Section 4.4.1[B] and Attachment 11.
18	11/16/2006	Revised to incorporate Revision 6.0 of DOE/WIPP 02-3122, <i>Transuranic Waste Acceptance Criteria for the Waste Isolation Pilot Plant</i> .
19	05/22/2007	Revised to change the references for quality planning, list CCP special processes, and add a new Section 5.7 addressing configuration management of CCP equipment.
20	11/02/2007	Revised for the addition of Remote Handled Waste shipments.
21	01/26/2009	Revised procedure lists to include new and modified procedures/titles. Also, revised to incorporate Revision 6.2 of DOE/WIPP 02-3122, <i>Transuranic Waste Acceptance Criteria for the Waste Isolation Pilot Plant</i> .
22	01/12/2010	Revised to incorporate Revision 6.4 of DOE/WIPP-02-3122, <i>Transuranic Waste Acceptance Criteria for the Waste Isolation Pilot Plant</i> .
23	04/07/2010	Revised to add Hanford Non-Destructive Assay (NDA) equipment.
24	06/30/2010	Revised to incorporate Revision 6.5 of DOE/WIPP-02-3122, <i>Transuranic Waste Acceptance Criteria for the Waste Isolation Pilot Plant</i> .
25	12/29/2010	Revised to incorporate Revision 7.0 of DOE/WIPP-02-3122, <i>Transuranic Waste Acceptance Criteria for the Waste Isolation Pilot Plant</i> and minor editorial changes.
26	07/14/2011	Revised to incorporate revision 7.1 and 7.2 of DOE/WIPP-02-3122, <i>Transuranic Waste Acceptance Criteria for the Waste Isolation Pilot Plant</i> , minor editorial changes, and delete Appendix 11.

RECORD OF REVISION (Continued)

Revision Number	Date Approved	Description of Revision
27	05/31/2013	Revised to incorporate Revision 7.3 and Revision 7.4 of DOE/WIPP-02-3122, <i>Transuranic Waste Acceptance Criteria for the Waste Isolation Pilot Plant</i> , which incorporates the changes resulting for the Class 2 Permit modification entitled "Revised Waste Analysis Plan Waste Characterization Methods" which was approved by New Mexico Environment Department (NMED) on March 13, 2013, incorporate organizational changes to reflect the transition to Nuclear Waste Partnership (NWP), to clarify the hierarchy of quality assurance (QA) program documents, and minor editorial changes.

TABLE OF CONTENTS

1.0	INTRODUCTION	9
1.1	CBFO Organization and Responsibilities	10
1.1.1	DOE-CBFO Office Director, Office of (Quality Assurance Manager)..	10
1.1.2	DOE-CBFO Office Director, Office of National TRU Program	10
2.0	ORGANIZATION OF THE CCP	12
2.1	Organization and Responsibilities	12
2.1.1	CCP Management.....	12
2.1.2	NTPC Certification Manager	13
2.1.3	CCP Certification Manager	13
2.1.4	CCP Transportation Certification Official (TCO).....	15
2.1.5	NWP Quality Assurance (QA) Manager	16
2.1.6	Quality Assurance (QA)	16
2.1.7	CCP Waste Certification Official (WCO)	18
3.0	COMPLIANCE PLAN FOR CH-WAC	20
3.1	Organization of Requirements	20
3.1.1	DOE Operations and Safety Requirements for WIPP	21
3.1.2	NRC Transportation Safety Requirements for Type B Packages.....	21
3.1.3	NMED Hazardous Waste Facility Permit Requirements	21
3.1.4	EPA Compliance Recertification Decision Requirements	21
3.1.5	EPA Approval for PCB Disposal.....	22
3.1.6	Land Withdrawal Act Requirements (Public Law 102-579)	22
3.2	Container Properties Criteria and Requirements	23
3.2.1	Payload Container Description.....	23
3.2.2	Container Weight and Center-of-Gravity	26
3.2.3	Assembly Configurations	26
3.2.4	Removable Surface Contamination (Payload Containers).....	26
3.2.5	Container Identification/Labeling	27
3.2.6	Dunnage	29
3.2.7	Filter Vents.....	30
3.3	Radiological Properties	31
3.3.1	Radionuclide Composition	31
3.3.2	Fissile Material Quantity (²³⁹ Pu FGEs).....	33
3.3.3	TRU Alpha Activity Concentration	37
3.3.4	²³⁹ Pu Equivalent Activity.....	38
3.3.5	Radiation Dose Equivalent Rate	40
3.3.6	Decay Heat	41
3.4	Physical Properties	41
3.4.1	Observable Liquid	41
3.4.2	Sealed Containers.....	42
3.5	Chemical Properties	43
3.5.1	Pyrophoric Materials	43
3.5.2	Hazardous Waste.....	44
3.5.3	Chemical Compatibility.....	45
3.5.4	Explosives, Corrosives, and Compressed Gases	46
3.5.5	HSG VOC Concentrations	47
3.5.6	Polychlorinated Biphenyl (PCB) Concentration.....	47

3.6	Data Package Contents	48
3.6.1	Characterization and Certification Data.....	48
3.6.2	Shipping Data.....	49
4.0	WASTE ACCEPTANCE REQUIREMENTS AND CRITERIA FOR RH WASTE	51
4.1	Organization of Requirements	51
4.2	DOE Operations and Safety Requirements for WIPP	52
4.3	NRC Transportation Safety Requirements.....	52
4.4	NMED Hazardous Waste Facility Permit Requirements	53
4.5	EPA Compliance Recertification Decision Requirements	53
4.6	WIPP Land Withdrawal Act Requirements (Public Law 102-579).....	54
4.7	Container Properties	55
4.7.1	Description	55
4.7.2	Weight Limits.....	56
4.7.3	Assembly Configurations	57
4.7.4	Removable Surface Contamination.....	57
4.7.5	Identification/Labeling	58
4.7.6	Dunnage	61
4.7.7	Filter Vents	61
4.8	Radiological Properties	62
4.8.1	Radionuclide Composition	63
4.8.2	²³⁹ Pu Fissile Gram Equivalent/ ²³⁵ U Fissile Equivalent Mass (FEM) ...	65
4.8.3	TRU Alpha Activity Concentration	68
4.8.4	²³⁹ Pu Equivalent Activity.....	69
4.8.5	Radiation Dose Equivalent Rate	70
4.8.6	Decay Heat	70
4.9	Physical Properties	71
4.9.1	Observable Liquid	71
4.9.2	Sealed Containers.....	72
4.9.3	Physical Form	73
4.10	Chemical Properties	74
4.10.1	Pyrophoric Materials	74
4.10.2	Hazardous Waste.....	75
4.10.3	Chemical Compatibility.....	75
4.10.4	Explosives, Corrosives, and Compressed Gases	76
4.10.5	Headspace Gas Concentrations	77
4.10.6	Polychlorinated Biphenyls (PCBs).....	77
4.11	Data Package Contents	78
4.11.1	Characterization and Certification Data.....	78
4.11.2	Shipping Data.....	79
5.0	QUALITY ASSURANCE PLAN.....	80
5.1	Organization and Quality Assurance Program.....	80
5.1.1	Organization.....	81
5.1.2	Implementation of the QA Program.....	85
5.2	Personnel Qualification and Training	87
5.2.1	Qualification Requirements	88
5.2.2	Training Requirements.....	88
5.3	Quality Improvement.....	89
5.4	Documents.....	91

5.5	Records	93
5.6	Work Process	94
	5.6.1 Work.....	94
	5.6.2 Implementing Procedures	95
	5.6.3 Item Identification and Control	96
	5.6.4 Special Processes.....	96
	5.6.5 Handling, Storage, and Shipping.....	97
5.7	Configuration Management.....	97
	5.7.1 Equipment Configuration.....	97
	5.7.2 Software Configuration.....	98
5.8	Procurement	98
	5.8.1 Procurement Document Review and Approval	99
	5.8.2 Acceptance of Items or Services.....	99
	5.8.3 Control of Supplier Nonconformances	100
	5.8.4 Commercial Grade Items	101
5.9	Inspection and Testing.....	102
	5.9.1 Qualification of Inspection and Test Personnel	103
	5.9.2 Qualification of Nondestructive Examination Personnel.....	104
	5.9.3 Inspection Planning.....	104
	5.9.4 Test Requirements.....	104
	5.9.5 Monitoring, Measuring, Testing, and Data Collection Equipment.....	105
5.10	Management Assessments.....	106
5.11	Independent Assessments.....	107
	5.11.1 Surveillances.....	107
	5.11.2 Audits	107
5.12	Sample Control Requirements.....	108
	5.12.1 Sample Identification.....	108
	5.12.2 Handling, Storing, and Shipping Samples.....	108
	5.12.3 Disposition of Nonconforming Samples	109
5.13	Data Documentation, Control, and Validation	109
5.14	Software.....	110
5.15	Performance Demonstration Program (PDP).....	110
6.0	REFERENCES.....	111

LIST OF TABLES

Table 1. Authorized Payload Container Contents	26
Table 2. ²³⁹ Pu FGE Limits for Payload Containers	34
Table 3. PE-Ci Limits.....	39
Table 4. ²³⁹ Pu FGE Limits for a Canister Shipped in an RH-TRU 72-B Package	66
Table 5. ²³⁹ Pu FGE Limits for Drums Shipped in a 10-160B Package.....	67
Table 6. ²³⁵ U FEM Limit for a Canister Shipped in an RH-TRU 72-B Package.....	67
Table 7. PE-Ci Limits.....	69
Table A-1. Data Quality Objectives (DQOs) for Radioassay	123
Table A-2. Upper Limits for %RSD vs. Number of Replicates.....	126
Table A-2.1. NDA Procedures.....	127
Table A-3. Range of Applicability	130
Table B-1. Container Management Procedures	140
Table B-2. Radiography Procedures	140
Table B-3. VE Procedures.....	140
Table B-4. GGT Procedures.....	140
Table B-5. Certification Procedures.....	140
Table B-6. Remote-Handled Procedures	141
Table C-1. PE-Ci Weighting Factors for Selected Radionuclides.....	143

LIST OF FIGURES

Figure 1-1. CCP Document Hierarchy for TRU Waste Characterization, Certification, and Transportation	11
Figure 2-1. CCP Organization	19

LIST OF APPENDIXES

Appendix 1 – Radioassay Requirements for Contact-Handled Transuranic Waste	117
Appendix 2 – Appendix 1 References	135
Appendix 3 – Acronyms and Abbreviations.....	137
Appendix 4 – Procedure Tables	140
Appendix 5 – PE-Ci Activity.....	142
Appendix 6 – Glossary	144
Appendix 7 – Payload Container Integrity Checklist.....	151
Appendix 8 – Payload Management of TRU Alpha Activity Concentration.....	155
Appendix 9 – Radiography Requirements for Contact-Handled Transuranic Waste.....	158
Appendix 10 – Visual Examination Requirements for Contact-Handled Transuranic Waste.....	164

1.0 INTRODUCTION

The Central Characterization Program (CCP) is tasked with characterizing and certifying Transuranic (TRU) waste for disposal at the Waste Isolation Pilot Plant (WIPP). Accordingly, the CCP must comply with DOE/WIPP 02-3122, *Transuranic Waste Acceptance Criteria for the Waste Isolation Pilot Plant (WAC)*. The WAC establishes the specific physical, chemical, radiological, and packaging criteria for acceptance of defense TRU waste shipments at WIPP. The WAC also requires that the CCP produce documents, including a certification plan, that addresses applicable requirements and criteria pertaining to packaging, characterization, certification, and shipping of defense TRU waste to WIPP for disposal.

The CCP may provide its services to a site by contracting directly with that site. If this is the case, the scope of services provided by CCP is specified in a Statement of Work (SOW) issued by the site. The SOW also specifies health and safety requirements, quality requirements, and other requirements specific to that site. A site-specific interface document may also be prepared which provides more detail on the site-CCP interface. The CCP has the option to use data from established TRU waste characterization activities at a U.S. Department of Energy (DOE)-Carlsbad Field Office (CBFO)-certified site, per site-specific interface documents. Transportation services may be provided through the CCP Certified Program or by other DOE-CBFO certified sites.

The site has general management oversight responsibility for work performed by the CCP at the site. The site is responsible for ensuring that CCP conducts its activities in compliance with site requirements, as defined in the site-specific interface document for that location.

Figure 1-1, CCP Document Hierarchy for TRU Waste Characterization, Certification, and Transportation illustrates the hierarchy of regulatory requirements for TRU waste characterization, certification, and transportation, and reflects the flow-down of requirements from higher-level documents to site-level program documents and implementing procedures. To ensure that future changes to the WAC and other relevant requirements documents are appropriately reflected, this CCP Transuranic Waste Certification Plan (hereinafter referred to as the Plan) will be reviewed at least annually and updated as necessary.

This Plan establishes the programmatic framework and criteria within which the CCP ensures that TRU wastes can be certified as compliant with the WAC. This Plan includes the following sections:

- Section 2.0, ORGANIZATION OF THE CCP, describes the interaction between the characterization, certification, and transportation personnel, and lists the responsibilities of key CCP officials.

- Section 3.0, COMPLIANCE PLAN FOR CH-WAC, describes CCP activities and specific documents that implement and verify compliance with each requirement.
- Section 4.0, WASTE ACCEPTANCE REQUIREMENTS AND CRITERIA FOR RH WASTE, describes CCP activities and specific documents that implement and verify compliance with each requirement.
- Section 5.0, QUALITY ASSURANCE PLAN, describes how the CCP complies with DOE/CBFO-94-1012, *U.S. Department of Energy Carlsbad Field Office Quality Assurance Program Document (QAPD)* (Reference 18), the WAC (Reference 47), DOE/WIPP-02-3214, *Remote-Handled TRU Waste Characterization Program Implementation Plan (WCPiP)* (Reference 17), and provides the QA Plan for transportation as required by Title 10 *Code of Federal Regulations (CFR), Energy, Part 71, Packaging and Transportation of Radioactive Material*, Subpart H, *Quality Assurance*.

This Plan and associated Quality Assurance (QA) Plan (Section 5.0), CCP-PO-001, *CCP Transuranic Waste Characterization Quality Assurance Project Plan (QAPjP)*, CCP-PO-003, *CCP Transuranic Authorized Methods for Payload Control (CCP CH-TRAMPAC)*, and CCP-PO-505, *Remote-Handled Transuranic Waste Authorized Methods for Payload Control* establish the programmatic framework for the CCP's waste characterization, certification, and transportation activities. The QA Plan (Section 5.0) within this Plan implements all of the applicable CBFO QAPD requirements. These documents are submitted to the CBFO for review and approval. CCP will not characterize, certify, or ship TRU wastes to the WIPP before CBFO approval of this Plan.

1.1 CBFO Organization and Responsibilities

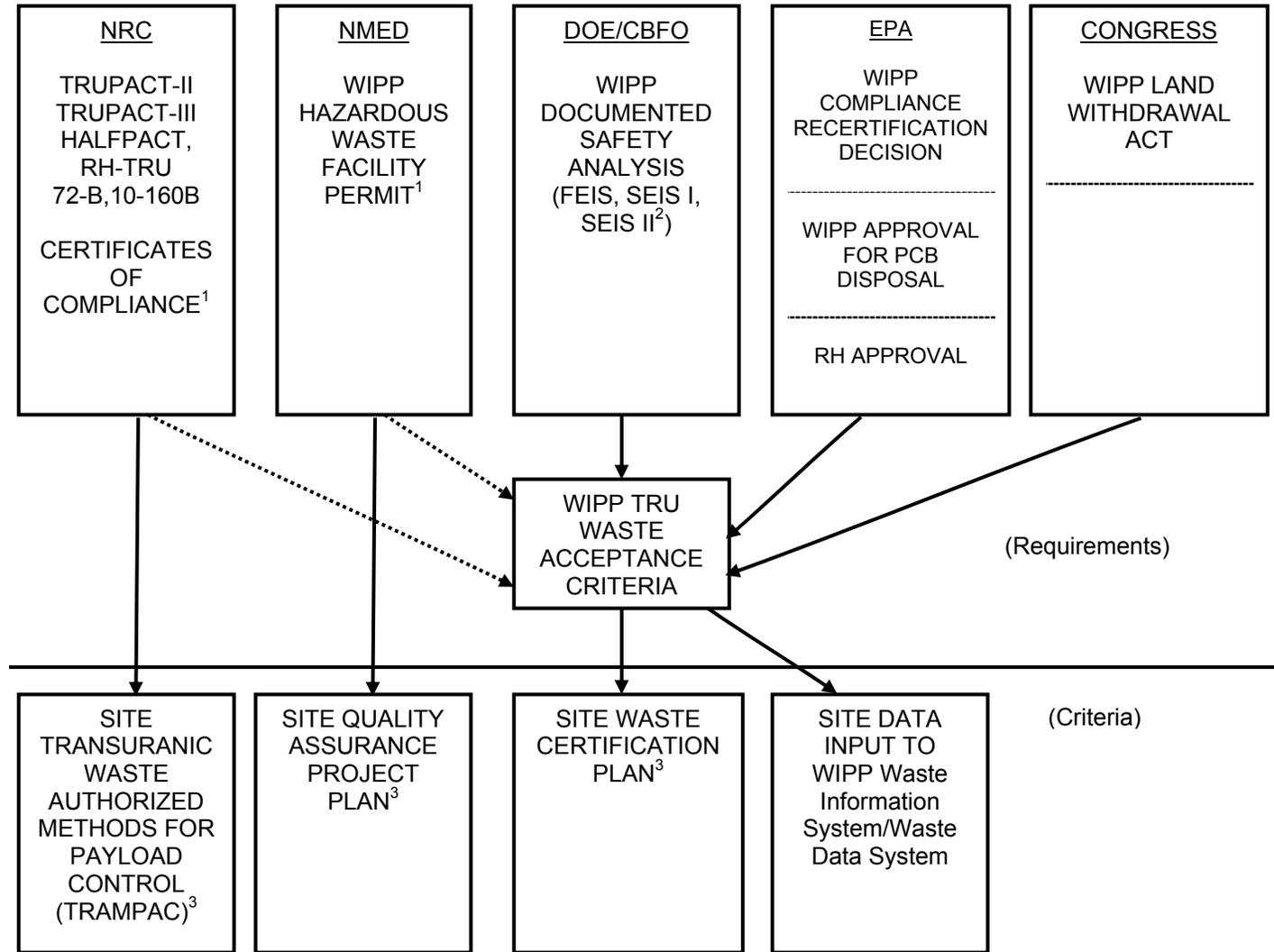
1.1.1 DOE-CBFO Office Director, Office of (Quality Assurance Manager)

- [A] The DOE-CBFO QA Manager provides independent oversight of QA activities of the CCP and approves this Plan. This will include audits and surveillances to ensure that CCP is in compliance with this Plan.

1.1.2 DOE-CBFO Office Director, Office of National TRU Program

- [A] The DOE-CBFO Office Director, Office of National TRU Program provides overall policy direction and oversees the CCP characterization and certification activities and approves this Plan.

Figure 1-1. CCP Document Hierarchy for TRU Waste Characterization, Certification, and Transportation



Note 1: The TRAMPACs as referenced by the TRUPACT-II, TRUPACT-III, HalfPACT, and RH-TRU 72-B Certificates of Compliance, the Safety Analysis Report (SAR) as referenced by the 10-160B Certificate of Compliance, and the WIPP Hazardous Waste Facility Permit (HWFP) provide detailed requirements. This Plan provides only an overview of these requirements.

Note 2: Final Environmental Impact Statement (FEIS), Supplemental Environmental Impact Statement (SEIS).

Note 3: All work performed by the site for the CBFO must be performed under an approved QA program. The site-specific Transuranic Waste Authorized Methods for Payload Control (TRAMPAC) can be a separate document or can be embodied in the site waste certification plan. The 10-160B SAR does not require the preparation of a site-specific TRAMPAC. Instead, acceptable methods for payload compliance for the 10-160B package are implemented by a Nuclear Regulatory Commission (NRC)-approved site-specific Appendix to the 10-160B SAR.

2.0 ORGANIZATION OF THE CCP

The responsibilities for TRU waste management of the CCP are distributed within various organizations. This section identifies the organizations involved in the CCP and describes the responsibilities of and interactions between these organizations.

2.1 Organization and Responsibilities

2.1.1 CCP Management

- [A] CCP management has overall responsibility for successfully accomplishing activities subject to the QAPD. Management provides the necessary planning, organization, direction, control, resources, and support to achieve their defined objectives. Management is responsible for planning, performing, assessing, and improving the work.
- [B] CCP management is responsible for establishing and implementing policies, plans, and procedures that control the quality of work, consistent with the provisions of the CBFO QAPD.
- [C] Ensuring that adequate technical and QA training is provided for personnel performing activities subject to the CBFO QAPD.
- [D] CCP management is responsible for ensuring that individual workers are knowledgeable of requirements for work they perform and are provided the necessary resources and administrative controls needed to accomplish assigned tasks.
- [E] Ensuring compliance with all applicable regulations, DOE orders and requirements, and applicable federal, state, and local laws.
- [F] Ensuring that personnel adhere to procedures for the generation, identification, control, and protection of QA records.
- [G] Exercising the authority and responsibility to STOP unsatisfactory work such that cost and schedule do not override environmental, safety, or health considerations.
- [H] Developing, implementing, and maintaining plans, policies, and procedures that implement the CBFO QAPD.
- [I] Identifying, investigating, reporting, and correcting quality problems.

- [J] Members of CCP management are responsible for achieving and maintaining quality in their area. Quality achievement is the responsibility of those performing the work. Quality achievement is verified by persons or organizations not directly responsible for performing the work.
- [K] CCP management empowers employees by delegating authority and decision making to the lowest appropriate level in the organization.
- [L] Figure 2-1, CCP Organization, is a functional organization chart pertaining to TRU waste characterization and certification activities at the CCP. The following subsections identify the organizations that oversee the CCP and describe the roles and responsibilities of key positions within the CCP charged with implementing the requirements defined in this Plan.

2.1.2 NTPC Certification Manager

- [A] The National TRU Program Certification (NTPC) Manager is responsible for the day-to-day management and direction of CCP activities. The NTPC Certification Manager is responsible for:
 - [A.1] Ensuring successful CCP/site interface.
 - [A.2] Ensuring CCP plans and operations are coordinated, integrated, and consistent with DOE-CBFO programs, policies, and guidance.
 - [A.3] Coordinating CCP activities and functioning as principal point-of-contact (POC) with DOE-CBFO and other regulating agencies.
 - [A.4] Reviewing and approving this Plan.

2.1.3 CCP Certification Manager

- [A] The CCP Certification Manager is the principal POC with DOE (including CBFO and National TRU Program [NTP]) for technical activities associated with TRU waste. The CCP Certification Manager performs the Site Project Manager (SPM) duties described in Appendix E of the CBFO QAPD. The CCP Certification Manager may delegate specific individuals within CCP to perform functions that are the responsibility of an SPM. The use of the term "SPM" in this Certification Plan refers to those delegated individuals. This delegation is documented by the completion and approval of an SPM Qualification Card in accordance with CCP-QP-002.

The CCP Certification Manager coordinates with the CCP Waste Certification Official (WCO) and Transportation Certification Official (TCO) and oversees CCP activities to ensure that TRU waste is characterized and certified compliant with WIPP requirements. Specific responsibilities assigned to the CCP Certification Manager include the following:

- [A.1] Reviewing and approving this Plan.
- [A.2] Developing, maintaining, reviewing, approving, and implementing CCP procedures and plans. Development, approval, and implementation of procedures and plans will occur at the earliest time consistent with the schedule for accomplishing the activities.
- [A.3] Scheduling revisions and distributing CCP procedures and plans and forwarding these documents (if significantly revised) to DOE-CBFO for review and approval before implementation. The term “significantly revised” means non-editorial changes in accordance with the CBFO QAPD, Section 1.4.3.
- [A.4] Ensuring CCP personnel receive appropriate training and are properly qualified, so that suitable proficiency is achieved and maintained.
- [A.5] Obtaining Acceptable Knowledge (AK) information from waste generators regarding U.S. Environmental Protection Agency (EPA) hazardous waste numbers.
- [A.6] Reviewing and approving interface documents.
- [A.7] Waste selection and tracking.
- [A.8] Halting characterization or certification activities if problems affecting the quality of certification processes or work products exist.
- [A.9] Validating and verifying characterization data.
- [A.10] Reconciling verified data with data quality objectives (DQOs).
- [A.11] Evaluating and reconciling AK information with characterization data.

[A.12] Preparing and submitting SPM Data Validation Summaries, Waste Stream Profile Forms (WSPFs), Characterization Information Summaries, Waste Stream Characterization Packages, and QA/Quality Control (QC) reports to DOE-CBFO.

[B] The CCP Certification Manager may delegate any of these activities to another individual; however, the CCP Certification Manager retains ultimate responsibility for ensuring that CCP certification requirements are met.

2.1.4 CCP Transportation Certification Official (TCO)

[A] The CCP TCO documents and certifies that payload containers and assemblies to be transported meet the requirements of CCP-PO-003. Specific responsibilities of the TCO include the following:

[A.1] Reviewing the applicable CCP transportation plans and transportation procedures.

[A.2] Interfacing with the SPM, CCP Certification Manager, WCO, and QA on matters associated with waste transportation.

[A.3] Reviewing and maintaining CCP-PO-003.

[A.4] Ensuring that data used in completion of the transportation documents are accurate and demonstrate that the waste is acceptable for transportation.

[A.5] Preparing and signing Payload Container Transportation Certification Documents (PCTCDs) and Overpack Payload Container Transportation Certification Documents (OPCTCDs).

[A.6] Preparing and signing Payload Assembly Transportation Certification Documents (PATCDs).

[A.7] Assisting QA with preparation of responses to deficiency reports in transportation matters.

[A.8] Ensuring that the transportation data entered into the WIPP Waste Information System/Waste Data System (WWIS/WDS) are accurate and demonstrate that waste is acceptable for disposal at WIPP.

[A.9] Reviewing interface documents.

[A.10] Halting transportation certification activities if problems affecting the certification or work process exist.

2.1.5 NWP Quality Assurance (QA) Manager

[A] The (NWP) Nuclear Waste Partnership QA Manager has the overall responsibility and authority to perform independent assessments to verify the organization's achievement of quality and assure the effective implementation of the QA program. The NWP QA Manager has the responsibilities and authorities described in Section 1.1.5 of WP 13-1, Nuclear Waste Partnership LLC Quality Assurance Program Description (NWP QAPD).

2.1.6 Quality Assurance (QA)

[A] QA provides QA oversight and planning for TRU waste characterization and certification, verifies the implementation of the QAPjP and the QA requirements of this Plan, and provides day-to-day guidance to CCP staff on quality-related matters. QA has the authority to STOP CCP work activities if quality is not assured or controlled. QA has no assigned responsibilities unrelated to the QA Program that would prevent appropriate attention to QA matters. QA is responsible for verifying the achievement of quality by those performing the work. As shown in the organization chart in Figure 2-1, the Assurance Programs Manager reports to the NWP QA Manager, so that required authority and organizational freedom are provided, including sufficient independence from cost and schedule considerations. The Assurance Programs Manager performs the duties and has the responsibilities and authorities described for the site project QA manager in Appendix E of the CBFO QAPD. QA specific responsibilities include the following:

[A.1] Reviewing and approving CCP procedures and plans including this Plan.

[A.2] Coordinating and participating in internal and external audits and assessments to verify compliance.

[A.3] Tracking compliance and evaluating trends in compliance with QA objectives (QAOs).

[A.4] Performing assessments of testing facilities.

[A.5] Tracking and trending CCP nonconformances and corrective action reports (CARs).

- [A.6] Verifying CCP corrective actions.
- [A.7] Submitting semi-annual and other QA/QC reports to the CCP Certification Manager and DOE-CBFO.
- [A.8] Participating in the development of responses to Corrective Action Reports generated by DOE-CBFO or other external assessment organizations.
- [A.9] Reviewing and approving supplier and subcontractor QA Plans.
- [A.10] Reviewing interface documents.
- [A.11] Providing guidance to all CCP organizations concerning identification, control, and protection of QA records.
- [A.12] STOPPING work if quality is not ensured or controlled.
- [A.13] Providing day-to-day guidance on quality-related matters to CCP staff.
- [A.14] Maintaining liaison with participant QA organizations and other affected organizations.
- [A.15] Developing, establishing, and interpreting QA policy and ensuring effective implementation.
- [A.16] Interfacing, as appropriate, with the DOE-CBFO staff, participants, and other stakeholders on QA matters.
- [A.17] Assisting CCP organizations with quality planning, documentation, quality measurement, and problem identification and resolution.
- [A.18] Initiating, recommending, or providing solutions to quality problems through designated channels.
- [A.19] Ensuring that further processing, delivery, installation, or use is controlled until proper disposition of a nonconformance, deficiency, or unsatisfactory condition has occurred.
- [A.20] Coordinating with responsible management on resolution of differences of opinion involving the definition and implementation of QA Program requirements. If not resolved, progressively elevating

the issues to successively higher levels of management as necessary.

[A.21] Ensuring that a graded approach is used to exercise control over activities affecting quality to an extent consistent with their importance.

[A.22] Interfacing with the CCP WCO and TCO on matters related to waste certification and transportation.

[A.23] Providing inspection services for procurement, including source inspections

[A.24] Providing vendor qualification and maintenance of the NWP Qualified Suppliers List (QSL) for vendors used by the CCP.

[B] QA may delegate one or more individuals to perform the above functional responsibilities; however, QA retains ultimate responsibility for ensuring compliance with QA requirements.

2.1.7 CCP Waste Certification Official (WCO)

[A] The CCP WCO is responsible for reviewing data and information necessary to document TRU waste payload containers prepared for shipment to WIPP meet specified criteria. The WCO coordinates activities related to waste certification. Specific duties and responsibilities of the WCO include the following:

[A.1] Certifying that waste packages meet WAC requirements.

[A.2] Interfacing with the CCP Certification Manager, SPM, TCO, and QA on matters related to waste certification.

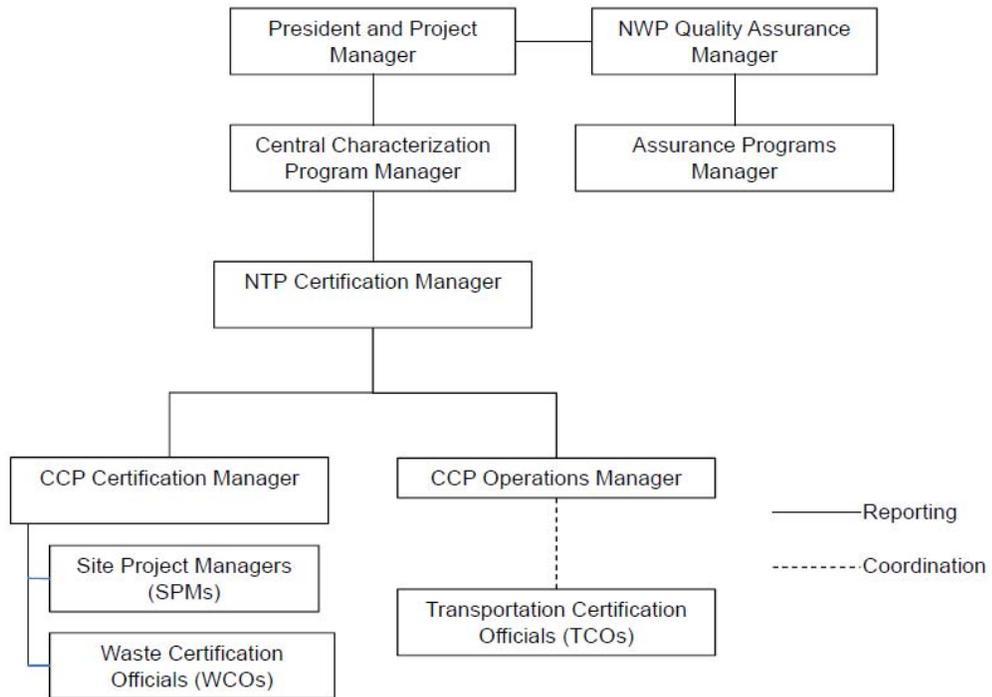
[A.3] Stopping waste certification activities if problems affecting the quality of certification processes or work products exist.

[A.4] Ensuring that certification data entered into the WIPP WWIS/WDS are accurate and demonstrate the acceptability of the waste for transport to and disposal at the WIPP.

[A.5] Reviewing the applicable CCP plans and procedures and any other waste certification-related documents.

- [A.6] Reviewing this Plan.
- [A.7] Preparing responses to deficiency reports.
- [B] The WCO may delegate one or more individuals to perform the above responsibilities; however, the WCO retains ultimate responsibility for ensuring compliance with WAC requirements.

Figure 2-1. CCP Organization



3.0 COMPLIANCE PLAN FOR CH-WAC

This section describes how the CCP complies with the requirements of the WIPP WAC and associated requirements contained in the WIPP Documented Safety Analysis (DSA) (Reference 4), the Transuranic Package Transporter II (TRUPACT-II), Transuranic Package Transporter III (TRUPACT-III), and/or HalfPACT Certificates of Compliance (References 5 and 6), the WIPP Land Withdrawal Act (LWA) (Reference 2) the WIPP HWFP (Reference 9), the Compliance Recertification Decision (Reference 10), the Initial Report for Polychlorinated Biphenyl (PCB) Disposal Authorization (Reference 11), the EPA letter of approval to land dispose non-liquid PCBs at WIPP (References 12 and 13), and the Revision to the Record of Decision for the DOE's WIPP Disposal Phase and associated WIPP National Environmental Policy Act (NEPA) database (References 14 and 15).

3.1 Organization of Requirements

WAC requirements are organized under five major categories: container properties, radiological properties, physical properties, chemical properties, and data package contents. Sections 3.2 through 3.6 correlate with the organization in the WAC for Contact-Handled (CH) TRU waste requirements and identify methods of compliance to meet each requirement. Procedures that implement the process controls, techniques, tests, and other actions to be applied to each TRU payload container, waste stream, and shipment are also identified. Revisions of requirements in referenced documents controlled by agencies or organizations other than DOE (e.g., EPA, NMED, and NRC) shall have precedence over values quoted in this Plan. Changes incorporated in future revisions of the CH-WAC will be reflected in future revisions of this Plan.

Regarding any discussions of compliance and verification methods, if a requirement is not met, personnel will initiate a Nonconformance Report (NCR) or a CAR in accordance with CCP-QP-005, *CCP TRU Nonconforming Item Reporting and Control*. Corrective action will be taken in accordance with CCP-QP-029, *CCP Corrective Action Management*, to resolve nonconformances. Section 5.3 of this Plan provides additional details about the NCR/CAR process. Only waste from a properly characterized waste stream will be certified as meeting the requirements and associated criteria contained in this Plan. Waste containers for a waste stream that has not been represented by an approved WSPF will not be shipped to WIPP for disposal (Reference 9, Part 2, Section 2.3.3.10). The required characterization, certification, and shipment data will be transmitted to WIPP using the WWIS/WDS.

3.1.1 DOE Operations and Safety Requirements for WIPP

- [A] The WIPP DSA (Reference 4) addresses TRU waste handling and emplacement operations. The waste acceptance for emplacement in the WIPP will conform to the WAC.

3.1.2 NRC Transportation Safety Requirements for Type B Packages

- [A] Acceptable methods for payload compliance control are defined in the TRUPACT-II, TRUPACT-III and HalfPACT Certificates of Compliance and implemented by the CH-TRAMPAC (References 23a and 23b). For shipments to WIPP, the CCP has prepared a CCP CH-TRAMPAC (CCP-PO-003) and a CCP TRUPACT-III TRAMPAC (CCP-PO-050 *CCP Trupact-III TRU Waste Authorized Methods For Payload Control [CCP TRUPACT-III TRAMPAC]*) describing compliance with each payload parameter. The CCP CH-TRAMPAC and CCP TRUPACT-III TRAMPAC will contain sufficient detail to allow reviewers to adequately understand and evaluate the compliance methodology for each payload parameter.
- [B] The QA Program in Section 5.0 of this Plan defines the QA activities that apply to the use of NRC-approved transportation packaging in accordance with Title 10 CFR Part 71, Subpart H (Reference 24).

3.1.3 NMED Hazardous Waste Facility Permit Requirements

- [A] TRU waste is classified as TRU mixed waste if it contains hazardous constituents regulated under the New Mexico Hazardous Waste Act (Reference 25). Only TRU mixed waste and TRU waste that have been characterized in accordance with WIPP Waste Analysis Plan (WIPP WAP) and that meet the treatment, storage, and disposal facility waste acceptance criteria as presented in permit Sections 2.3.3.1 through 2.3.3.10 will be shipped to WIPP for disposal. The CCP QAPjP describes compliance with the WIPP WAP.

3.1.4 EPA Compliance Recertification Decision Requirements

- [A] Title 40 CFR §194.24(c) (Reference 26) requires the DOE to specify the limiting values for waste components to be emplaced in the repository. The EPA's Recertification Decision specifies waste components (including free water,

metals, and cellulose, plastic, and rubber) and their limits that are associated with the waste proposed for disposal at WIPP.

- [B] CCP estimates or determines the weight of cellulose, plastics, and rubber, and reports this estimate in the WWIS/WDS on a container basis. In addition, CCP quantifies and reports the activity values of each of the following radionuclides for purposes of tracking the inventory curie content: ^{241}Am , ^{238}Pu , ^{239}Pu , ^{240}Pu , ^{242}Pu , ^{233}U , ^{234}U , ^{238}U , ^{90}Sr , and ^{137}Cs . The presence or absence of these radionuclides is determined using AK documentation and radioassay in accordance with Appendix A of the WAC. The results of these determinations are reported in the WWIS/WDS on a payload container basis. TRU waste payload containers shall contain more than 100 nanocuries per gram (nCi/g) of waste of alpha-emitting TRU isotopes with half-lives greater than 20 years, as specified in Section 3.3.3.

3.1.5 EPA Approval for PCB Disposal

PCB contaminated TRU and PCB contaminated TRU waste mixed with a hazardous waste including PCB remediation waste, PCB Articles, and PCB bulk product waste may be stored and disposed at the WIPP (References 11, 12, 13, 14, and 15). Waste streams identified as containing PCBs shall be brought to the attention of the CBFO in order that a determination can be made regarding their acceptability at WIPP. Applicable waste acceptance criteria are addressed in Sections 3.2.5, 3.4.1, and 3.5.6.

3.1.6 Land Withdrawal Act Requirements (Public Law 102-579)

- [A] WIPP can only accept radioactive waste generated by atomic energy defense activities of the United States (Reference 1). A TRU waste is eligible for disposal at the WIPP if it has been generated in whole or in part by one or more of the following functions (References 27 and 28):
- Naval reactors development
 - Weapons activities, including defense inertial confinement fusion
 - Verification and control technology

- Defense nuclear materials production
- Defense nuclear waste and materials by-products management
- Defense nuclear materials security and safeguards and security investigations
- Defense research and development

Using AK, CCP determines that each waste stream to be disposed at WIPP is “defense” TRU waste.

[B] High-level radioactive waste or spent nuclear fuel shall neither be transported, emplaced, nor disposed of at the WIPP. Also, no TRU waste may be transported by or for the DOE to or from the WIPP, except in Type B packages:

- the design of which has been certified by the NRC, **AND**
- that have been determined by the NRC to satisfy its QA requirements.

3.2 Container Properties Criteria and Requirements

3.2.1 Payload Container Description

[A] Requirements

[A.1] Each payload container shall be assigned to a payload shipping category (References 23a and 23b). Authorized payload containers are listed in Table 1, Authorized Payload Container Contents. Payload containers shall meet U.S. Department of Transportation (DOT) Specification 7A, Type A, packaging requirements delineated in 49 CFR 173.465 (Reference 4, Section 2.6.2; Reference 9, Attachment A1, Section A1-1b, Reference 12, Section VI.F). Payload containers must be made of steel and be in good and unimpaired condition prior to shipment from the generator/storage sites. To demonstrate compliance with the requirement that payload containers be in good and unimpaired condition, the exterior of all payload containers shall undergo 100 percent visual inspection prior to loading into a Type B package. The results of this visual inspection

shall be documented using Appendix 7, Payload Container Integrity Checklist, of this Plan. A payload container in good and unimpaired condition, 1) does not have significant rusting, 2) is of sound structural integrity, and, 3) does not show signs of leakage. Significant rusting is a readily observable loss of metal due to oxidation (e.g., flaking, bubbling, or pitting) that causes degradation of the payload container's structural integrity. Rusting that causes discoloration of the payload container surface or consists of minor flaking is not considered significant. A payload container is not of sound structural integrity if it has breaches or significant denting/deformation. Breaching is defined as a penetration in the payload container that exposes the internals of the container. Significant denting/deformation is defined as damage to the payload container that results in creasing, cracking, or gouging of the metal, or damage that affects payload container closure. Dents or deformations that do not result in creasing, cracking, or gouging or affect payload container closure are not considered significant. CCP will report to the WWIS/WDS the number and types of payload containers planned for shipment to the WIPP.

[B] Compliance and Verification

[B.1] The CCP procures payload containers (e.g., drums, Standard Waste Box [SWBs], Standard Large Box2 [SLB2] and Ten-Drum Overpack [TDOPs]) that meet the following requirements:

- (a) SWBs, SLB2s, and TDOPs are procured to the same standards and specifications as the containers used in Type A testing.
- (b) New 55-gallon drums are procured as UN1A2 reusable drums, in accordance with applicable requirements of 49 CFR 173, which is allowable per CBFO memo CBFO:NTP:JFS97-1144UFC5822. Drums may also be procured to the same standards and specifications as the drums used in Type A testing.

[B.2] Recovered drums are inspected to ensure that they are DOT Specification 17C or 17H or meet

UN1A2 requirements for reusable drums. Permanent markings embossed on the bottom of the drums are used to verify the drum type if procurement records are not available. Alternatively, if the markings are not visible (e.g., drums that are galvanized through a dipping process, which obscures the embossing), the drums are inspected and inspection results are compared to requirements for 17C, 17H, or UN1A2 drums. Personnel examine retrievably stored containers for compliance with the applicable requirements and verify that the containers are in good condition in accordance with site-specific container management procedures (See Appendix 4, Procedure Tables, Table B-1), and CCP-TP-033, *CCP Shipping of CH-TRU Waste*. CCP-TP-033 contains Appendix D from the WAC, and is used to document compliance with the Payload Container Integrity Checklists.

[B.3] Personnel document their procurement acceptance and/or visual inspections. If packages cannot be shown to meet the above requirements by procurement records and/or physical examination, CCP personnel take corrective action (e.g., repackage the waste into a certifiable container) to resolve the nonconformance.

[B.4] Personnel will report the number and types of containers to WIPP using WWIS/WDS, in accordance with CCP-TP-030, *CCP CH-TRU Waste Certification and WWIS/WDS Data Entry*.

Table 1. Authorized Payload Container Contents

Payload Container	Contents
55-gallon drum	Either direct loaded or containing a pipe component (commonly referred to as a pipe overpack container [POC])
85-gallon drum ¹	Either direct loaded or containing a 55-gallon drum
100-gallon drum	Direct loaded
Shielded container	Containing a 30-gallon steel drum
SWB	Either direct loaded or containing up to four 55-gallon drums, up to three 85-gallon drums, up to two 100-gallon drums, or one bin
SLB2	Direct loaded or containing various individual containers (4 x 4 x 7-foot boxes and 5 x 5 x 8-foot boxes as well as other containers of smaller sizes)
TDOP	Either direct loaded or containing up to ten 55-gallon drums or up to six 85-gallon drums or one SWB

¹The term "85-gallon drum" includes 75-gallon to 88-gallon drums.

3.2.2 Container Weight and Center-of-Gravity

[A] Requirements

[A.1] See the CH-TRAMPAC for weight limits and center-of-gravity requirements (Reference 23a). See the TRUPACT-III TRAMPAC for applicable weight limits (Reference 23b).

3.2.3 Assembly Configurations

[A] Requirements

[A.1] See the CCP CH-TRAMPAC and TRUPACT-III TRAMPAC for payload assembly configuration requirements (References 23a and 23b).

3.2.4 Removable Surface Contamination (Payload Containers)

[A] Requirements

[A.1] The removable surface contamination for each CH-TRU waste payload container, payload assembly and packaging must be measured and documented prior to shipment. Removable surface contamination

on CH-TRU waste payload containers, container assemblies, and packaging shall not be greater than 20 disintegrations per minute (dpm) per 100 square centimeters (cm²) for alpha-emitting radionuclides and 200 dpm per 100 cm² for beta-gamma-emitting radionuclides (Reference 9, Attachment A1, Section A1-1d[2]; References 29 and 30).

[A.2] Fixing surface contamination to meet the above criterion is not permitted.

[B] Compliance and Verification

[B.1] A Host site Radiological Control Technician (RCT) surveys TRU waste payload containers, payload assemblies and packaging, for removable surface contamination before they are loaded for shipment. The RCT assesses removable contamination and documents the results in accordance with Host site radiological survey procedures. If the RCT determines that removable contamination exceeds 20 dpm per 100 cm² for alpha-emitting radionuclides or 200 dpm per 100 cm² for beta-gamma-emitting radionuclides, personnel determine whether surface contamination can be removed to meet established limits. If compliance with removable surface contamination limits cannot be achieved, personnel segregate and disposition noncompliant container(s) in accordance with CCP-QP-005. The survey results are added to the container data package. The WCO confirms removable surface contamination survey results in accordance with Host site radiological survey procedures. CCP-TP-033 is utilized to comply with requirements of this section.

3.2.5 Container Identification/Labeling

[A] Requirements

[A.1] Each CH-TRU waste payload container shall be uniquely identified by means of bar code labels permanently attached in conspicuous locations. (Reference 23a, Section 2.4; Reference 23b, Section 2.3). The unique payload container identification number shall include a site identifier as a prefix (References 23a and 23b, Section 6.2.1).

- [A.2] The container identification number shall be in medium to low density Code 39 bar code symbology as required by American National Standards Institute (ANSI) Standard ANSI/Association for Automatic Identification and Mobility (AIM) BC1-1995 (Reference 31) in characters at least 1-in. high, and alphanumeric characters at least 0.5-in. [inch] high. In the case of a 55-gallon, 85-gallon, or 100-gallon drum, or a shielded container, a minimum of three bar code identification labels shall be placed at approximately equal intervals around the circumference of the drum or shielded container (e.g., 120 degrees for three labels, 90 degrees for four labels) so that at least one label is clearly visible when drums or shielded containers are assembled into a payload assembly (e.g., a label must be visible after slip sheets and wrapping are applied). The bar code labels are required on the flat sides of SWBs. For TDOPs and SLB2s, a minimum of one bar code is required.
- [A.3] Payload containers shall be marked "Caution Radioactive Material" using a yellow and magenta label as specified in 10 CFR Part 835 (Reference 30).
- [A.4] Payload containers whose content are also Resource Conservation and Recovery Act (RCRA) regulated (mixed-TRU) shall be additionally marked "Hazardous Waste" as specified in 40 CFR §262.32 (Reference 33).
- [A.5] For TRU and mixed-TRU wastes containing PCBs, the payload containers shall be marked in accordance with 40 CFR §761.40 (Reference 13).
- [A.6] Additionally, DOT Type B packages (i.e., the TRUPACT-II, TRUPACT-III and HalfPACT) containing PCBs must be properly marked in accordance with the EPA letter of approval and 40 CFR §761.40 (References 12 and 13).
- [A.7] If an empty drum or shielded container is used as dunnage to complete a shipment to the WIPP, the drum shall be labeled with a unique payload identification number and "EMPTY" or "DUNNAGE."

[A.8] If a seven-pack of 55-gallon drums, a four-pack of 85-gallon drums, a three-pack of 100-gallon drums, or a SWB is shipped as dunnage to fill a TRUPACT-II, the drums or SWB will be labeled as "EMPTY" or "DUNNAGE" but will not be labeled with the unique site-specific payload container identification numbers (CINs) or included in WWIS/WDS data.

[B] Compliance and Verification

[B.1] Fifty-five gallon, 85-gallon, 100-gallon drums or shielded container certified will have a minimum of three bar code labels equally spaced around the drum that identify the site and contain a unique identification number in accordance with the Host site-specific container management procedure(s). Bar code labels will be affixed on the flat side of SWBs, while on a TDOP, a minimum of one bar code will be affixed.

[B.2] After verifying payload parameters, personnel ensure each container is marked with the appropriate site and container identification number in accordance with the host site-specific container management procedures. The TCO verifies the container marking (e.g., barcode, Radiation Material, PCB, or Hazardous Waste labels) in accordance with CCP-TP-033.

[B.3] Refer to Section 3.2.6[B] of this Plan for compliance with the dunnage requirements and verifications.

3.2.6 Dunnage

[A] Requirements

[A.1] See the CCP CH-TRAMPAC for dunnage requirements (Reference 23a).

[A.2] The use of dunnage shall be minimized.

[A.3] In the event the use of dunnage cannot be avoided, the preferred practice for maximizing the efficiency of waste handling and the utilization of disposal room capacity is to ship them in assemblies (e.g., a seven-pack assembly of 55-gallon drums).

[B] Compliance and Verification

- [B.1] The minimization of the use of dunnage is through load management. The use of dunnage drums is reviewed and approved concurrently with the review and approval of shipment assemblies by the WWIS/WDS Data Administrator on a case-by-case basis.

3.2.7 Filter Vents

[A] Requirements

- [A.1] Payload containers that have been stored in an unvented condition (i.e., no filters and/or unpunctured liner) shall be aspirated for a specific length of time as described in the CH-TRAMPAC to ensure equilibration of any gases that may have accumulated in the closed payload container (References 23a and 23b, Section 5.3.1). All payload containers (including overpacks, but not dunnage containers) shall be vented with one or more filters to control gas concentration and pressure (Reference 4, Section 2.6.2; Reference 47, Reference 23a, Section 2.5.1; Reference 23b, Section 2.4.1; Reference 9, Attachment A1, Section A1-1b[2]). Filters shall meet the specifications described in the WIPP Hazardous Waste Facility Permit and the CH-TRAMPAC, and TRUPACT-III TRAMPAC (Reference 9, Attachment A1, Section A1-1d [1]; Reference 23a, Section 2.5.1; Reference 23b, Section 2.4.1). The model number of each filter vent or combination of filter vents will be reported using the WWIS/WDS.

[B] Compliance and Verification

- [B.1] Personnel will procure approved filters for use on TRU waste containers. Filters will be selected from the DOE-CBFO-approved filter list. Filters will be procured in accordance with CCP-QP-015, *CCP Procurement*.
- [B.2] The personnel visually verify that filter vents, if present, have been installed properly. If filter vents are not installed, personnel procure filter vents that meet specifications and install the correct number of

filter vents. The WCO confirms payload venting in accordance with CCP-TP-030. When a payload container does not meet the payload container filter requirements, an NCR is initiated. Nonconforming filters are replaced as necessary.

3.3 Radiological Properties

3.3.1 Radionuclide Composition

[A] Requirements

[A.1] The radionuclide composition of each waste container being characterized must be quantified and reported for purposes of tracking the inventory curie content. The activities and masses of the following radionuclides must be reported: ^{241}Am , ^{238}Pu , ^{239}Pu , ^{240}Pu , ^{242}Pu , ^{233}U , ^{234}U , ^{238}U , ^{90}Sr , and ^{137}Cs . The estimated activities and masses, including their associated total measurement uncertainties (TMU) expressed in terms of one standard deviation for these ten radionuclides shall be reported to the WWIS/WDS on a payload container basis. For any of these ten radionuclides whose presence can be substantiated from AK, direct measurement, computations, or a combination thereof, and whose measured data are determined to be below the lower limit of detection (LLD) for that radionuclide, the site shall report the character string "< LLD" to the WWIS/WDS for the activity and mass of that radionuclide; otherwise a value of zero shall be reported. Quantitative estimates for LLD shall not be used when calculating related radiological properties of the waste such as TRU alpha activity concentration, ^{239}Pu Fissile Gram Equivalent (FGE), decay heat, etc.

[A.2] In addition, all radionuclides other than the ten WIPP-tracked radionuclides (i.e., ^{241}Am , ^{238}Pu , ^{239}Pu , ^{240}Pu , ^{242}Pu , ^{233}U , ^{234}U , ^{238}U , ^{90}Sr , and ^{137}Cs) that contribute to 95 percent of the radioactive hazard for the payload container shall be reported on the bill of lading or manifest in accordance with Title 49 CFR, *Transportation* §172.203, (Reference 36) and Title 49 CFR §173.433, (Reference 37). The activities and masses of these other radioisotopes shall also be reported to the WWIS/WDS along with their

associated TMU, expressed in terms of one standard deviation for each waste container.

[B] Compliance and Verification

- [B.1] CCP uses AK and measurements to determine radionuclide composition. The requirements for nondestructive assay (NDA) are presented in Appendix 1, Radioassay Requirements for Contact-Handled Transuranic Waste. NDA personnel quantify radionuclide values in accordance with the applicable procedures listed in Appendix 1, Table A-2.1, NDA Procedures. NDA personnel use AK data and assay measurements and calculations to create an isotopic profile of each waste container. The activities and masses of the ten WIPP-tracked radionuclides including TMU (one standard deviation) and all radionuclides other than the ten WIPP-tracked radionuclides including TMU (one standard deviation) that contribute to 95 percent of the radioactive hazard for the payload container being characterized will be reported for each container using WWIS/WDS in accordance with procedure CCP-TP-030. In addition, all radionuclides other than the ten WIPP-tracked radionuclides that contribute to 95 percent of the radioactive hazard for the payload container shall be reported on the bill of lading or manifest in accordance procedure CCP-TP-033.
- [B.2] For any of the ten WIPP-tracked radionuclides whose presence can be substantiated from AK, direct measurement, or a combination thereof, and whose measured data are determined to be below the LLD for that radionuclide, the CCP will report the character string "< LLD" to the WWIS/WDS for the activity and mass of that radionuclide; otherwise a value of zero will be reported.

3.3.2 Fissile Material Quantity (^{239}Pu FGEs)

[A] Requirements

- [A.1] For each payload container, the sum of ^{239}Pu FGE plus two times its associated TMU, expressed in terms of one standard deviation, shall comply with the limits in Table 2, ^{239}Pu FGE Limits for Payload Containers (Reference 4, Section 6.4.2 References 23a and 23b, Section 3.1.1). The values calculated for ^{239}Pu FGE and its associated TMU, expressed in terms of one standard deviation, shall be reported to the WWIS/WDS for each payload container.
- [A.2] See the CCP CH-TRAMPAC for ^{239}Pu FGE limits applicable to the TRUPACT-II and/or HalfPACT packaging (Reference 23a).
- [A.3] See the CCP CH-TRUPACT-III TRAMPAC for ^{239}Pu FGE limits applicable to the TRUPACT-III packaging (Reference 23b).

Table 2. ²³⁹Pu FGE Limits for Payload Containers

Waste Container Type	Be/BeO Limits	Special Waste Container Geometry/Material Requirements	²³⁹ Pu FGE Limit
Non-Machine Compacted Waste			
55- (excluding pipe overpacks), 85-, and 100-gallon drums	≤ 1% by weight of the waste	None	≤ 200
55-gallon drum configured as a pipe overpack (i.e., a standard, S100, S200, or S300 pipe overpack)	≤ 1% by weight of the waste	None	≤ 200
Shielded Container	≤ 1% by weight of the waste	None	≤ 200
SLB2	≤ 1% by weight of the waste	The minimum ²⁴⁰ Pu content in grams for the SLB2 waste container, denoted in the adjacent ²³⁹ Pu FGE Limit column as a parenthetical, shall be determined after the subtraction of two times the error (i.e., two standard deviations)	≤ 325 ≤ 340 (5) ≤ 360 (15) ≤ 380 (25)
SWB	≤ 1% by weight of the waste	None	≤ 325
TDOP	≤ 1% by weight of the waste	None	≤ 325
55- (excluding pipe overpacks), 85-, and 100-gallon drums	>1% by weight of the waste up to 100 kg	None	≤ 100
SWB	>1% by weight of the waste	None	≤ 100
TDOP	>1% by weight of the waste	None	≤ 100

Table 2. ²³⁹Pu FGE Limits for Payload Containers (Continued)

Waste Container Type	Be/BeO Limits	Special Waste Container Geometry/Material Requirements	²³⁹ Pu FGE Limit
Machine Compacted Waste			
Pipe overpacks (i.e., a standard, S100, S200, or S300 pipe overpack)	> 1% by weight of the waste	None	≤ 140
55- (excluding pipe overpacks), 85-, and 100-gallon drums	≤ 1% by weight of the waste	Partially compacted waste. Applies to waste that has been compacted such that the distribution and form of polyethylene in the waste does not exceed 0.646 gram/cubic centimeter (g/cm ³), i.e., 70% of the theoretical full density of polyethylene (0.923 g/cm ³).	≤ 200
55- (excluding pipe overpacks), 85-, and 100-gallon drums	≤ 1% by weight of the waste	Fully compacted waste without design vertical spacing. Applies to waste that has been compacted such that the distribution and form of polyethylene in the waste exceeds 0.646 g/cm ³ , i.e., 70% of the theoretical full density of polyethylene (0.923 g/cm ³).	≤ 170
55- (excluding pipe overpacks), 85-, and 100-gallon drums	≤ 1% by weight of the waste	Fully compacted waste with design vertical spacing. Applies to waste that has been compacted such that the distribution and form of polyethylene in the waste exceeds 0.646 g/cm ³ , i.e., 70% of the theoretical full density of polyethylene (0.923 g/cm ³), and the dimensions of the payload containers (e.g., 100-gallon drums) ensure a minimum 0.5-in. separation between their compacted waste contents and other axially adjacent payload containers.	≤ 200
Shielded Container	≤ 1% by weight of the waste	None	≤ 200

Table 2. ²³⁹Pu FGE Limits for Payload Containers (Continued)

Waste Container Type	Be/BeO Limits	Special Waste Container Geometry/Material Requirements	Waste Container
Machine Compacted Waste			
SWB/TDOP	≤ 1% by weight of the waste	Fully compacted waste with design vertical spacing. Applies to waste that has been compacted such that the distribution and form of polyethylene in the waste exceeds 0.646 g/cm ³ , i.e., 70% of the theoretical full density of polyethylene (0.923 g/cm ³), and contains one 16-gauge steel 100-gallon drum having a top and bottom design spacing of 0.75 and 0.50-inches, respectively, with no loose material or other drums of waste in the SWB/TDOP.	≤ 250
SWB/TDOP	≤ 1% by weight of the waste	Fully compacted waste with design vertical spacing. Containing one 55-, 85-, or 100-gallon drum whose design ensures a minimum of 0.5-in. vertical spacing between drum contents and the exterior top and bottom of the drum (e.g., a recessed lid) with no loose material or other drums of waste in the SWB/TDOP.	≤ 200
SWB/TDOP	≤ 1% by weight of the waste	Partially compacted waste. Containing one 55-, 85-, or 100-gallon drum whose contents have been compacted such that the distribution and form of polyethylene in the waste does not exceed 0.646 g/cm ³ , i.e., 70% of the theoretical full density of polyethylene (0.923 g/cm ³) with no loose material or other drums of waste in the SWB/TDOP.	≤ 200
SWB/TDOP	≤ 1% by weight of the waste	Fully compacted waste with design vertical spacing. Applies to waste that has been compacted such that the distribution and form of polyethylene in the waste exceeds 0.646 g/cm ³ , i.e., 70% of the theoretical full density of polyethylene (0.923 g/cm ³).	≤ 185

[B] Compliance and Verification

[B.1] Personnel obtain the CH-TRU waste fissile content in accordance with the processes described in Appendix 1, Radioassay equipment is qualified under the corresponding Performance Demonstration Program (PDP) requirements. CCP calculates the fissile or fissionable radionuclide content of the CH-TRU waste container as ²³⁹Pu FGE according to approved calculation methods in accordance with CCP-TP-033.

[B.2] Personnel compile and review AK to make initial determinations about radionuclide content and concentrations. CCP confirms AK by obtaining information on the isotopic composition of the waste through radioassay of the filled payload container.

- [B.3] Personnel compute the container ^{239}Pu FGE and container ^{239}Pu FGE TMU manually or using a computational algorithm. Individual radionuclide mass quantities and TMUs are converted to ^{239}Pu FGE by multiplying the mass value (g) by ^{239}Pu FGE conversion factors (FGE/g) listed in Table 3.1.2 of the CH-TRAMPAC (Reference 23a) and Table 3.1-1 of the TRUPACT-III TRAMPAC (Reference 23b). The ^{239}Pu FGE of each payload container shall be calculated from the isotopic composition and quantity of radionuclides. The ^{239}Pu FGE value plus two times the measurement error shall be less than the applicable limit for each payload container.
- [B.4] The total ^{239}Pu FGE error is the square root of the sum of the squares of the individual ^{239}Pu FGE TMUs. Two times this error shall be added to the ^{239}Pu FGE of the Type B package payload and compared to the limit. The ^{239}Pu FGE of the radionuclides in each payload container will be reported to the WIPP using the WWIS/WDS and the TRUPACT-II and TRUPACT-III payload total FGE will be recorded on the PATCD. Payload containers shipped to the WIPP will meet both the Type B package and the WIPP repository requirements for criticality.

3.3.3 TRU Alpha Activity Concentration

[A] Requirements

- [A.1] TRU waste containers to be disposed of at the WIPP shall contain greater than 100 nCi/g of waste of alpha-emitting TRU isotopes, with half-lives greater than 20 years. Without taking into consideration the TMU, the TRU alpha activity concentration for a payload container is determined by dividing the TRU alpha activity of the waste by the weight of the waste. The weight of the waste is the weight of the material placed into the payload container (i.e., the net weight of the container). The weight of the waste is typically determined by subtracting the tare weight of the payload container (including the weight of the rigid liner and any shielding external from the waste, if applicable) from the gross weight of the payload container. In the event waste containers (e.g., 55-gallon, 85-gallon or 100-gallon drums) that have been radioassayed are overpacked in a payload container (e.g., in a SWB), CCP shall sum the

individual TRU alpha activity values of the individual waste containers and divide by the sum of the individual net waste weights (i.e., less container, shielding, and liner weights as appropriate) to determine the activity per gram for the payload container. Should CCP utilize load management by overpacking waste containers, the determination of the payload container's TRU alpha activity concentration shall be in accordance with Appendix 8, Payload Management of TRU Alpha Activity Concentration. Loading a 55-gallon pipe-overpack with cans is considered direct loading, not overpacking for the purposes of calculating the weight of the container. The TRU alpha activity concentration shall be reported to the WWIS/WDS; however, there are no reporting requirements for its associated TMU (Reference 35, Chapter 4).

[B] Compliance and Verification

[B.1] Personnel measure TRU alpha activity concentration in accordance with the NDA processes described in Appendix 1. Personnel calculate the TRU alpha activity concentration of the CH TRU waste container manually or using computational algorithms. Personnel will subtract the tare weight of the containers before calculating the TRU alpha activity concentration. Personnel validate and verify calculation programs, before the data are used in accordance with CCP-QP-022, *CCP Software Quality Assurance Plan*. Assay data are validated and verified, and submitted in batch data reports (BDRs) to the CCP Project Office. The WCO confirms the reported TRU alpha activity concentration is appropriately calculated and above the specified limit.

3.3.4 ²³⁹Pu Equivalent Activity

[A] Requirements

[A.1] ²³⁹Pu equivalent curie (PE-Ci) limits are shown in Table 3, PE-Ci Limits. PE-Ci quantities shall be calculated in accordance with Appendix 5 for each payload container and reported to the WIPP using the WWIS/WDS (Reference 4, Section 3.3.2.3.1 and Table 3.3-6). There are no reporting requirements for the associated TMU.

Table 3. PE-Ci Limits

Payload Container	Packing Configuration	PE-Ci Limit
55-, 85-, and 100-gallon drum	Direct loaded – all approved waste forms other than solidified/vitrified waste	≤ 80 PE-Ci
Shielded Container	Direct loaded – vented 30-gallon inner steel drum – all approved waste forms other than solidified/vitrified waste	≤ 80 PE-Ci
SLB2	Direct loaded – all approved waste forms other than solidified/vitrified waste	≤ 560 PE-Ci
SWB	Direct loaded (or a bin) – all approved waste forms other than solidified/vitrified waste	≤ 560 PE-Ci
TDOP	Direct loaded – all approved waste forms other than solidified/vitrified waste	≤ 800 PE-Ci
85-gallon drum	Overpacking an undamaged ¹ 55-gallon drum – all approved waste forms other than solidified/vitrified waste	≤ 1100 PE-Ci
SWB, TDOP	Overpacking an assembly of undamaged ¹ 55- or 85-gallon drums with no single payload container within the assembly exceeding 1100 PE-Ci – all approved waste forms other than solidified/vitrified waste	≤ 1200 PE-Ci
TDOP	Overpacking an undamaged ¹ SWB – all approved waste forms other than solidified/vitrified waste	≤ 1200 PE-Ci
Pipe Overpacks (Standard, S100, S200, and S300)	All approved waste forms	≤ 1800 PE-Ci
All	Solidified/vitrified waste	≤ 1800 PE-Ci

¹ An undamaged container provides an additional barrier should a breach occur in the overpack. When overpacking one or more damaged waste containers, direct loaded PE-Ci limits apply.

[B] Compliance and Verification

[B.1] Personnel calculate the activity of the CH-TRU waste container as PE-Ci according to the methodology in Appendix 5 of this Plan and CCP-TP-030. Personnel identify payload containers exceeding limits stated in Table 2, segregate them, and disposition them in accordance with approved nonconformance and corrective action management procedures. The WCO verifies compliance of the PE-Ci limits. Personnel will report the PE-Ci activity to the WIPP using the WWIS/WDS.

3.3.5 Radiation Dose Equivalent Rate

[A] Requirements

- [A.1] The external radiation dose equivalent rate of individual payload containers shall be:
- [A.2] ≤ 200 milliroentgen equivalent man (mrem)/hour (hr) at the surface with the exception of the S100 and S300 pipe overpacks which are limited to ≤ 179 mrem/hr and ≤ 155 mrem/hr, respectively, at the surface (References 23a and 23b, Section 3.2; Reference 4, Sections E1 and 2.1). Internal payload container shielding shall not be used to meet this criterion, except for authorized shielded payload container configurations such as the use of 55-gallon drums containing a pipe component or a shielded container (Reference 23a, Section 2.9). Total dose equivalent rate and the neutron contribution to the total dose equivalent rate shall be reported for each payload container in the WWIS/WDS.
- [A.3] See the CCP CH-TRAMPAC and TRUPACT-III TRAMPAC for associated package requirements (References 23a and 23b).

[B] Compliance and Verification

- [B.1] A Host site RCT measures surface dose rates of the individual payload containers in accordance with site radiological survey procedures using the beta-gamma and neutron dose rates for each container at the surface, and records the results for each payload container. If the combined beta-gamma and neutron dose rate exceeds the dose rate specified in step 3.3.5[A] at the surface for any container, the container is rejected, marked, and segregated. Total dose equivalent rate and the neutron contributions to the total payload container dose rate will be reported separately using the WWIS/WDS in accordance with CCP-TP-030.

3.3.6 Decay Heat

[A] Requirements

[A.1] See the CCP CH-TRAMPAC and TRUPACT-III TRAMPAC for decay heat requirements (References 23a and 23b).

[B] Compliance and Verification

[B.1] Personnel will compute the payload container decay heat and the measurement error manually or using a computational algorithm in accordance with CCP-TP-030. Personnel will ensure that the results of the calculations are equal to or less than the limits of the assigned shipping category. Individual radionuclide mass quantities and errors are converted to decay heat by multiplying the mass values (g) by decay heat conversion factors (W/g). Table 3.1-2 in the CH-TRAMPAC and TRUPACT-III TRAMPAC (References 23a and 23b) lists ²³⁹Pu FGE, decay heat, and specific activity for many radionuclides. The values calculated for decay heat and its associated TMU (expressed in terms of one standard deviation) shall be reported to the WWIS/WDS for each payload container in accordance with CCP-TP-030.

3.4 Physical Properties

3.4.1 Observable Liquid

[A] Requirements

[A.1] Liquid waste is not acceptable at the WIPP. Observable liquid containing PCBs is prohibited at the WIPP.

Liquid in the quantities delineated below is acceptable:

- Observable liquid shall be less than 1 percent¹ by volume of the outermost container at the time of radiography or visual examination (VE) (Reference 9).

¹The limit of "less than 1 percent" is taken from the CH-TRAMPAC and TRUPACT-III TRAMPAC and is more restrictive than the limit of "no more than 1 percent" in the HWFP.

- Internal containers with more than 60 milliliters (ml) or 3 percent by volume observable liquid, whichever is greater, are prohibited.
- Containers with Hazardous Waste Number U134 assigned shall have no observable liquid.
- Overpacking the outermost container that was examined during radiography or visual examination or redistributing untreated liquid within the container shall not be used to meet the liquid volume limits.

(Reference 9, Part 2, Section 2.3.3.1, Attachment C, Sections C-1c and C-3b; Reference 23a, Section 2.6.1; Reference 23b, Section 2.5.1; Reference 35, Appendix TRU Waste; Reference 12, Conditions of Approval, II.A.2).

[B] Compliance and Verification

[B.1] Initially, AK is used to determine container contents. Personnel estimate liquid volume by radiography and/or VE, in accordance with site-specific radiography and VE procedures (See Appendix 4, Tables B-2 and B-3). During VE, if personnel detect any liquid waste in non-transparent internal containers by shaking the internal container, they will assume that the internal container is completely filled and add the entire volume of the internal container to the total liquid in the container being characterized using VE. Personnel reject payload containers whose liquid volumes exceed the limits defined in 3.4.1 [A.1]. If necessary, personnel repackage noncompliant waste containers in accordance with site-specific VE procedures (See Appendix 4, Table B-3).

3.4.2 Sealed Containers

[A] Requirements

[A.1] Sealed containers that are greater than four liters (L) (nominal) are prohibited except for solid inorganic waste (Waste Material Type II.2) packaged in a metal container (Reference 23a, Section 2.8.1; Reference 23b, Section 2.7.1).

[B] Compliance and Verification

[B.1] Personnel will ensure that payload containers are verified to be free of sealed containers greater than four liters. Personnel use VE and/or Real-Time Radiography to ensure prohibited physical waste forms are not present in waste containers (See Appendix 4, Table B-2 through B-3).

Payload containers rejected for sealed containers greater than four liters or more are marked and segregated. The container is repackaged and reprocessed to verify the criteria are met. The WCO confirms the sealed container criteria in accordance with CCP-TP-030.

3.5 Chemical Properties

3.5.1 Pyrophoric Materials

[A] Requirements

[A.1] Radioactive pyrophoric materials shall be present only in small residual amounts (<1 percent by weight) in payload containers and shall be generally dispersed in the waste. Radioactive pyrophorics in concentrations greater than 1 percent by weight and all nonradioactive pyrophorics shall be reacted (or oxidized) and/or otherwise rendered nonreactive prior to placement in the payload container (References 23a and 23b, Section 4.1.1). Nonradionuclide pyrophoric materials are not acceptable at the WIPP (Reference 4, Section 11.4.1; Reference 9, Attachment C, Section C-1c; Reference 9, Part 2, Section 2.3.3.2; References 23a and 23b, Section 4.1.4).

[B] Compliance and Verification

[B.1] Personnel verify compliance with pyrophorics restriction by obtaining information documented in AK. VE and radiography verify there is no indication and document that waste does not contain pyrophorics or other prohibited material (See list of real-time radiography [RTR] and VE procedures in Appendix 4, Tables B-2 and B-3). Personnel review and evaluate AK to verify that waste-producing processes included

no pyrophorics or other prohibited materials. AK includes sampling and analysis data, documentation of waste stream descriptions, or actions to treat or stabilize the waste to eliminate specific characteristics.

3.5.2 Hazardous Waste

[A] Requirements

[A.1] Hazardous wastes not occurring as co-contaminants with TRU wastes (non-mixed hazardous wastes) are not acceptable at the WIPP. Each CH-TRU-mixed waste container shall be assigned one or more EPA hazardous waste codes as appropriate. Only EPA hazardous waste codes listed as allowable in the WIPP Hazardous Waste Facility Permit may be managed at the WIPP. Some of the waste may also be identified by unique state hazardous waste codes. These wastes are acceptable at the WIPP as long as the Treatment, Storage, and Disposal Facility WAC are met (Reference 9, Attachment C, Section C-1b; Reference 9, Part 2, Section 2.3.4). Wastes exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA hazardous waste numbers of D001, D002, or D003) are not acceptable at WIPP. In the context of this Plan, hazardous waste codes are synonymous with hazardous waste numbers (Reference 9, Attachment C, Section C-1c; Reference 9, Part 2, Sections 2.3.3.3, 2.3.3.7, and 2.3.4).

[B] Compliance and Verification

[B.1] Personnel will ensure that each individual waste payload container is assigned to a waste stream identified by acceptable EPA hazardous waste codes and documented on a DOE-approved WSPF. Personnel will report the hazardous waste codes for each container to the WIPP via the WWIS/WDS in accordance with CCP-TP-030. EPA hazardous waste codes are assigned based on AK. CCP uses CCP-TP-005, CCP Acceptable Knowledge Documentation, to compile, review, evaluate, confirm and report AK documentation. The AK Summary Report delineates waste streams and assigns hazardous waste codes. If data are insufficient to

demonstrate that the concentration of the constituent is less than the regulatory level, the EPA hazardous waste number for the identified constituent is applied to the waste stream. CCP will report hazardous waste codes in accordance with CCP-TP-002, *CCP Reconciliation of DQOs and Reporting Characterization Data*; CCP-TP-005 and CCP-TP-030.

3.5.3 Chemical Compatibility

[A] Requirements

[A.1] TRU waste containing incompatible materials or materials incompatible with payload container and packaging materials, shipping container materials, other wastes, repository backfill, or seal and panel closure materials are not acceptable for transport in the TRUPACT-II, TRUPACT-III, or HalfPACT or for disposal at the WIPP. Chemical constituents shall conform to the lists of allowable materials in Tables 4.3-1 through 4.3-8 of the CH-TRAMPAC. Other chemicals or materials not identified in these tables are allowed provided that they meet the requirements as specified in Section 4.3.1 of the CH-TRAMPAC and TRUPACT-III TRAMPAC (Reference 9, Attachment C, Section C-1c; Reference 9, Part 2, Section 2.3.3.4; References 23a and 23b, Sections 4.3 and 4.4).

[B] Compliance and Verification

[B.1] Personnel ensure compliance with the chemical compatibility requirements based on AK. Only wastes that have been shown to meet the approved chemical lists in Tables 4.3-1 through 4.3-8 of the CH-TRAMPAC and Tables 4.3-1 through 4.3-7 of the TRUPACT-III TRAMPAC are acceptable at the WIPP. The WCO confirms compliance with the chemical compatibility criteria in accordance with CCP-TP-030. If necessary, personnel repackage CH TRU waste containers not meeting the chemical compatibility requirement.

3.5.4 Explosives, Corrosives, and Compressed Gases

[A] Requirements

[A.1] Waste shall contain no explosives, corrosives, or compressed gases (pressurized containers) (Reference 9, Attachment C, Section C-1c; Reference 9, Part 2, Sections 2.3.3.5 and 2.3.3.7; References 23a and 23b, Section 4.2.1).

[B] Compliance and Verification

[B.1] Personnel ensure that explosives, compressed gases, and corrosive liquids are not present in payload containers. Chemicals (e.g., oxidizers) capable of forming explosive mixtures under some conditions are also prohibited from the waste. Waste-generation processes are assessed for safety hazards such as potential explosion hazards and potential inadvertent production of explosive materials in accordance with CCP-TP-005. Corrosives must be either excluded from the payload container or processed to neutralize the corrosive material or otherwise render it noncorrosive. CCP operating procedures describe the specific actions taken to ensure compliance with the corrosive material prohibition, (e.g., site-specific radiography and VE procedures [See Appendix 4, Tables B-2 and B-3]).

[B.2] Personnel verify compliance with the prohibited items requirement by obtaining AK information (e.g., administrative, operating, QA procedures, and safety assessments) documenting that waste does not contain explosives, corrosives, or pressurized containers. Personnel review and evaluate AK to verify that waste-producing processes included no prohibited or restricted materials. AK includes sampling and analysis data, documentation of waste stream descriptions, or actions to treat or stabilize the waste to eliminate specific characteristics. Personnel verify that prohibited materials are not in the waste container through radiography or VE (See list of RTR and VE procedures in Appendix 4, Tables B-2 and B-3).

3.5.5 HSG VOC Concentrations

[A] Requirements

[A.1] The headspace gas (HSG) of payload containers shall be determined in accordance with a site-specific TRAMPAC (References 23a and 23b, Section 5.2), as required.

[B] Compliance and Verification

[B.1] CCP Personnel ensure that the required QAOs meet the requirements specified for gas generation rates in the Gas Generation QAPjP. For those payload containers that exceed the flammable volatile organic compound (VOC) limit, a determination of compliance with the flammable (gas/VOC) concentration limit as described in the CH-TRAMPAC allows the payload container to be shipped in the Type B package under the test category.

[B.2] Test category payload containers are tested by direct measurement in accordance with gas generation testing (GGT) procedures (See Appendix 4, Table B-4) to quantify the hydrogen/methane, VOC, and total gas generation rates (as appropriate) for purposes of determining if all applicable limits are met in accordance with CCP-TP-030.

[B.3] Representative sampling of HSG may be used to quantify the hydrogen/methane, VOC, and total gas generation rates (as appropriate) for purposes of determining if all applicable limits are met in accordance with CCP-TP-030.

3.5.6 Polychlorinated Biphenyl (PCB) Concentration

[A] Requirements

[A.1] For TRU and mixed-TRU wastes containing PCBs meeting the condition of approval in Reference 12, the payload container data entered into the WWIS/WDS shall include the earliest date of waste generation (i.e., the date of removal from service for disposal), the date of waste certification for disposal, and the date the waste was sent to the WIPP for disposal (Reference 12, Section III.D.4). Additionally,

the estimated weight of the PCBs in kilograms (kg) (as recorded on the Uniform Hazardous Waste Manifest [UHWM]) and a description of the type of PCB waste (e.g., PCB Articles, PCB remediation waste), shall be entered into the WWIS/WDS (Reference 13, § 761.207 [a][2] and § 761.180). Hanford, Idaho National Laboratory, Savannah River Site, Oak Ridge National Laboratory, Knolls Atomic Power Laboratory, and Los Alamos National Laboratory are authorized to ship their TRU and TRU-mixed wastes containing PCBs to WIPP (References 14 and 15).

[B] Compliance and Verification

[B.1] Personnel use AK obtained from CCP-TP-005, and/or verification, and testing to demonstrate compliance with the PCB requirement. Personnel use nondestructive examination (NDE) (VE and RTR) procedures (See Appendix 4, Tables B-2 and B-3) during packaging of newly generated waste to identify the presence of PCBs. For retrievably stored debris waste, personnel compile, record, and evaluate AK to demonstrate compliance with the PCB limitation. The WCO verifies compliance with the PCB requirements.

3.6 Data Package Contents

3.6.1 Characterization and Certification Data

[A] Requirements

[A.1] Sites shall prepare a WSPF for each waste stream. Each WSPF shall be approved by the DOE-CBFO prior to the first shipment of that waste stream. Characterization and certification information for each payload container shall be submitted to the WWIS/WDS and approved by the WWIS/WDS Data Administrator. Sites are required to estimate the cellulose, plastics, and rubber (CPR) weights and report these estimates in the WWIS/WDS on a payload container basis. Any payload container from a waste stream that has not been preceded by an appropriate certified WSPF is not acceptable at the WIPP (Reference 9, Part 2, Section 2.3.3.10).

[B] Compliance and Verification

[B.1] Personnel will verify compliance with the data package requirements by reviewing data packages in accordance with CCP-TP-001, *CCP Project Level Data Validation and Verification*, and CCP-TP-005. Personnel will prepare and submit the WSPF to DOE-CBFO in accordance with procedure CCP-TP-002. The WCO ensures that the WWIS/WDS data are entered into the system and transmitted to the DOE-CBFO for approval before waste shipment in accordance with CCP-TP-030. Waste containers will be certified under an approved WSPF prior to shipment.

3.6.2 Shipping Data

[A] Requirements

[A.1] Sites shall prepare either a Bill of Lading or a UHWM for CH-TRU waste shipments as required by the transportation requirements. The Land Disposal Restriction (LDR) notification for CH-TRU mixed waste shipments shall state that the waste is not prohibited from land disposal (Reference 9, Attachment C, Section C-5b(2); References 23a and 23b, Section 6).

[B] Compliance and Verification

[B.1] Personnel verify compliance with the data package requirements by reviewing the data packages in accordance with CCP-TP-001 and CCP-TP-005. The TCO and WCO ensure that the WWIS/WDS data are entered into the system and transmitted to DOE-CBFO for approval before waste shipment in accordance with CCP-TP-030 and CCP-TP-033.

[B.2] The TCO prepares a PCTCD/OPCTCD for each payload container and a PATCD for each payload assembly in accordance with the CCP CH-TRAMPAC prior to loading the container into a Type B package. The TCO completes the PCTCD/OPCTCD and PATCD to certify an individual payload container and a PATCD to certify the payload assembly for shipping in accordance with CCP-TP-033, which is based on

Section 6.0 of the CCP CH-TRAMPAC. The PCTCDs, OPCTCDs, and the PATCDs are completed prior to shipping the Type B package. The LDR Exemption Notification form is completed for mixed waste shipments in accordance with CCP-TP-033. The shipping site's transportation personnel or personnel prepare a bill of lading or UHWM. For non-mixed waste shipments, a Bill of Lading is prepared. A UHWM is prepared for mixed waste shipments. If the TCO is the shipper of record, shipping data are prepared in accordance with CCP-TP-033.

- [B.3] CCP Transportation is tasked with the final review of the payload assembly and documentation. The final approval of the assembly and documentation (UHWM or Bill of Lading) is done by CCP Transportation or other certified Host site program.

4.0 WASTE ACCEPTANCE REQUIREMENTS AND CRITERIA FOR RH WASTE

This section describes how the CCP complies with the requirements of the WIPP WAC for RH waste and associated requirements contained in the WIPP DSA (Reference 4), RH TRU 72-B and 10-160B Certificates of Compliance (References 7 and 8), WIPP LWA (Reference 2), WIPP Hazardous Waste Facility Permit (Reference 9), Compliance Recertification Decision (Reference 10), Initial Report for PCB Disposal Authorization (Reference 11), EPA letter of approval to land dispose non-liquid PCBs at WIPP (References 12 and 13), Revision to the Record of Decision for the DOE's WIPP Disposal Phase and associated WIPP NEPA database (References 14 and 15), EPA's letter of approval of DOE's RH TRU Waste Characterization Program (Reference 16), and the WCPIP (Reference 17).

4.1 Organization of Requirements

The purpose of Section 4.0 and related appendices is to describe the compliance methods and rationale for the requirements and associated criteria that must be met for RH TRU waste to be transported to, managed at, and disposed of in the WIPP. The requirements/criteria and associated compliance methods are organized under five major headings: Container Properties, Radiological Properties, Physical Properties, Chemical Properties, and Data Package Contents. Sections 4.7 through 4.11 correlate with the organization in the WIPP WAC for RH TRU waste requirements and identify methods of compliance to meet each requirement. Procedures that implement the process controls, techniques, tests, and other actions to be applied to each RH-TRU payload container, waste stream, and shipment are also identified. Revisions of requirements in referenced documents controlled by agencies or organizations other than DOE (e.g., EPA, NMED and NRC) shall have precedence over values quoted in this Plan. Changes incorporated in future revisions of the WIPP WAC for RH waste will be reflected in future revisions of this Plan.

In addition to the discussion described in this section, a CCP RH-TRU Waste Certification Plan for 40 CFR Part 194 compliance is presented in Appendix 11, CCP RH TRU Waste Certification Plan for 40 CFR Part 194 Compliance to this Plan. This Appendix satisfies the WCPIP requirement for a waste certification plan that provides, among other things, a listing of the DQOs specified in the WCPIP and the identification of methods and a description of the rationale that will be used to assess compliance with those DQOs.

Regarding any discussions of compliance and verification methods, if a requirement is not met, personnel will initiate an NCR or a CAR in accordance with CCP-QP-005. Corrective action will be taken in accordance with CCP-QP-029 to resolve nonconformances. Section 5.3

provides additional details about the NCR/CAR process. Only waste from a properly characterized waste stream will be certified as meeting the requirements and associated criteria contained in this Plan. Waste containers for a waste stream which has not been represented by an approved WSPF will not be shipped to WIPP for disposal (Reference 9, Part 2, Section 2.3.3.10). The required characterization, certification, and shipping data will be transmitted to the WIPP using the WWIS/WDS.

4.2 DOE Operations and Safety Requirements for WIPP

4.2.1 The WIPP DSA addresses waste handling and emplacement operations. Waste acceptance for emplacement in the WIPP will conform to the WAC to meet the DSA (Reference 4).

4.3 NRC Transportation Safety Requirements

4.3.1 Acceptable methods for payload compliance are defined in the RH-TRU 72-B and 10-160B Certificates of Compliance (References 7 and 8).

Acceptable methods for payload compliance for the RH-TRU 72-B are implemented by the RH-TRAMPAC (Reference 41). CCP-PO-505 describes how CCP will ensure compliance with each payload parameter. The CCP RH-TRAMPAC contains sufficient detail to allow reviewers to adequately understand and evaluate the compliance methodology for each payload parameter.

The payload requirements for the 10-160B package and site-specific compliance are specified by the 10-160B SAR (Reference 38). Prior to use of the 10-160B package, CCP will prepare a CCP Appendix if applicable. For shipments in the 10-160B package, CCP verifies compliance to the requirements for the applicable site-specific appendix to the 10-160B SAR. The 10-160B SAR does not require the preparation of a site-specific "TRAMPAC."

4.3.2 The QA Program described in Section 5.0 defines the QA activities that apply to the use of NRC-approved transportation packaging in accordance with 10 CFR Part 71, Subpart H (Reference 24).

4.4 NMED Hazardous Waste Facility Permit Requirements

4.4.1 TRU waste is classified as TRU-mixed waste if it contains hazardous constituents regulated under the New Mexico Hazardous Waste Act (Reference 25). Only TRU-mixed waste and TRU waste that have been characterized in accordance with the WIPP WAP and that meet the Treatment, Storage and Disposal Facility (TSDF) WAC as presented in permit Sections 2.3.3.1 through 2.3.3.10 will be shipped to WIPP for disposal. The CCP QAPjP describes compliance with the WIPP WAP.

4.5 EPA Compliance Recertification Decision Requirements

4.5.1 Title 40 CFR § 194.24(c) requires the DOE to specify the limiting values for waste components to be emplaced in the repository (Reference 26). The EPA's Compliance Recertification Decision (Reference 10) identifies the repository limits for several waste components including free water, metals, and CPR.

4.5.2 CCP estimates or determines the weight of CPR and reports this estimate in the WWIS/WDS on a container basis. The repository limit for CPR is a maximum of 2.2×10^7 kg. In addition, CCP quantifies and reports the activity values of each of the following radionuclides for purposes of tracking the inventory curie content: ^{241}Am , ^{238}Pu , ^{239}Pu , ^{240}Pu , ^{242}Pu , ^{233}U , ^{234}U , ^{238}U , ^{90}Sr , and ^{137}Cs . The presence or absence of these radionuclides is determined using AK documentation and radiological characterization techniques performed in accordance with the WCPIP. The results of these determinations are reported in the WWIS/WDS on a payload container basis. TRU waste payload containers shall contain more than 100 nCi/g of alpha-emitting TRU isotopes with half-lives greater than 20 years, as specified in Section 4.8.3 (Reference 47).

4.5.3 EPA Approval for PCB Disposal

PCB-contaminated TRU and PCB-contaminated TRU waste mixed with a hazardous waste including PCB remediation waste, PCB articles, and PCB bulk product waste may be stored and disposed at the WIPP (References 11, 12, 13, 14 and 15). Applicable waste acceptance criteria are addressed in Sections 4.7.5 (Identification/Labeling), 4.9.1 (Observable Liquids), and 4.10.6 (Polychlorinated Biphenyls).

Waste streams identified as containing PCBs shall be brought to the attention of the CBFO in order that a determination can be made regarding their acceptability at WIPP.

4.6 WIPP Land Withdrawal Act Requirements (Public Law 102-579)

4.6.1 WIPP can accept only radioactive waste generated by atomic energy defense activities of the United States (Reference 2, Section 2[19]). A TRU waste is eligible for disposal at WIPP if it has been generated in whole or in part by one or more of the following functions (References 27 and 28):

- naval reactors development
- weapons activities, including defense inertial confinement fusion
- verification and control technology
- defense nuclear materials production
- defense nuclear waste and materials by-products management
- defense nuclear materials security and safeguards and security investigations
- defense research and development

Using AK, CCP determines that each waste stream to be disposed of at WIPP is "defense" TRU waste (Reference 2).

4.6.2 High-level radioactive waste or spent nuclear fuel shall neither be transported, emplaced, nor disposed of at WIPP (Reference 2, Section 12). Also, no TRU waste may be transported by or for the DOE to or from WIPP, except in packages:

- the design of which has been certified by the NRC, and
- that have been determined by the NRC to satisfy its QA requirements.

4.7 Container Properties

4.7.1 Description

[A] Requirements

[A.1] The only payload containers authorized for receipt of RH-TRU waste in the RH bay of the Waste Handling Building at WIPP include 55-gallon drums and RH-TRU waste canisters shipped in 10-160B and RH-TRU 72-B packaging, respectively (references 7 and 8). The site shall report the number and type of payload containers to WIPP using the WWIS/WDS.

[A.2] Payload containers must meet DOT Type 7A standards (Reference 4, Section 2.5.2). Prior to loading in the transportation packaging, the exterior of a payload container must undergo 100 percent visual inspection to ensure compliance with the requirement that payload containers be in good and unimpaired condition. The results of this visual inspection must be documented. Inspection of 55-gallon drums shall be documented using the payload container integrity checklist contained in Appendix 7. A payload container is in good and unimpaired condition if it does not have significant rusting, is of sound structural integrity, and does not show signs of leakage.

The RH-TRU waste canister shall comply with the specifications in the CCP RH-TRAMPAC (Reference 7).

[B] Compliance and Verification

[B.1] CCP only uses RH-TRU 72-B waste canisters for use in the RH-TRU 72-B cask as payload containers for RH waste. The only authorized payload container of RH-TRU waste for shipment in the 10-160B to WIPP is a 55-gallon drum. CCP reports the number and type of payload containers to WIPP using the WWIS/WDS in accordance with procedure CCP-TP-530, *CCP RH TRU Waste Certification and WWIS/WDS Data Entry*.

[B.2] The CCP procures canisters in accordance with procedure CCP-QP-015 to comply with specifications

of Appendix 1.3.4 of the DSA for the RH-TRU 72-B Cask.

One hundred percent visual inspection of the exterior of the payload container is performed to ensure that the payload container is in good and unimpaired condition. The results of this inspection are documented. Inspection of payload containers for compliance to requirements is performed in accordance with CCP-TP-507, *CCP Shipping of Remote-Handled Transuranic Waste*.

All payload containers are assigned to a Content Code per procedure CCP-TP-530.

4.7.2 Weight Limits

[A] Requirements

[A.1] Each payload container shall comply with the following maximum weight limit:

- Removable Lid Canister (direct loaded or drum loaded) – 4,240 lbs (Reference 39)
- Welded Lid Canister (direct loaded) – 5,250 lbs (Reference 40)
- Welded Lid Canister (drum loaded) – 5,980 lbs (Reference 40)
- NS15 Neutron Shielded Canister – 3100 lbs (Reference 41)
- NS30 Neutron Shielded Canister – 3100 lbs (Reference 41)
- 1,000 lbs (453.59 kg) per 55-gallon drum (Reference 17, Section 2.4.1; Reference 4, Section 2.5.2.2)

See the RH-TRU 72-B and/or 10-160B packaging Certificates of Compliance for applicable package weight limits (References 7 and 8).

[B] Compliance and Verification

[B.1] CCP verifies the weight limits of the canister and the RH-TRU 72-B cask are within tolerance using DOE/WIPP 02-3284, *RH Packaging Operations Manual*. The TCO certifies compliance to applicable weight limits on the Packaging Transportation Certification Document (PTCD) in accordance with CCP-TP-507.

[B.2] CCP verifies the weight limits of the payload containers and the 10-160B cask are within tolerance using DOE/WIPP 06-3336, 10-160B RH Cask Program Guidance. The TCO certifies compliance to applicable weight limits in accordance with CCP-TP-507.

4.7.3 Assembly Configurations

[A] Requirements

[A.1] See the RH-TRU 72-B and/or 10-160B packaging Certificates of Compliance for assembly configuration requirements (References 7 and 8).

[B] Compliance and Verification

[B.1] Loading of waste, either direct loading or loading with drums, into RH-TRU canisters is performed in accordance with site-specific canister loading procedures.

[B.2] Loading of waste drums, into a 10-160B Cask is performed in accordance with 10-160B loading procedures.

4.7.4 Removable Surface Contamination

[A] Requirements

[A.1] Removable surface contamination on TRU waste payload containers, payload assemblies, and packagings shall not exceed 20 dpm/100 cm² alpha and 200 dpm/100 cm² beta-gamma (Reference 9, Attachment A1, Section A1-1d[2]; References 29 and 30). The fixing of surface contamination to meet these criteria is not allowed by WIPP in accordance

with best management practices for ensuring worker radiation dose is within the as low as reasonably achievable (ALARA) guidelines.

[B] Compliance and Verification

[B.1] Compliance is achieved by measurement using radiological contamination surveys. Specifically, a Host site RCT surveys RH-TRU waste canisters for removable surface contamination prior to loading into the cask. Packaging (i.e., cask) is surveyed for removable surface contamination after completion of cask loading and prior to shipment. Survey results are then compared to removable surface contamination limits to determine compliance per procedure CCP-TP-530. If removable contamination exceeds limits, surfaces may be wiped and cleaned and resurveyed to achieve compliance. Fixing of surface contamination is prohibited.

4.7.5 Identification/Labeling

[A] Requirements

[A.1] Each payload container shall be labeled with a unique payload container identification number permanently applied in a conspicuous location. The unique payload container identification number shall include a site identifier as a prefix.

[A.2] For the RH-TRU waste canisters, payload container labeling shall be as follows:

- Each canister shall be labeled with a unique payload container identification number (ID) that includes a site identifier as a prefix.
- The characters composing the canister ID number shall be approximately 2-inches high and of a color contrasting with their background.
- A minimum of three canister ID numbers shall be placed at approximately equal intervals around the circumference of the canister and within 18-inches of the top of the canister.

- [A.3] Exceptions to the labeling/identification requirements may be granted upon request to and approval from the CBFO.
- [A.4] The 10-160B 55-gallon payload container identification shall be in medium to low density Code 39 bar code symbology as required by ANSI, standard ANSI/AIM BC1-1995 (Reference 31) in characters at least 1-in. high and alphanumeric characters at least ½-in. high. In the case of 55-gallon drums, the labels must be placed approximately 120 degrees apart so that one label is visible once the containers are assembled into a 5-drum carriage.
- [A.5] Payload containers shall be marked "Caution Radioactive Material" using a yellow and magenta label as specified in 10 CFR Part 835 (Reference 30). Those payload containers whose contents are also RCRA regulated (mixed-TRU), shall be additionally marked "Hazardous Waste" as specified in 40 CFR §262.32 (Reference 33). For TRU and TRU-mixed wastes containing PCBs, the payload containers shall be marked in accordance with 40 CFR §761.40 (References 12 and 13). Additionally, DOT Type B packages containing PCBs must be properly marked in accordance with 40 CFR §761.40 (References 12 and 13).
- [A.6] If an empty 55-gallon drum is used as dunnage to complete a payload configuration in the 10-160B package, the dunnage container shall be labeled with the following information:
- Unique payload container identification number
 - "EMPTY" or "DUNNAGE"
- [A.7] If a five-drum carriage of only dunnage 55-gallon drums is used in the 10-160B, the containers shall be labeled only "EMPTY" or "DUNNAGE," and the unique container identification number label is not required for these containers.

[B] Compliance and Verification

[B.1] CCP verifies canisters are labeled in accordance with CCP-TP-507 procedure. This procedure must include instructions to satisfy the following requirements:

- Each canister is labeled with a unique ID that includes a site identifier as a prefix.
- Characters composing the canister ID number on labels are approximately 2-inches high and of a color contrasting with their background.
- A minimum of three canister ID labels are placed on a canister at approximately equal intervals around the circumference of the canister and within 18-inches of the top of the canister.
- Alternate labeling of payload containers may be used only after a request to use an alternate labeling approach is submitted and approved by CBFO on a case-specific basis.

[B.2] CCP verifies payload containers are marked in accordance with CCP-TP-507 procedure. These procedures must contain instructions to ensure the following:

- All RH-TRU and TRU mixed payload containers are marked "Caution Radioactive Material" using a yellow and magenta label.
- All RH-TRU mixed waste payload containers are marked "Hazardous Waste."
- All RH-TRU DOT Type B packages containing PCBs are marked in accordance with 40 CFR § 761.40.

[B.3] CCP verifies 10-160B 55-gallon payload containers are labeled in accordance with procedure CCP-TP-507.

4.7.6 Dunnage

[A] Requirements

- [A.1] See the 10-160B packaging Certificate of Compliance for dunnage requirements (Reference 8).

To maximize the efficiency of operations at the WIPP, CCP will minimize the use of dunnage drums.

[B] Compliance and Verification

- [B.1] The use of dunnage is not applicable to the RH-TRU 72-B shipping package. The minimization of the use of dunnage for the 10-160B Cask is through payload configuration. The use of dunnage drums is reviewed and approved concurrently with the review and approval of shipment assemblies by the WWIS/WDS Data Administrator on a case-by-case basis.
- [B.2] CCP verifies 10-160B 55-gallon dunnage containers are labeled in accordance with procedure CCP-TP-507.

4.7.7 Filter Vents

[A] Requirements

- [A.1] Each payload container and any sealed secondary or internal containers (greater than four liters in size), in the payload container shall meet the filter vent specifications of Reference 4, Section 2.5.2; Reference 7; Reference 8; Reference 9, Attachment A1, Section A1-1b[2]; and Reference 41; Section 2.4.1. These filter vents shall meet the specification of the 10-160B SAR and RH-TRAMPAC (Reference 38; Reference 41, Section 2.4.1).

The model number of each filter vent or combination of filter vents installed on a payload container shall be reported to the WWIS/WDS database (Reference 48).

[B] Compliance and Verification

- [B.1] The TCO verifies the presence and model of filter(s) installed on individual payload containers in accordance with CCP-TP-507. CCP verifies any sealed secondary or internal containers (greater than

four liters in size), overpacked in the payload container shall be either vented or filtered to meet the specifications of Reference 7 or Appendix 1.3.5 of Reference 8 by VE using CCP-TP-500, *CCP Remote-Handled Waste Visual Examination*, or an evaluation of the AK record. CCP procures filters in accordance with CCP-QP-015 to specifications that comply with all applicable requirements for filter vents. Only filters identified on the listing of approved CBFO filter vent models are procured by CCP.

[B.2] The model numbers of each filter vent or combination of filter vents installed on a payload container (and internal containers, as applicable) are reported to the WWIS/WDS in accordance with procedure CCP-TP-530.

4.8 Radiological Properties

With respect to the required radiological properties identified within this Section, they can be divided into two distinct groups.

The first group includes the activities and masses of the ten WIPP-tracked radionuclides (i.e., ^{241}Am , ^{238}Pu , ^{239}Pu , ^{240}Pu , ^{242}Pu , ^{233}U , ^{234}U , ^{238}U , ^{90}Sr , and ^{137}Cs), and the TRU alpha activity concentration (i.e., >100 nCi/g of alpha-emitting TRU isotopes with half lives greater than 20 years), of the waste. Total activity will be quantified and tracked to ensure compliance with the LWA limits for RH-TRU waste including limiting activity to 23 curies per liter (Ci/l) per canister, limiting disposed RH-TRU waste to 5.1 million curies, and limiting surface dose rates of canister to 1000 roentgen equivalent man per hour (rem/hr). No more than 5 percent by volume of the RH-TRU waste received at WIPP may have a surface dose rate in excess of 100 rem/hr. Estimates of their activities and masses shall be derived from a system of controls certified by CBFO that includes AK, computations, measurements, and sampling (Reference 35). CCP RH-TRU Waste Certification Plan for 40 CFR Part 194, Compliance, provides the methods and requirements used to characterize the radiological composition of the RH-TRU waste.

The second group includes the remaining radionuclides contributing to the FGE, the PE-Ci, and the decay heat of the payload container. This set of radiological data is regulated both by the NRC as specified in the RH transportation documentation (References 7 and 8), and the CBFO as required by the WIPP DSA (Reference 4). PE-Ci quantities shall be calculated for each payload container in accordance with Appendix 5. Any method that complies with the Certificate of Compliance may be used to quantify the remaining radiological properties at the discretion of the shipping facility.

However, the resulting data (e.g., AK from Safeguards and Security data), the source and method from which the data was generated, and the basis for the reliability of the data shall be submitted to and approved by CBFO prior to use.

4.8.1 Radionuclide Composition

[A] Requirements

- [A.1] RH-TRU waste received at the WIPP shall not exceed 23 curies per liter maximum activity level (averaged over the volume of the canister) (Reference 2, Section 7).
- [A.2] Contents of the 10-160B may include fissile material contaminants provided the mass limits of the 10 CFR 71.15 are not exceeded and the plutonium content does not exceed 0.74 tera-bequerel (20 curies) (Reference 8). The quantity of radioactive material must not exceed 3,000 times the Type A quantity (Reference 8).
- [A.3] The activities and masses of ^{241}Am , ^{238}Pu , ^{239}Pu , ^{240}Pu , ^{242}Pu , ^{233}U , ^{234}U , ^{238}U , ^{90}Sr , and ^{137}Cs shall be established on a payload container basis for purposes of tracking their contributions to the total WIPP radionuclide inventory (Reference 35). The estimated activities and masses, including their associated TMU expressed in terms of one standard deviation, for these ten radionuclides shall be reported to the WWIS/WDS on a payload container basis. For any of these ten radionuclides whose presence can be substantiated from AK, direct measurement, computations, or a combination thereof, and for which measured data are determined to be below the LLD for that radionuclide, the site shall report the character string "< LLD" to the WWIS/WDS for the activity and mass of that radionuclide; otherwise a value of zero shall be reported (Reference 17, Section 2.4.6).
- [A.4] In addition, all radionuclides other than the ten WIPP-tracked radionuclides (i.e., ^{241}Am , ^{238}Pu , ^{239}Pu , ^{240}Pu , ^{242}Pu , ^{233}U , ^{234}U , ^{238}U , ^{90}Sr , and ^{137}Cs), that contribute to 95 percent of the radioactive hazard for the payload container shall be reported on the RH-TRU 72-B or 10-160B bill of lading or manifest. The activities and masses of these other

radioisotopes shall also be reported to the WWIS/WDS along with their associated TMU, expressed in terms of one standard deviation, for each waste container (Reference 35).

[B] Compliance and Verification

- [B.1] CCP determines the radionuclide composition and quantity through a combination of AK and established radionuclide measurement methods (e.g., CCP-TP-504, *CCP Dose-to-Curie Survey Procedure for Remote-Handled Transuranic Waste*). The radionuclide measurement methods that may be used are described in greater detail in Appendix 11. Radionuclide measurement is either performed directly on the payload container or on all of the smaller waste containers composing the payload container. If radionuclide measurement is not performed directly on the payload container itself, then, the measurement values (and uncertainties) for the payload container are calculated from the associated measurement results for all of the smaller containers composing the payload container.

CCP uses radionuclide measurement results to calculate and quantitate the total activity averaged over the volume of the payload container in the RH-TRU 72-B Cask to determine compliance with the 23 Ci/l limit.

CCP uses radionuclide measurement results to quantitate the activity and masses of the ten WIPP-tracked radionuclides and all other radionuclides that contribute to 95 percent of the radioactive hazard in a payload container. The activities and masses of these radionuclides, including their associated TMU (expressed in terms of one standard deviation), are reported to the WWIS/WDS on a payload container basis per procedure CCP-TP-530 and are reported on the Bill of Lading or UHWM. For any of the ten WIPP-tracked radionuclides that are measured below the LLD and whose presence can be substantiated from AK, direct measurement, computations, or a combination thereof, are reported as "< LLD" for its activity and mass to the WWIS/WDS.

[B.2] The contents of the 10-160B may include fissile material contaminants provided the mass limits of the 10 CFR 71.15 are not exceeded and the plutonium content does not exceed 0.74 tera-bequerel (20 curies) (Reference 8). The quantity of radioactive material must not exceed 3,000 times the Type A quantity (Reference 8). Compliance to these requirements are accomplished and verified through procedures CCP-TP-507 and 10-160B loading procedures.

4.8.2 ^{239}Pu Fissile Gram Equivalent/ ^{235}U Fissile Equivalent Mass (FEM)

[A] Requirements

[A.1] Each canister must comply with the limits in either Table 4 or Table 6. For a canister, either the sum of the ^{239}Pu FGE plus two times its associated TMU, expressed as one standard deviation, shall comply with the applicable limits in Table 4 or the ^{235}U Fissile Equivalent Mass (FEM) weight percentage plus two times its associated TMU, with TMU expressed in terms of one standard deviation, shall comply with the applicable limit in Table 6 (Reference 7).

[A.2] See the 10-160B packaging Certificates of Compliance for applicable ^{239}Pu FGE requirements (Reference 8 and Table 5 for associated drum requirements).

[A.3] The values calculated for the ^{239}Pu FGE or ^{235}U FEM and their associated TMUs (expressed in terms of one standard deviation) shall be reported to the WWIS/WDS for each payload container.

Table 4. ²³⁹Pu FGE Limits for a Canister Shipped in an RH-TRU 72-B Package

Payload Contents	²³⁹ Pu FGE Limit (Removable/Welded Lid Canister)	²³⁹ Pu FGE Limit (Neutron Shielded Canister)
Non-Machine-Compacted Waste		
Be/BeO limited to ≤ 1 percent by weight of the waste	≤ 315	≤ 245
Be/BeO limited to ≤ 1 percent by weight of the waste including credit taken for ≥ 5g of ²⁴⁰ Pu Poisoning ¹	≤ 325	≤ 245
Be/BeO limited to ≤ 1 percent by weight of the waste including credit taken for ≥ 15g of ²⁴⁰ Pu Poisoning ¹	≤ 350	≤ 245
Be/BeO limited to ≤ 1 percent by weight of the waste including credit taken for ≥ 25g of ²⁴⁰ Pu Poisoning ¹	≤ 370	≤ 245
Be/BeO > 1 percent by weight of the waste and is chemically or mechanically bound	≤ 305	Unauthorized
Be/BeO > 1 percent by weight of the waste and is not chemically or mechanically bound	≤ 100	Unauthorized
Machine-Compacted Waste		
Be/BeO limited to ≤ 1 percent by weight of the waste	≤ 245	≤ 245
Be/BeO > 1 percent by weight of the waste	Unauthorized	Unauthorized

¹The minimum ²⁴⁰Pu content for the RH-TRU waste canister shall be determined after the subtraction of two times the error.

Table 5. ^{239}Pu FGE Limits for Drums Shipped in a 10-160B Package

Payload Contents	^{239}Pu FGE Limit
Non-Machine-Compacted Waste	
55-gallon drum (Be/BeO limited to ≤ 1 percent by weight of the waste)	≤ 200 g
55-gallon drum (Be/BeO > 1 percent by weight of the waste)	≤ 100 g
Machine-Compacted Waste	
55-gallon drum (Be/BeO limited to ≤ 1 percent of the weight of the waste)	≤ 170 g
55-gallon drum (Be/BeO limited ≤ 1 percent of the weight of the waste). 1.0-in. design spacing must be maintained between drum content and exterior top and bottom	≤ 200 g

Table 6. ^{235}U FEM Limit for a Canister Shipped in an RH-TRU 72-B Package

Payload Contents	Weight % ^{235}U FEM (Removable/Welded Lid Canister)	Weight % ^{235}U FEM (Neutron Shielded Canister)
Non-machine compacted homogenous solid/sludge with a particle size characteristic dimension of 1 in. or less that is primarily uranium (in terms of heavy metal component) with waste matrix distributed to not exceed enrichment limit (Reference 41).	≤ 0.96	Not Applicable

[B] Compliance and Verification

- [B.1] CCP determines the quantity of fissile material in a payload container using established radionuclide measurement methods performed on the contents of the payload container as described in Appendix 11. Radionuclide measurement results are used to calculate the ^{239}Pu FGE and associated uncertainty (expressed as one standard deviation) for a payload container.
- [B.2] CCP determines the presence and quantity of beryllium on a waste stream basis by AK and is documented in the associated waste stream AK Summary Report. AK documentation is collected, evaluated and reported in accordance with CCP-TP- 005 and is summarized on a waste stream basis in AK Summary Reports.

- [B.3] CCP compares the measured/calculated FGE plus two times uncertainty for a payload container and cask to the applicable FGE limits based on beryllium content.
- [B.4] CCP reports the values calculated for the FGE and its associated uncertainty for each payload container to the WWIS/WDS as two separate items in accordance with CCP-TP-530.

4.8.3 TRU Alpha Activity Concentration

[A] Requirements

- [A.1] TRU waste payload containers shall contain more than 100 nCi/g of alpha-emitting TRU isotopes with half-lives greater than 20 years (Reference 2, Section 2 [18]). Without taking into consideration the TMU, the TRU alpha activity concentration for a payload container is determined by dividing the TRU alpha activity of the waste by the weight of the waste.

The TRU alpha activity concentration shall be reported to the WWIS/WDS (Reference 35, Chapter 4; Reference 17, Section 2.4.5).

[B] Compliance and Verification

- [B.1] CCP uses established radionuclide measurement methods (see Appendix 11) to quantitate the amount of alpha-emitting TRU isotopes with half-lives greater than 20 years (i.e., TRU alpha activity) in the waste contents of payload containers. Calibrated scales are used to determine the weight of waste material in payload containers (i.e., determine the net weight). The TRU alpha activity concentration is calculated by dividing the measured TRU alpha activity (without uncertainty) in a payload container by its net weight. Calculations are performed either manually or with the use of validated computational algorithms. If containers (e.g., 55-gallon or 30-gallon drums) are loaded into a canister, the TRU alpha activity concentration for the canister is determined by dividing the summation of the individual TRU alpha activity values of the individual waste containers by the summation of the individual net weights. Methods used to determine the TRU alpha activity

concentration have a lower limit of detection of 100 nCi/g or less.

The TRU alpha activity concentration for a payload container is reported to the WWIS/WDS in accordance with CCP-TP-530.

4.8.4 ²³⁹Pu Equivalent Activity

[A] Requirements

[A.1] PE-Ci limits are shown in Table 7.

[A.2] PE-Ci quantities shall be calculated for each payload container (see Appendix B), and reported to WIPP using the WWIS/WDS (Reference 4, Section 3.3.2.3.1 and Table 3.3-6). There are no reporting requirements for the associated TMU (Reference 44).

Table 7. PE-Ci Limits

Payload Container	Packing Configuration	PE-Ci Limit
RH TRU Waste Canister	All approved waste forms other than solidified/vitrified waste	≤ 240
55-Gallon Drum (shipped in a 10-160B)		≤ 80
RH TRU Waste Canister	Solidified/vitrified waste	≤ 1,800
55-Gallon Drum (shipped in a 10-160B)		

[B] Compliance and Verification

[B.1] CCP uses established radionuclide measurement methods (see Appendix 11) to quantitate the amount of radioactive material in payload containers. The measurement results are used to calculate the PE-Ci for each payload container as specified in Appendix 5. CCP compares the calculated PE-Ci (without uncertainty) value to the applicable PE-Ci limits for a payload container, assembly or drum to determine compliance with applicable limits.

CCP reports the calculated PE-Ci quantities for each payload container to WIPP using the WWIS/WDS in accordance with CCP-TP-530.

4.8.5 Radiation Dose Equivalent Rate

[A] Requirements

[A.1] The external surface radiation dose equivalent rate of individual containers must be ≥ 200 mrem/hr and $\leq 1,000$ rem/hr (Reference 2, Sections 2 and 7).

[A.2] Total dose equivalent rate and the neutron contribution to the total dose equivalent rate shall be reported for each payload container in the WWIS/WDS (Reference 2, Section 16 and Reference 17, Section 2.4.4).

[A.3] See the RH-TRU 72-B and/or 10-160B packaging Certificates of Compliance for applicable radiation dose equivalent rate requirements (References 7 and 8).

[B] Compliance and Verification

[B.1] CCP using Host site personnel or records, measure container dose equivalent rates in accordance with site radiological survey procedures. The measurements are compared to applicable radiation dose equivalent rate limits and restrictions to determine compliance. The total dose equivalent rate and the neutron contribution to the total dose equivalent rate for each payload container are reported to the WWIS/WDS in accordance with CCP-TP-530.

4.8.6 Decay Heat

[A] Requirements

[A.1] See the RH-TRU 72-B and/or 10-160B packaging Certificates of Compliance for applicable decay heat requirements (References 7 and 8).

[B] Compliance and Verification

[B.1] CCP uses established radionuclide measurement methods (see Appendix 11) to quantitate the activity and mass of the radionuclides contained within the payload container. The measurement results are used to calculate the total decay heat (and TMU) for each payload container and payload assembly.

CCP compares the calculated decay heat value plus TMU (expressed in terms of one standard deviation) to the applicable decay heat limit for a payload container and payload assembly, as applicable, to determine compliance.

CCP reports the calculated decay heat values and associated TMU (expressed in terms of one standard deviation) for each payload container to WIPP using the WWIS/WDS in accordance with CCP-TP-530.

4.9 Physical Properties

4.9.1 Observable Liquid

[A] Requirements

[A.1] Liquid waste is not acceptable at the WIPP. Observable liquid containing PCBs is prohibited at the WIPP. Liquid in the quantities delineated below is acceptable.

- Observable liquid shall be less than 1 percent¹ by volume of the outermost container at the time of radiography or visual examination (Reference 9).
- Internal containers with more than 60 ml or 3 percent by volume observable liquid, whichever is greater, are prohibited.
- Containers with Hazardous Waste Number U134 assigned shall have no observable liquid.

¹The limit of "less than 1 percent" is taken from the RH-TRAMPAC and is more restrictive than the limit of "no more than 1 percent" in the HWFP.

- Overpacking the outermost container that was examined during radiography or visual examination or redistributing untreated liquid within the container shall not be used to meet the liquid volume limits.

For sites that use VE, the detection of any liquid in non-transparent internal containers, detected from shaking the internal container, will be handled by assuming that the internal container is filled with liquid and adding this volume to the total liquid in the container being characterized using VE (Reference 9, Part 2, Section 2.3.3.1; Reference 9, Attachment C, Sections C-1c and C-3b; Reference 41, Section 2.5.1; Reference 35; Reference 12, Conditions of Approval, II.A.2).

[B] Compliance and Verification

CCP initially uses AK to determine container contents. AK documentation is collected and compiled in accordance with DOE/WIPP-02-3214 and/or CCP-TP-005. Personnel estimate liquid volume by AK, radiography or VE of the waste. Personnel reject payload containers found to exceed the criteria in 4.9.1[A.1].

4.9.2 Sealed Containers

[A] Requirements

[A.1] Sealed containers that are greater than four liters (nominal), are prohibited except for metal containers packaging solid inorganic waste: this packaging configuration does not generate flammable gas (Reference 41, Section 2.7.1).

[B] Compliance and Verification

[B.1] CCP achieves compliance through AK, radiography or VE of the waste contents of payload containers. VE is performed in accordance with procedure CCP-TP-500 and radiography is performed in accordance with procedure CCP-TP-508, *CCP RH Standard Real-Time Radiography Inspection Procedure*. Unvented rigid containers greater than four liters in volume are identified and controlled by an

NCR in accordance with CCP-QP-005 and
disposed appropriately.

4.9.3 Physical Form

[A] Requirements

[A.1] Debris waste (S5000), shall be reported in WWIS/WDS as plastic using the volume of the waste container multiplied by 620 kg/cubic meters (m^3), up to the net weight of the waste. Soils and gravel (S4000) shall be reported to WWIS/WDS as the net weight of the waste with the waste material parameter type of "soil." Homogeneous solids (S3000) shall be reported to the WWIS/WDS as the net weight of the waste with the waste material parameter type appropriate to the waste. Debris included in containers of S3000 or S4000 waste shall be reported to WWIS/WDS as plastic with an estimated weight. Plastic packaging will also be reported to WWIS/WDS (as packaging), (Reference 17, Section 2.4.3).

[B] Compliance and Verification

[B.1] CCP using CCP-TP-530, reports the data to WWIS/WDS as follows: Debris waste (S5000), as plastic using the volume of the waste container multiplied by 620 kg/m^3 , up to the net weight of the waste. If the net weight of the waste is greater than the calculated plastic, the excess is assigned to the material parameters by the percentages described in the AK Report. Soils and gravel (S4000), as the net weight of the waste with the waste material parameter type of "soil." Homogenous solids (S3000), as the net weight of the waste with the waste material parameter type appropriate to the waste. Debris included in containers of S3000 or S4000 waste shall be reported to WWIS/WDS as plastic with an estimated weight. Plastic packaging will also be reported to WWIS/WDS (as packaging).

4.10 Chemical Properties

4.10.1 Pyrophoric Materials

[A] Requirements

[A.1] Radioactive pyrophoric materials shall be limited to residual amounts (<1 percent by weight), in payload containers and shall be generally dispersed in the waste. Radioactive pyrophorics in concentrations ≥ 1 percent by weight and all nonradioactive pyrophorics shall be reacted (or oxidized), and rendered nonreactive prior to placement in the payload container (Reference 41, Section 4.4.1). Nonradionuclide pyrophoric materials are not acceptable at WIPP (Reference 4, Section 11.4.1; Reference 9, Attachment C, Section C-1c; Reference 9, Part 2, Section 2.3.3.2).

[B] Compliance and Verification

[B.1] CCP demonstrates compliance through acceptable knowledge documentation. Radiography and VE will be used, when necessary, to examine a waste container to verify its physical form. Specifically, AK is used to demonstrate that nonradionuclide pyrophoric materials are not present in a waste stream and that pyrophoric radioactive materials are limited to residual amounts. Waste streams for which AK documentation indicates the possible presence of radioactive pyrophorics in concentrations greater than or equal to 1 percent by weight are reacted (or oxidized), and rendered nonreactive. AK documentation is collected and compiled in accordance with DOE/WIPP-02-3214 and CCP-TP-005 and is summarized on a waste stream basis in AK Summary Reports.

4.10.2 Hazardous Waste

[A] Requirements

[A.1] Hazardous wastes not occurring as co-contaminants with TRU wastes (non-mixed hazardous wastes), are not acceptable at WIPP. Each RH-TRU mixed waste container shall be assigned one or more hazardous waste numbers as appropriate. Only EPA hazardous waste numbers listed as allowable in the Hazardous Waste Facility Permit may be managed at WIPP. Some of the waste may also be identified by unique state hazardous waste codes. These wastes are acceptable at WIPP as long as the TSDF waste acceptance criteria are met (Reference 9, Attachment C, Section C-1b; Reference 9, Part 2, Sections 2.3.3.3 and 2.3.4). Wastes exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA hazardous waste numbers of D001, D002, or D003), are not acceptable at WIPP (Reference 9, Attachment C, Section C-1c; Reference 9, Part 2, Sections 2.3.3.7 and 2.3.4).

[B] Compliance and Verification

[B.1] CCP assigns EPA hazardous waste numbers to waste streams based on AK. AK is the basis for demonstrating compliance that hazardous waste, if present in TRU waste, occurs only as co-contaminants with the TRU waste. A more detailed description of the AK process used to assign EPA hazardous waste numbers to a waste stream is presented in the QAPjP. AK documentation is compiled, evaluated and reported in accordance with DOE/WIPP-02-3214 and CCP-TP-005 and is summarized by waste stream in an AK Summary Report.

4.10.3 Chemical Compatibility

[A] Requirements

[A.1] TRU waste containing incompatible materials or materials incompatible with payload container and packaging materials, shipping container materials, other wastes, repository backfill, or seal and panel closure materials are not acceptable for transport in

the RH-TRU 72-B or 10-160B packages or for disposal at the WIPP. Chemical constituents shall conform to the lists of allowable materials in the RH-TRU 72-B RH-TRAMPAC and Appendix 4.10.2 of the 10-160B SAR (References 41 and 38).

[A.2] The total quantity of the trace chemicals/materials (materials that occur in the waste in quantities less than 1 percent [weight]), not listed in Table 4.3-1, in the payload container is restricted to less than 5 percent weight (Reference 41). Chemical constituents in a payload of a particular waste-specific content code shall conform to the allowable chemical list for that content code. The content code must be reported to the WWIS/WDS for each payload container (References 7 and 8).

[B] Compliance and Verification

[B.1] Personnel ensure compliance with the chemical compatibility requirements based on AK. The WCO confirms compliance with the chemical compatibility criteria in accordance with CCP-TP-530. If necessary, personnel repackage waste containers not meeting the chemical compatibility requirement.

4.10.4 Explosives, Corrosives, and Compressed Gases

[A] Requirements

[A.1] Waste shall contain no explosives, corrosives, or compressed gases (pressurized containers), (Reference 9, Attachment C, Section C-1c; Reference 9, Part 2, Sections 2.3.3.5 and 2.3.3.7; Reference 41, Section 4.2.1).

[B] Compliance and Verification

[B.1] CCP assesses compliance through acceptable knowledge documentation. Specifically, AK is used to determine if explosives, corrosives, and/or compressed gases may be present in a waste stream. Radiography and VE will be used, when necessary, to examine a waste container to verify its physical form. AK documentation is collected and compiled in accordance with procedure CCP-TP-005 and is

summarized on a waste stream basis in AK Summary Reports.

4.10.5 Headspace Gas Concentrations

[A] Requirements

[A.1] The headspace gas of payload containers shall meet the requirements of the TRAMPAC (if shipping in RH-TRU 72-B packaging), or Appendix 4.10.2 (if shipping in the 10-160B packaging) (References 9, 41, and 38 respectively).

[B] Compliance and Verification

[B.1] CCP demonstrates compliance through the following methods:

- AK that demonstrates that the concentration of flammable VOCs in the headspace of waste containers of a waste stream is less than 500 parts per million (ppm).

AK documentation is collected, evaluated and reported in accordance with DOE/WIPP-02-3214 and CCP-TP-005 and is summarized on a waste stream basis in AK Summary Reports. Headspace gas sampling is performed in accordance with approved procedures.

4.10.6 Polychlorinated Biphenyls (PCBs)

[A] Requirements

[A.1] For TRU and TRU-mixed wastes containing PCBs meeting the conditions of approval in Reference 12, the payload container data entered into the WWIS/WDS shall include the earliest date of waste generation (i.e., the date of removal from service for disposal), the date of waste certification for disposal, and the date the waste was sent to the WIPP for disposal (Reference 12, Section III.D.4). Additionally, the estimated weight of the PCBs in kilograms (as recorded on the UHWM) and a description of the type of PCB waste (e.g., PCB remediation waste, PCB bulk product waste, etc.), shall be entered into the WWIS/WDS (Reference 13, §761.207(a)(2) and

§761.180). Hanford, Idaho National Laboratory, Savannah River Site, Oak Ridge Reservation, Knolls Atomic Power Laboratory, and Los Alamos National Laboratory are authorized to ship their TRU and TRU-mixed wastes containing PCBs to WIPP (References 14 and 15).

[B] Compliance and Verification

[B.1] CCP uses AK (which may include results of sampling and analysis) to identify waste streams that may contain PCBs. For waste streams that are identified as PCB contaminated, the AK record also includes a description of the type of PCB waste present (e.g., PCB remediation waste, PCB bulk product waste). AK documentation is collected, evaluated and reported in accordance with DOE/WIPP-02-3214 and CCP-TP-005 and is summarized on a waste stream basis in AK Summary Reports. Special information identified below is entered into the WWIS/WDS for each affected payload container in accordance with procedure CCP-TP-530.

1. Date of removal from service.
2. Date of waste certification for disposal.
3. Date the waste was sent to the WIPP for disposal.
4. The estimated weight of the PCBs in kilograms.
5. Description of the type of PCB waste.

CCP only certifies and ships PCB contaminated TRU waste from sites with an approved EPA PCB waste disposal authorization.

4.11 Data Package Contents

4.11.1 Characterization and Certification Data

[A] Requirements

[A.1] Sites shall prepare a WSPF for each waste stream. Each WSPF shall be approved by the Permittees prior to the first shipment of that waste stream.

Characterization and certification information for each payload container shall be submitted to the WWIS/WDS and approved by the Data Administrator. Any payload container from a waste stream that has not been preceded by an appropriate certified WSPF is not acceptable at WIPP (Reference 9, Part 2, Section 2.3.3.10).

[A.2] See the WCPIP (Reference 17) for additional characterization and certification data requirements.

[B] Compliance and Verification

[B.1] CCP prepares and submits WSPFs to the Permittees for review and approval per the instructions given in procedure CCP-TP-002. Characterization data for each payload container used to prepare the WSPF and the Characterization Reconciliation Report is submitted to the WWIS/WDS in accordance with procedure CCP-TP-530. CPR weights are estimated and input into the WWIS/WDS as described in Section 4.5.

4.11.2 Shipping Data

[A] Requirements

[A.1] Sites shall prepare either a bill of lading or a UHWM for RH TRU waste shipments as required by the transportation requirements. The land disposal restriction notification for RH TRU mixed waste shipments shall state that the waste is not prohibited from land disposal (Reference 9, Attachment C, Section C-5b(2); Reference 41).

[B] Compliance and Verification

[B.1] CCP prepares and completes the UHWM and/or Bill of Lading in accordance with CCP-TP-507. The Land Disposal Restriction Exemption Notification is completed for mixed waste shipments in accordance with procedure CCP-TP-507 and states that the waste is not prohibited from land disposal.

5.0 QUALITY ASSURANCE PLAN

The CBFO QAPD establishes QA program requirements for the programs, projects, and activities sponsored by CBFO. The NWP QAPD describes how NWP applies the QA program requirements of the CBFO QAPD to NWP activities, including CCP. This QA plan describes and implements the NWP QAPD requirements for the CCP. It is based on the NWP QAPD as it applies to the characterization, certification, and transportation of TRU waste as performed by CCP, and therefore incorporates the applicable requirements from the regulatory and commitment QA program source documents identified in the CBFO QAPD. This QA plan also fulfills the requirements for a transportation QA plan as required in 10 CFR Part 71, Subpart H. The scope of the integrated Quality Assurance Program Requirements for Nuclear Facilities (NQA)-1 Program is to ensure that all items and activities that are important to the safe containment of TRU Waste in the WIPP are in compliance with Program objectives. Applicable criteria are also identified in the individual element descriptions contained in this QA Plan.

The QA program is developed and maintained through an ongoing process that selectively applies QA criteria as appropriate to the function or work activity being performed. The organization of this QA Plan is generally based on the CBFO QAPD elements.

The QA program is implemented in accordance with a set of Quality Procedures that are applicable to all CCP activities, independent of the location where these activities are performed. The QA program also includes Technical Procedures and other documentation, some of which are site-specific and some of which are applicable across CCP. Implementing Technical Procedures are listed in the tables in Appendix 4.

QA program document references are included, as applicable, in each of the individual QA element descriptions throughout this QA Plan.

5.1 Organization and Quality Assurance Program

*(Applicable Criteria: 10 CFR 830.122 Criterion 1
40 CFR 194.22(a)(2)(i)
ASME NQA-1-1989, Criterion 1
DOE O 414.1 Criterion 1
CBFO QAPD, Section 1.1
NWP QAPD, Section 1.1)*

This QA program applies to items and activities affecting waste characterization, certification, and transportation by the CCP. The QA program elements are integrated into CCP items and activities through reviews, assessments, inspections, and approval and control of records and documents. The CCP has identified the Program Manager, the

Certification Program Manager, SPM, Assurance Programs Manager, TCO, and WCO as being responsible for ensuring QA within CCP. The responsibilities of each of these positions, as well as other personnel involved with TRU waste characterization and certification, are summarized in this Plan (Section 2.1).

Figure 1-1 (see Section 1.0) illustrates the hierarchy and interrelationships of QA documents governing the QA program. Quality management documents are audited and/or assessed to ensure they meet CCP requirements.

Personnel plan certification activities and document the planning process. Planning documentation is subject to review by subject matter experts (SMEs). CCP planning documentation consists of this Plan, the WIPP WAP, the WAC, the QAPjP, the CH-TRAMPAC, RH-TRAMPAC, the GGT QAPjP, implementing procedures, QA plans, training plans, and facility and certification process designs.

5.1.1 Organization

*(Applicable criteria: 10 CFR Part 830.122 Criterion 1
DOE O 414.1 Criterion 1
ASME NQA-1-1989, Criterion 1
CBFO QAPD Section 1.1.1
NWP QAPD, Section 1.1)*

The organization structure, functional responsibilities, levels of authority, and lines of communication for activities affecting quality are documented in this Plan, and CCP implementing procedures. Specific duties and responsibilities assigned to CCP management are summarized in the Plan, Section 2.1.1, and in CCP-PO-001.

The QA organization is responsible for ensuring the implementation of the QA program and verifying that activities affecting quality have been correctly performed. They have sufficient authority, access to work areas, and organizational freedom to identify quality problems; initiate, recommend, or provide solutions to quality problems; verify implementation of solutions; and ensure that further processing, delivery, installation, or use is controlled until proper disposition of nonconformances, deficiencies, or unsatisfactory conditions has occurred. QA personnel have direct access to responsible management at a level where appropriate action can be effected. They report to a management level such that required authority and organizational freedom are provided, including sufficient independence from cost and schedule considerations. Specific duties and responsibilities assigned to QA are summarized in the Plan, Section 2.1.4, and in CCP-PO-001.

The organizational structure of CCP, and the assignment of responsibilities, is based on the following QA principles, such that:

- Quality is achieved and maintained by those who have been assigned responsibility for performing work.
- Quality achievement is verified by personnel or organizations that are not directly responsible for performing the work.
- The individuals or organizations responsible for establishing and executing the QA program may delegate any or all of the work, but shall retain responsibility therefore.
- Responsibility for the control of further processing, delivery, installation, or operation of nonconforming items shall be designated in writing.
- When more than one organization is involved in the execution of activities covered by this document, the responsibility and authority of each organization shall be clearly established and documented.
- The external interfaces between organizations and the internal interfaces between organizational units, and changes thereto, shall be documented.
- Interface responsibilities shall be defined and documented.

All personnel involved with TRU waste certification and packaging are responsible for achieving and maintaining the quality of their activities and products. All personnel are responsible for promptly reporting existing, developing, or potential conditions adverse to quality to responsible management for evaluation and action. Management personnel are responsible for achieving and maintaining quality in the work activities under their control.

[A] Communication and Interface Responsibilities

*(Applicable Criteria: CBFO QAPD Section 1.1.1.4
NWP QAPD, Section 1.1.10 and 1.1.11)*

CCP management communicates to all levels of the organization timely information pertinent to quality performance, including status of the quality program, status and resolution of significant quality problems, lessons learned, quality management practices and improvements, and trend analysis results.

The responsibility and authority of the CCP and each participating organization are clearly established and documented in an interface document for each site. The external interfaces between CCP participant organizations, the internal interfaces between organizational units, and interface changes are documented. Interface responsibilities are defined and documented and include the requirements for management, performance, and assessment. Interfaces between CCP and the waste generating sites are detailed in project-level Interface Agreement documents specifically written for each site. Interfaces between CCP and NWP support organizations are defined in CCP implementing procedures.

[B] Reports to Management

*(Applicable Criteria: CBFO QAPD Appendix E, Section 8
NWP QAPD, Section 1.1.8)*

QA provides the QA interface between facilities and the CCP Certification Manager and SPM. QA oversees the NCR/CAR process for CCP related deficiencies and coordinates with the CCP Certification Manager and SPM to track and notify the appropriate personnel of nonconformances, and verify corrective action completion in accordance with CCP-QP-005. QA at project sites report the results of their surveillance assessments to the Assurance Programs Manager, and together they track assessment results and corrective actions. QA prepares and transmits a semi-annual QA report to the CCP Certification Manager and the DOE.

[C] Delegation of Work

*(Applicable Criteria: CBFO QAPD Section 1.1.1.5
NWP QAPD, Section 1.1.6)*

Management empowers employees by delegating authority and decision making to the lowest appropriate level in the organization. If work is delegated, the individual making the delegation retains responsibility for the delegated work. QA is responsible for determining the effectiveness of the QA program, which is accomplished through internal reporting procedures, audits, and assessments.

[D] Resolution of Disputes

*(Applicable Criteria: CBFO QAPD Section 1.1.1.6
NWP QAPD, Section 1.1.7)*

Disputes related to QA program requirements will be resolved by QA and cognizant personnel. If not resolved, the issues will be elevated progressively to successively higher levels of management as necessary.

[E] QA Management

*(Applicable Criteria: CBFO QAPD, Section 1.1.3.A
NWP QAPD, Section 1.1.5)*

QA Management shall:

- [E.1] Schedule and conduct QA assessments.
- [E.2] Maintain liaison with participant QA organizations and other affected organizations.
- [E.3] Ensure preparation, review, and issuance of QA plans and procedures that implement the provisions of the NWP QAPD.
- [E.4] Review and approve supplier and subcontractor QA plans.
- [E.5] Track or perform trend analysis of quality problems, and report quality problem areas.
- [E.6] Provide for the administrative processing of documentation of concerning conditions adverse to quality.
- [E.7] Have direct access to responsible management at a level where appropriate action can be effected.
- [E.8] Be sufficiently independent from cost and schedule considerations.
- [E.9] Have the organizational freedom to communicate with management.
- [E.10] Have no assigned responsibilities unrelated to the QA program that would prevent appropriate attention to QA matters.

[E.11] Develop, establish, and interpret QA policy and ensure effective implementation.

[E.12] Interface, as appropriate, with the CBFO staff, participants, and other stakeholders on QA matters.

[E.13] Assist subordinate organizations with quality planning, documentation, quality measurement, and problem identification and resolution.

[E.14] Provide guidance to all applicable subordinate organizations concerning identification, control, and protection of QA records.

[F] The QA organization shall have sufficient authority, access to work areas, and organizational freedom to:

*(Applicable Criteria: CBFO QAPD, Section 1.1.1.3.B
NWP QAPD, Section 1.1.5)*

[F.1] Identify quality problems.

[F.2] Recommend solutions.

[F.3] Verify implementation of solutions.

[F.4] Ensure that unsatisfactory conditions are controlled until proper disposition has occurred.

5.1.2 Implementation of the QA Program

*(Applicable criteria: 40 CFR 194.22(a)(1)
ASME NQA-1-1989, Criterion 2
CBFO QAPD Section 1.1.2
NWP QAPD, Section 1.1.8)*

The QA program is planned, implemented, and maintained in accordance with the requirements found in the CBFO QAPD, NWP QAPD, American Society of Mechanical Engineers (ASME) NQA-1-1989, 40 CFR § 194.22, and 10 CFR § 830.122. The QA program identifies the activities and items to which it applies, and provides control over activities affecting quality to an extent consistent with their importance. The QA program has been implemented during the process of program development, start-up, and operation.

The QA program provides for the planning and accomplishment of activities affecting quality under suitable controlled conditions.

Controlled conditions include the use of appropriate equipment, suitable environmental conditions for performing waste characterization and transportation activities, and assurance that prerequisites have been satisfied. This program also provides for special controls, processes, test equipment, tools, and skills to attain the required quality and for verification of quality.

[A] Grading Items and Activities and Applying Management Controls

*(Applicable Criteria: CBFO QAPD Section 1.1.2.3
NWP QAPD, Section 1.1.8.2)*

The graded approach to application of QA controls is used by the CCP to determine the importance of the item or activity with respect to the CCP mission, regulatory requirements, hazards, and life-cycle of the item or activity. Management controls are applied commensurate with the determined importance of the item or activity. The CCP uses the graded approach in accordance with CCP-QP-001, *CCP Graded Approach*, to comply with CBFO QAPD and NWP QAPD requirements for grading items and activities and applying management controls. Revisions to CCP-QP-001 are submitted to CBFO for approval prior to implementation.

[B] Work Planning

*(Applicable Criteria: CBFO QAPD Section 1.1.2.4
NWP QAPD, Section 1.1.12)*

CCP performs and documents planning to ensure that work is accomplished under suitably controlled conditions. CCP implements planning in accordance with CCP-QP-010, *CCP Document Preparation, Approval and Control*, and CCP-QP-026, *CCP Inspection Control*. As appropriate, planning elements include:

[B.1] Definition of work scope, objectives, and a listing of the primary tasks involved.

[B.2] Identification of scientific approaches or technical methods used to collect, analyze or study results of applicable work.

[B.3] Identification of field and testing standards and quality criteria.

- [B.4] Identification of applicable implementation documents; appropriate nationally recognized standards will be used whenever possible.
- [B.5] Identification of field and testing equipment or other equipment.
- [B.6] Identification of, or provisions for the identification of, required records and the recording of objective evidence of the results of the work performed.
- [B.7] Identification of prerequisites, special controls, specific environmental conditions, processes, or skills.
- [B.8] Identification of computer software.

[C] Peer Review

*(Applicable criteria: CBFO QAPD Section 1.1.2.5
NWP QAPD, Section 1.1.12)*

When peer reviews are required, they are accomplished in accordance with CCP-TP-511, *CCP Peer Review*.

5.2 Personnel Qualification and Training

*(Applicable criteria: 10 CFR 830.122 Criterion 2
ASME NQA-1-1989, Criterion 2
DOE O 414.1 Criterion 2
CBFO QAPD Section 1.2
NWP QAPD, Section 1.2)*

The QA program provides for training and qualification, as necessary, of personnel performing activities affecting quality to ensure that suitable proficiency is achieved and maintained. Personnel performing work in support of CCP receive QA training and are qualified to ensure that proficiency is achieved and maintained in the performance of their assigned tasks. Records documenting qualifications and completed training programs are maintained and controlled. Training and qualification are performed in accordance with CCP-QP-002, *CCP Training and Qualification Plan* and CCP-QP-040, *Support Training*.

5.2.1 Qualification Requirements

*(Applicable criteria: CBFO QAPD Section 1.2.1
NWP QAPD, Section 1.2.1)*

The CCP Certification Manager and Training determine qualification standards for each job category relevant to the CCP and ensure that qualifications of personnel, including minimum education and experience, have been verified. Personnel maintain minimum qualifications in accordance with CCP-QP-002. The CCP Certification Manager determines which positions relevant to the CCP require minimum qualifications. The period of effectiveness for qualification associated with special processes and operations that require special skills and the requalification criteria are specified or referenced in CCP-QP-002. The CCP Certification Manager ensures that auditable records documenting personnel qualifications are maintained as described in CCP-QP-008, *CCP Records Management*. Records of qualified personnel, their areas of qualification, and qualification periods (as appropriate) are retained in the records files.

5.2.2 Training Requirements

*(Applicable criteria: CBFO QAPD Section 1.2.2
NWP QAPD, Section 1.2.2)*

The CCP Certification Manager and Training ensure that personnel receive indoctrination and training on the scope, purpose, and objectives and the specific QAOs of the tasks being performed. Personnel performing activities affecting quality are trained according to the training plan to ensure they achieve and maintain proficiency. Personnel receive initial and continuing training requisite with their activities and level of responsibility, as described in CCP-QP-002.

Training is designed, developed, conducted, and evaluated in accordance with requirements described in CCP-QP-002. Training programs may include classroom instruction; practical hands-on experience; supervised on-the-job training (OJT); self-paced individual study; and written, oral, or practical demonstration of worker competence. The CCP Certification Manager analyzes job positions and determines task responsibilities for personnel to ensure education, experience, and training is commensurate with minimum requirements specified. The CCP Certification Manager is responsible for ensuring that auditable records documenting the required training and qualifications are maintained in accordance with CCP-QP-002.

5.3 Quality Improvement

*(Applicable Criteria: 10 CFR 830.122 Criterion 3
ASME NQA-1-1989, Criteria 15 & 16
DOE O 414.1 Criterion 3
CBFO QAPD Section 1.3
NWP QAPD, Section 1.3)*

Quality improvement is a management process, carried out to improve items, services, products, or processes. All aspects of quality work activities and the management system are subject to continuous improvement through the assessment and feedback processes.

Conditions adverse to quality are identified promptly and corrected as soon as practical. In the case of a significant condition adverse to quality, the cause of the condition is determined and corrective action taken to preclude recurrence. The identification, cause, and corrective action for significant conditions adverse to quality are documented and reported to appropriate levels of management. Follow-up action is taken to verify implementation of corrective actions.

Items that do not conform to specified requirements are controlled to prevent inadvertent installation or use. Controls are provided for identification, documentation, evaluation, segregation when practical, and disposition of nonconforming items, and for notification to affected organizations.

Personnel continually evaluate and improve project activities. QA ensures that quality improvement is achieved by identifying and controlling conditions adverse to quality, analyzing trends, reporting and tracking nonconformances, and implementing corrective actions. These quality improvement activities detect and prevent unacceptable quality problems and thereby increase accuracy and reliability, and reduce variability. Data analysis and trending are performed in accordance with CCP-QP-014, *CCP Quality Assurance Trend Analysis and Reporting*.

A condition adverse to quality is an all-inclusive term used in reference to failures; malfunctions; deficiencies; and nonconforming items, materials, parts, or components, and processes. Personnel ensure that nonconforming items, materials, parts, or components are adequately identified and segregated from acceptable items and materials to preclude their inadvertent use. CCP and Host site personnel have the authority to stop certification, packaging, and transportation activities and/or refuse to accept work products or services (e.g., procured items, documentation, packaging, and waste shipments) that do not conform to requirements. Personnel report conditions adverse to quality to QA personnel, who ensure that the condition adverse to quality is investigated and that corrective action is taken as described in this section. Employees have

the responsibility to stop work that poses a clear and imminent danger to the safety and health of employees, subcontractors, visitors, or the environment.

Personnel notify QA of conditions adverse to quality affecting waste to be shipped to WIPP and forward CARs related to violations of the WIPP Hazardous Waste Facility Permit to QA for tracking. Conditions adverse to quality are documented, evaluated for significance, corrected, tracked, and reported in accordance with CCP-QP-029 and CCP-QP-005. All violations of the WIPP Hazardous Waste Facility Permit will be managed as significant conditions adverse to quality.

Deficiencies are uncontrolled and unapproved deviations from an approved plan, procedure, or expected result. Deficiencies specific to the CCP also include documentation or management practices that do not meet the requirements related to waste certification or payload container preparation, which are identified in the WIPP WAP, RH-TRAMPAC, CH-TRAMPAC, WAC, QAPD, and applicable federal and state regulations. Personnel are responsible for identifying any condition that affects compliance with these requirements. Assessments may often identify systems, processes, products, or services that do not meet performance criteria established in planning documents. When deficiencies are found, personnel take prompt action to rectify the situation.

Any individual who identifies a condition adverse to quality initiates an NCR or CAR in accordance with CCP-QP-005 or CCP-QP-029. If the safety or quality of the certification process could be compromised by continued use of a nonconforming item, the item is taken out of service and tagged or otherwise identified to prevent reuse or acceptance until the nonconformance is corrected. QA or the QA personnel at the facility where the nonconformance is identified ensures that an NCR is initiated and that corrective action is taken to resolve the nonconformance.

NCRs and CARs are forwarded to the CCP Project Office QA personnel. QA is responsible for validating and tracking CCP-related deficiencies to ensure that corrective action is implemented and that the corrective action resolves the nonconformance. Significant conditions adverse to quality are evaluated by QA and other affected organizations to determine if a work suspension is necessary. If necessary, work will be suspended until the condition is corrected and verified by QA. Personnel notify DOE-CBFO within seven calendar days of identification of any non-administrative nonconformance related to applicable requirements specified in the WIPP WAP, which are first identified at the SPM's signature release level. Personnel submit the NCR to DOE-CBFO within 30 calendar days of identification of the deficiency. QA ensures dissemination of information that may prevent problems or help improve

parallel processes in other waste generator or activities and re-evaluates system performance after corrective actions have been implemented. The CCP Certification Manager provides the resources necessary to accomplish corrective actions. Any containers with unresolved discrepancies associated with waste characterization cannot be certified for disposal; this includes containers affected by CAR's applicable to WIPP WAP and WAC requirements.

QA and the CCP Certification Manager are jointly responsible for identifying the following:

- Trends in nonconformances
- Root causes of nonconformances
- Specific, measurable corrective actions to resolve current problems and prevent recurrence
- Personnel responsible for implementing corrective actions
- Schedules for completing corrective actions

5.4 Documents

*(Applicable Criteria: 10 CFR 830.122 Criterion 4
ASME NQA-1-1989, Criteria 6
DOE O 414.1 Criterion 4
CBFO QAPD Section 1.4
NWP QAPD, Section 1.4)*

The preparation, issue, and change of documents that specify quality requirements or prescribe activities affecting quality are controlled to assure that correct documents are being employed. These documents, including changes, are reviewed for adequacy and approved for release by authorized personnel.

Personnel prepare and control documents supporting the quality of the CCP in accordance with CCP-QP-010. Document control coordinators will ensure that:

- Documents are controlled during the review and approval process.
- Applicable criteria for the review are identified. Criteria will consider technical adequacy, accuracy, completeness and compliance with requirements.
- Pertinent background information or data is made available to the reviewer.

- Reviews are performed by individuals other than the originator, who are also technically competent in the subject area.
- Organizations or technical disciplines affected by the document review the document.
- QA reviews documents that translate CBFO QAPD, WAC, WIPP WAP, CH-TRAMPAC, RH-TRAMPAC and WCPIP requirements.
- Review comments are resolved and evidence of review comment resolution is maintained.
- Documents are approved for release and distributed in accordance with CCP-QP-010. These documents include:
 - Program planning documents such as this Plan, the QAPjP, the TRAMPAC
 - Plans and procedures implementing TRU waste characterization, certification and packaging
 - Procedures implementing QA requirements
- Changes to documents, other than those designated as editorial changes, are reviewed by the same organizations that performed the original review and approval.

NWP controlled procedures are used for functions that NWP performs in support of CCP. These functions include procurement support, source inspection support, independent assessments, vendor audits, and QSL maintenance.

5.5 Records

*(Applicable Criteria: 10 CFR Part 21
10 CFR Part 71
10 CFR 830.122 Criterion 4
ASME NQA-1-1989, Criterion 17
ASME NQA-2a-1990, Addenda, Part 2.7
ASME NQA-3 1989
Waste Isolation Pilot Plant Hazardous Waste Facility
Permit
DOE O 414.1 Criterion 4
CBFO QAPD Section 1.5
NWP QAPD, Section 1.5
DOE O 414.1
DOE O 266.1
DOE G-414.1-2A
SNT-TC-1A-1980
NRC Certificate Number 9212
NRC Certificate Number 9218
NRC Certificate Number 9279
NRC Certificate Number 9204
NUREG-1297 (1988)
NUREG/BR-0167 (1993)
40 CFR Part 191
40 CFR Part 194)*

Records that furnish documentary evidence of quality are specified, prepared, and maintained. Records are legible, identifiable, and retrievable. Records are protected against damage, deterioration, or loss. Requirements and responsibilities for record transmittal, distribution, retention, maintenance, and disposition are established and documented.

A QA record is an authenticated record that provides objective evidence of the quality of items and/or activities. The minimum lifetime and nonpermanent QA records are identified in the QAPjP. QA records are controlled and maintained to certify compliance with requirements and to reflect completed work. QA records are indexed, classified, controlled, and maintained by records management personnel as described in CCP-QP-008. The Records Inventory and Disposition Schedule (RIDS) is also defined in CCP-QP-028, *CCP Records Filing, Inventorying, Scheduling, and Dispositioning*.

Waste characterization data and QA/QC records related to TRU waste to be shipped to WIPP are designated as either Lifetime Records, or Non-Permanent Records. Records that are designated as Lifetime Records are maintained for the life of the waste characterization program

plus six years; **OR** transferred for permanent archival storage to the WIPP Records Archive. Waste characterization records designated as Non-Permanent Records will be maintained for ten years from the date of record generation and then dispositioned according to their approved RIDS.

5.6 Work Process

*(Applicable Criteria: 10 CFR 830.122 Criterion 5
DOE O 414.1 Criterion 5
CBFO QAPD Section 2.1
NWP QAPD, Section 2.1)*

The work processes and items supporting and affecting quality are controlled through plans and procedures identified in this Plan, the QAPjP, and the TRAMPAC.

Characterization, fabrication, installation, and inspection processes affecting the quality of items or services are controlled by procedures. Special processes that control or verify quality, such as those used in welding, heat treating, and nondestructive examination, are performed by qualified personnel using qualified procedures in accordance with specified requirements.

5.6.1 Work

*(Applicable Criteria: CBFO QAPD Section 2.1.1
ASME NQA-1-1989, Criterion 1
NWP QAPD, Section 2.1.1)*

The CCP Certification Manager ensures that activities are controlled and conducted in accordance with facility-specific procedures that describe and control work processes applicable to TRU waste characterization or certification.

Individual operating procedures provide controls for performance of special processes. Special process training and qualification requirements are described in CCP-QP-002.

Each individual performing work is responsible for ensuring that work processes are controlled and comply with established criteria. The CCP Certification Manager is responsible for ensuring that workers have the correct procedures, materials, and training to perform the required work. Instructions and procedures are maintained current with a documented and controlled method of revision. Instructions, procedures, and drawings are readily

available to personnel at locations requiring their use through either hard copy or electronic media.

5.6.2 Implementing Procedures

*(Applicable criteria: ASME NQA-1-1989, Criterion 5
CBFO QAPD Section 2.1.2
NWP QAPD, Section 2.1.2)*

Activities affecting quality are prescribed by and performed in accordance with documented instructions, procedures, or drawings of a type appropriate to the circumstances. These documents include or reference appropriate quantitative or qualitative acceptance criteria for determining that the prescribed activities have been satisfactorily accomplished.

Procedures and plans are developed, reviewed, approved, revised, and distributed in accordance with CCP-QP-010. CCP technical and QA personnel comply with the applicable technical standards and administrative controls described in procedures, which are reviewed and approved by the CCP Certification Manager and QA in accordance with CCP-QP-010. The CCP Certification Manager ensures personnel perform work following established procedures. For work processes such as procurement, source inspection, and independent assessments, applicable NWP non-CCP specific procedures are also used. CCP specific implementing procedures describe the required interfaces with applicable NWP general use procedures.

The procedures identified in this Plan, the QAPjP, and the TRAMPAC provide the following information:

- organizational and individual responsibilities
- training and qualification requirements
- technical, regulatory, and QA requirements
- step-by-step instructions for the process
- equipment specifications
- identification and control of items used or installed
- prevention of damage or loss and minimization of deterioration of items and materials during handling, storage, and shipment of items

- methods and criteria for ensuring and verifying the acceptability of equipment and materials used in the process (e.g., calibration)
- prerequisites, precautions, process parameters, and other limiting conditions
- products of the process
- quantitative and/or qualitative criteria for determining that prescribed process activities have been performed satisfactorily
- records generated by the process
- package and design control of equipment and materials

5.6.3 Item Identification and Control

*(Applicable Criteria: ASME NQA-1-1989, Criterion 8
CBFO QAPD Section 2.1.3
NWP QAPD, Section 2.1.3)*

Controls have been established to assure that only correct and accepted items are used or installed. Identification is maintained on items or in documents traceable to the items, or in a manner which assures that identification is established and maintained.

Items are identified and traced from time of receipt through end use. Physical markings, labels, tags or segregation are used to provide item identification and status. Specific details are provided in CCP-QP-017, *CCP Identification and Control of Items*.

5.6.4 Special Processes

*(Applicable Criteria: ASME NQA-1-1989, Criterion 9
CBFO QAPD Section 2.1.4
NWP QAPD, Section 2.1.5)*

Special processes that control or verify quality, such as those used in nondestructive examination, are performed by qualified personnel using qualified procedures in accordance with specified requirements.

Processes are considered to be special processes if:

- results are highly dependent on the control of the process
- results are highly dependent on the skill of the operator, or

- quality of the results cannot be readily determined by inspection or test of the product.

Implementing procedures have been developed to control special processes: NDE, NDA, DTC, Flammable Gas Analysis, GGT, and Helium Leak Detection. Training and qualification requirements for operators are identified in CCP-QP-002.

5.6.5 Handling, Storage, and Shipping

*(Applicable Criteria: ASME NQA-1-1989, Criterion 13
CBFO QAPD Section 2.1.5
NWP QAPD, Section 2.1.6)*

Handling, storage, cleaning, packaging, shipping, and preservation of items are controlled to prevent damage or loss and to minimize deterioration. Controls are provided through work and inspection procedures, shipping instructions, or other appropriate documents.

Measures are established in CCP-QP-015 and CCP-QP-023, *CCP Handling, Storage and Shipping*, to ensure that systems, components and items used for repair work for maintenance purposes or packaging purposes are adequately identified to preclude the use of incorrect or defective items. Also, where replacement of limited shelf life items is specified, measures are established to preclude use of items whose shelf life or time in operation has expired. Handling, storage, cleaning, shipping, and other means of preserving, transporting, and packaging of items are controlled in accordance with CCP-QP-023.

5.7 Configuration Management

*(Applicable Criteria: CBFO QAPD Section 2.2
NWP QAPD, Section 2.2)*

5.7.1 Equipment Configuration

CCP applies configuration management controls to characterization equipment, including vendor owned equipment, operated by CCP and its subcontractors on behalf of CBFO. In accordance with CCP-CM-001, *CCP Equipment Change Authorization and Documentation*, personnel:

- Coordinate the reviews of new equipment and changes/modifications/repairs to existing equipment.
- Establish and apply unique equipment numbering.

- Develop all required equipment change/modification/repair requests.
- Determine training needs due to equipment changes/modifications/repairs.
- Obtain appropriate approvals for equipment modifications, changes, repairs, and process drawing and document changes when required.
- Coordinate with host facility representatives in their reviews to ensure that proposed modifications comply with host facility Authorization Basis requirements.
- Oversee the implementation of approved changes.
- Ensure appropriate technical documentation is maintained on equipment changes/modifications/repairs.

5.7.2 Software Configuration

CCP applies configuration management controls to computer software and hardware/software configurations in accordance with the requirements of CCP-QP-022, as described in Section 5.14 of the Plan.

5.8 Procurement

*(Applicable Criteria: 10 CFR 830.122 Criterion 7
ASME NQA-1-1989 Criteria 4 & 7
DOE O 414.1 Criterion 7
CBFO QAPD Section 2.3
NWP QAPD, Section 2.3)*

Applicable design bases and other requirements necessary to ensure adequate quality are included or referenced in documents for procurement of items and services. Procurement documents require suppliers to have a QA program consistent with the graded application of quality requirements. Procurements are controlled to ensure conformance with specified requirements. Procurement controls provide for source evaluation and selection, evaluation of objective evidence of quality furnished by the supplier, source inspection, audit, and examination of items or services upon delivery or completion.

CCP implements procedures to ensure that procurement of items and services important to safety and quality meet requirements and perform as intended. Procurement controls are applicable to equipment and services,

including commercial grade items that directly affect testing, and data quality. Other NWP organizations provide support to the CCP for procurement process elements such as procurement planning, supplier selection and evaluation, bid evaluation, supplier performance evaluation, requisition review and processing, and procurement records. Personnel adhere to procurement and record keeping practices established in written procedures. The procurement criteria are implemented according to CCP-QP-015, NWP procedure WP 15-PC3609, *Preparation of Purchase Requisitions and Purchase Requisition Change Notices*, and the procedures specified in the following subsections.

When deemed appropriate, CCP may permit some or all supplier work to be performed under the NWP QA program, provided that the requirements are adequately implemented. In these cases, procurement documents shall specify the NWP QA implementing procedures, including CCP specific procedures that are applicable to the supplier and that CCP will provide these applicable documents to the supplier.

5.8.1 Procurement Document Review and Approval

*(Applicable Criteria: CBFO QAPD Section 2.3.5
NWP QAPD, Section 2.3.2)*

The CCP Certification Manager ensures that personnel control procurement documents in accordance with CCP-QP-015. Procurements are planned and controlled to ensure that suppliers have QA programs consistent with the intended use of the item being procured. Procurement activities shall be planned as early as possible. At a minimum, the activities shall be planned no later than the start of those procurement activities that are required to be controlled. Procurement documents supporting waste management and packaging and transportation activities must include required specifications and acceptance criteria. Procurement documents are reviewed by appropriate organizations and engineering disciplines to ensure that they contain adequate scope of work, technical requirements, supplier QA program requirements, and provisions for acceptance. Qualified personnel verify suppliers' conformance to procurement document requirements.

5.8.2 Acceptance of Items or Services

*(Applicable Criteria: CBFO QAPD Section 2.3.7
NWP QAPD, Section 2.3.4)*

The SPM ensures that personnel control items and services purchased (including supplier evaluations and inspections) in accordance with CCP-QP-015, NWP Procedure

WP 15-PC3609, and CCP-QP-001. Methods shall be established for the acceptance of an item or service being furnished by a supplier. Prior to offering an item or service for acceptance, the supplier shall verify that the item or service complies with the procurement requirements. Documentary evidence of conformance to the procurement specifications is provided before installation or use of systems, components, items, and services, and is retained in accordance with CCP-QP-015. Acceptance of quality related systems, components, items and services will be through source verification, receipt inspection, post-installation testing, or supplier certificate of conformance as appropriate to the quality level. Supplier nonconformances will be documented, tracked, and dispositioned in accordance with CCP-QP-015. An example of conditions requiring a report of nonconformance include: The item does not conform to the original requirement even though the item can be restored to a condition such that its capability to function is unimpaired (i.e., a waiver is requested).

5.8.3 Control of Supplier Nonconformances

*(Applicable Criteria: CBFO QAPD Section 2.3.8
NWP QAPD, Section 2.3.5)*

Subcontractors perform work that directly affects the quality of characterization and certification data. CCP-QP-015, describes how personnel control subcontractor services. Subcontractors may support activities under a “staff augmentation” role or for procurement of products and services. Staff augmentation subcontractors operate under the umbrella of the QA program and are subject to applicable requirements for functions that they perform. Subcontractors who support the CCP will be informed of the need to perform operations in compliance with requirements.

If subcontractors are authorized to perform procurements of quality-affecting items and services, they are required to establish procurement controls and a QA program to ensure that purchased materials, equipment, and services conform to the procurement and QA program documents. NWP adds and maintains such subcontractors on the NWP QSL, to support the scope of work and ensure that the appropriate subcontractor QA controls are applied. The controls must include provisions, as appropriate, for source evaluation and selection, objective evidence of quality furnished by the contractor or subcontractor, inspection at the contractor or subcontractor source, and examination of products on delivery. Subcontractors are subject to periodic assessments and audits at intervals consistent with the importance, complexity, and quantity of the product or services provided to ensure compliance with

procurement requirements. Subcontractors shall submit copies of CCP-related, quality affecting documents to the CCP Certification Manager.

Items and services procured are subject to control of nonconformances. Quality Levels are determined for items and services procured for use, and quality-affecting items are evaluated for adequacy prior to use through receipt inspection, source inspection, functional testing, or other appropriate means. Items that are found deficient are documented, controlled to prevent use, evaluated, and corrective actions performed.

A combination of CCP specific and NWP general use procedures are used to exercise controls over supplier nonconformances. They include:

- CCP-QP-015, *CCP Procurement*
- CCP-QP-029, *CCP Corrective Action Management*
- CCP-QP-005, *CCP TRU Nonconforming Item Reporting and Control*
- WP 15-PC3609, *Preparation of Purchase Requisitions and Purchase Requisition Change Notices*

5.8.4 Commercial Grade Items

*(Applicable Criteria: CBFO QAPD Section 2.3.9
NWP QAPD, Section 2.3.6 and 2.3.7)*

Commercial grade items may be used when specified by design. Commercial grade items are identified in procurement documents using manufacturer or distributor catalog numbers or descriptions. Data collection and test instruments procured as commercial grade items that are intended for use in quality related applications are calibrated by qualified suppliers of calibration services prior to use. Commercial grade items are procured in accordance with CCP-QP-015, CCP-QP-026, WP 13-QA1003, *Quality Assurance Receipt/Source Inspections*, WP 15-PC3609, WP 13-QA3012, *Supplier Evaluation and Qualification*, and NWP Procurement Services Commercial Instruction C1015 *Supplier Selection*.

5.9 Inspection and Testing

*(Applicable Criteria: 10 CFR 830.122 Criterion 8
ASME NQA-1-1989, Criteria 10 & 14
DOE O 414.1 Criterion 8
CBFO QAPD Section 2.4
NWP QAPD, Section 2.4)*

Inspections required to, verify conformance of an item or activity to specified requirements are planned and executed. Characteristics to be inspected and inspection methods to be employed are specified. Inspection results are documented. Inspection for acceptance is performed by persons other than those who performed or directly supervised the work being inspected.

The status of inspection and test activities is identified either on the items or in documents traceable to the items where it is necessary to assure that required inspections and tests are performed and to assure that items which have not passed the required inspections and tests are not inadvertently installed, used, or operated. Status is maintained through indicators appropriate to the activity or item, such as physical location and tags, markings, travelers, stamps, inspection records, or other suitable means. The authority for application and removal of tags, markings, labels, and stamps is specified.

Equipment is tested, inspected, and maintained in accordance CCP-QP-016, *CCP Control of Measuring, Testing, and Data Collection Equipment*; CCP-QP-026, and CCP-QP-027, *CCP Test Control*. CCP personnel identify and control items (e.g., items with limited shelf or operating lives, materials, equipment, and samples) and ensure that only correct and accepted items are used according to CCP-QP-026. These procedures and documents address planning, parameters for evaluation, techniques to be used qualifications of inspection and test personnel, hold points, documentation, acceptance criteria, and organizational responsibilities.

Personnel routinely test and inspect items and processes and control, calibrate, and maintain equipment to ensure proper operation and data quality. Procedures identified above implement an inspection program that establishes criteria for inspection of activities affecting quality by, or for, the organization performing the activity, and to verify conformance with the requirements for accomplishing the activity. The verification is performed in accordance with written procedures, instructions, or drawings. Personnel performing the inspections are independent from the individuals performing the activity being inspected. Equipment modifications, repairs, and replacement are inspected in accordance with the original design and inspection requirements unless an approved

alternative exists. The inspection program also provides for identification and documentation of deficiencies discovered during the inspection. Measures are established to indicate, by the use of markings, tags, stamps, labels, routing cards, or other suitable means, the status of inspections and tests performed. These measures provide for the identification of items that have satisfactorily passed required inspections and tests, where necessary, to preclude inadvertent bypassing of the inspections and tests.

Quality related procured items are inspected by qualified personnel at receipt or at the source prior to shipment. These inspections may include dimensional verification, functional testing, verification of documentation or other appropriate methods.

5.9.1 Qualification of Inspection and Test Personnel

*(Applicable Criteria: CBFO QAPD Section 2.4.1
NWP QAPD, Section 2.4.1)*

Inspection and test personnel are trained and qualified in accordance with CCP-QP-002, CCP-QP-030, *CCP Written Practice for the Qualification of CCP Helium Leak Detection Personnel*, and CCP-QP-032, *CCP Written Practice for the Qualification of CCP Pressure Change Leak Testing Personnel*. Candidates for inspection and test positions are evaluated for previous education, experience, training, and testing as appropriate. Minimum qualifications are established, and personnel selected for these activities are documented to have experience or training commensurate with the scope, complexity, or special nature of the inspections or tests performed. Inspection and test personnel are indoctrinated in the technical and QA objectives, requirements, and controls, and formal or OJT is performed as appropriate. Qualifications are documented, and records maintained in the Records System.

Job performance of inspection and test personnel is evaluated at periodic intervals, and is performed through review of evidence of continued satisfactory performance or redetermination of capability. If personnel are found to not perform adequately, they are removed from that function until the required capability is demonstrated. Personnel that have not performed inspection or testing activities in their qualified area for more than a year are re-evaluated for the required capability.

5.9.2 Qualification of Nondestructive Examination Personnel

*(Applicable Criteria: CBFO QAPD Section 2.4.2.A
NWP QAPD, Section 2.4.1.2)*

Personnel performing NDE are trained and certified in accordance with CCP-QP-002. This procedure implements the requirements of the American Society of Nondestructive Testing (ASNT) Recommended Practice No. SNT-TC-1A, June 1980 edition. Training and certification of NDE personnel are documented and records maintained in the Records System.

5.9.3 Inspection Planning

*(Applicable Criteria: CBFO QAPD Section 2.4.3.1
NWP QAPD, Section 2.4.2.1)*

Inspections are planned, performed and documented in accordance with CCP-QP-026. Inspection planning includes identification of work operations to be inspected, inspection hold points, identification of characteristics to be inspected, inspection methods, acceptance criteria, sampling requirements, method of documentation of inspection results, Measuring and Testing Equipment (M&TE) to be used, and identification of statistical methods for sampling.

The types of inspections that may be performed include:

- in-process inspections and monitoring
- final inspection
- in-service inspections

Each of these types of inspections may include review of documentation, examination or verification of physical characteristics, performance of tests, or other means of verifying quality and conformance to the applicable requirements. Inspections are documented and records maintained as part of the Records System.

5.9.4 Test Requirements

*(Applicable Criteria: ASME NQA-1-1989, Criterion 11
CBFO QAPD Section 2.4.4
NWP QAPD, Section 2.4.3)*

Tests required to verify conformance of an item or computer program to specified requirements and to demonstrate satisfactory

performance for service shall be planned and executed. Characteristics to be tested and test methods to be employed are specified. Test results are documented and their conformance with acceptance criteria are evaluated.

Tests required to collect data are planned, executed, documented and evaluated. Test planning includes identification of test procedures, test requirements and acceptance limits, including required levels of precision and accuracy, identification of M&TE, test prerequisites, hold points, and test and data documentation requirements. Test results are documented and their conformance with acceptance criteria are evaluated by qualified personnel.

Testing is performed in accordance with CCP-QP-027.

5.9.5 Monitoring, Measuring, Testing, and Data Collection Equipment

*(Applicable Criteria: 10 CFR 830.122, Criterion 5
ASME NQA-1-1989, Criterion 12
CBFO QAPD Section 2.4.5
NWP QAPD, Section 2.5)*

Tools, gages, instruments, and other measuring and test equipment used for activities affecting quality are controlled and at specified periods calibrated and adjusted to maintain accuracy within necessary limits. This equipment is controlled in accordance with CCP-QP-016.

[A] Use and Control of M&TE

*(Applicable Criteria: CBFO QAPD Section 2.4.6
NWP QAPD, Section 2.5.1)*

Measuring and test equipment with the necessary range and accuracy is provided to qualified personnel for the inspection, test, and acceptance of material, parts, components, and systems. The specific controls imposed on measuring and test equipment are described in procedure CCP-QP-016, and CCP-QP-026. M&TE are labeled, and any that are found to be out of calibration are reviewed to determine the impact. Records are maintained in the Records System.

[B] Calibration

*(Applicable Criteria: CBFO QAPD Section 2.4.7
NWP QAPD, Section 2.5.1)*

Equipment accuracy is ensured by periodic calibration that is traceable to national standards or a documented equivalent basis for calibration. M&TE shall be calibrated to provide traceability of the calibration against certified equipment having known valid relationships to nationally recognized standards. If nationally recognized standards do not exist, the basis for calibration shall be documented. The specific controls imposed on measuring and test equipment are described in procedure CCP-QP-016, and CCP-QP-026.

5.10 Management Assessments

*(Applicable Criteria: 10 CFR 820.122 Criterion 9
ASME NQA-1-1989 Criterion 2
DOE O 414.1 Criterion 9
CBFO QAPD Section 3.1
NWP QAPD, Section 3.1)*

Management regularly assess the adequacy of that part of the QA program for which they are responsible to assure its effective implementation, and ensure compliance with applicable requirements. Management assessments are conducted according to CCP-QP-018, *CCP Management Assessment*. CBFO and external regulatory agencies also conduct assessments. QA tracks deficiencies identified during assessments; identifies corrective actions to resolve deficiencies according to CCP-QP-029 and CCP-QP-005, and ensures the resolutions are reported to the CCP Certification Manager and CBFO. Documentation of deficiencies identified in activities conducted at waste generating sites are also reported to the appropriate organizations at those sites, in accordance with interface documents.

Management periodically assesses the performance of its organization to determine the effectiveness of QA Program provisions that enable the organization to comply with requirements of the WIPP WAP, QAPD, WAC, and applicable procedures and documents. Managers evaluate QA Program effectiveness by focusing on the identification and resolution of both systemic and management issues and problems, and identifying strengths and weaknesses to facilitate actions to improve quality efficiency and cost-effectiveness. Management assessments may include an introspective evaluation to determine whether the entire integrated management system effectively focuses on meeting strategic goals. Management assessments are conducted as described in CCP-QP-018.

Management is responsible for the conduct of these assessments and reports at least annually on relevant findings.

5.11 Independent Assessments

*(Applicable Criteria: 10 CFR 830.122, Criterion 10
ASME NQA-1-1989, Criterion 18
DOE O 414.1, Criterion 10
CBFO QAPD Section 3.2
NWP QAPD, Section 3.2)*

Planned and scheduled audits are performed to verify compliance with all aspects of the QA program and to determine its effectiveness. These audits and surveillances are performed in accordance with written procedures or checklists by personnel who do not have direct responsibility for performing the activities being audited. Audit and surveillance results are documented and reported to and reviewed by responsible management. Follow-up actions are taken where indicated.

Documented independent assessments (audits and surveillances) are used to measure item service and quality, process adequacy and effectiveness, and to promote improvement.

5.11.1 Surveillances

*(Applicable Criteria: CBFO QAPD Section 3.2.1
NWP QAPD, Section 3.2)*

Surveillances are conducted primarily to monitor work in progress and to follow up on corrective actions. Surveillance results are reported and monitored similar to other assessment activities. At each host location, surveillances are scheduled as early in the project as practical. Surveillances are performed in accordance with CCP-QP-021, *CCP Surveillance Program*.

5.11.2 Audits

*(Applicable Criteria: CBFO QAPD Section 3.2.2
NWP QAPD, Section 3.2)*

Internal and external audits are planned and scheduled throughout the life of the CCP and are conducted by qualified personnel.

The CCP is subject to CBFO certification audits. A CBFO audit of is conducted before any waste characterized by the CCP is shipped to the WIPP and annually thereafter. In addition, the CBFO may conduct audits on a random basis. These audits are scheduled

through the CBFO QA Manager who coordinates the plans and schedule through the CCP Certification Manager.

5.12 Sample Control Requirements

*(Applicable Criteria: CBFO QAPD Section 4.1
NWP QAPD, Section 4.1)*

This section identifies the requirements for controlling samples of waste and environmental media. Control measures stated in site specific container management procedures (see Appendix 4, Table B-1) and analysis procedures include provisions for the identification, handling, storage and shipping, archiving, and identification of nonconforming drums.

Samples/drums are controlled and identified in a manner consistent with their intended use in accordance with container management procedures specific to each site (See Appendix 4, Table B-1).

5.12.1 Sample Identification

*(Applicable Criteria: CBFO QAPD Section 4.2
NWP QAPD, Section 2)*

[A] Waste containers used as samples are labeled and tracked in accordance with site specific container management procedures. Each waste container used as a sample is checked for physical marking that:

[A.1] Are applied using materials and methods that provide a clear and legible identification.

[A.2] Are not obliterated or hidden on the surface.

[B] If samples/waste containers used as samples are stored, they are controlled in accordance with container management procedures and the method requirements for characterization.

5.12.2 Handling, Storing, and Shipping Samples

*(Applicable Criteria: CBFO QAPD Section 4.3
NWP QAPD, Section 4.3)*

[A] Handling, storing, cleaning, packaging, and shipping waste containers used as samples is conducted in accordance with

established work and inspection implementing procedures, CCP-QP-023.

5.12.3 Disposition of Nonconforming Samples

*(Applicable Criteria: CBFO QAPD Section 4.4
NWP QAPD, Section 4.4)*

- [A] Waste containers used as samples that do not conform to requirements are reported on an NCR in accordance with CCP-QP-005.
- [B] The disposition of waste containers used as samples is identified and documented in accordance with CCP-QP-005.

5.13 Data Documentation, Control, and Validation

*(Applicable Criteria: CBFO QAPD Section 5.3
NWP QAPD, Section 4.6 and 4.7)*

5.13.1 Data are controlled to prevent loss and ensure integrity, security and freedom from error. Erroneous, rejected or superseded data are controlled to prevent use. Data uncertainty levels are determined prior to use. Data reduction methods are prescribed in technical procedures to allow validation of the reduction process. Data verification and validation is performed to assure accuracy, completeness and traceability in accordance with QA and technical procedures. These procedures include CCP-TP-001 and CCP-TP-002.

5.13.2 Data validation is a systematic process used to review data to ensure that the required data quality characteristics have been obtained. Results of the review may require that qualifiers be placed on the use of the data.

5.13.3 Validation methods shall be planned and documented. The documentation shall include the acceptance criteria used to determine if the data are valid.

5.13.4 All applicable data collected shall be validated. Validation shall include the following:

- [A] The relevant documentation is reviewed to evaluate the technical adequacy, the suitability for the intended use, and the adequacy of the QA record.
- [B] The results of the data review shall be documented.

[C] The reviewer shall be independent of the collection activities.

5.13.5 Data validation shall be controlled to permit independent reproducibility by another qualified individual.

5.13.6 Data considered as established fact by the scientific and engineering community, such as engineering handbook data, critical tables, etc., do not require validation.

5.14 Software

*(Applicable Criteria: ASME NQA-2a-1990 Part 2.7
CBFO QAPD Section 6
NWP QAPD, Section 6)*

Computer software and hardware/software configurations used in activities are developed, documented, verified, validated, and tested prior to use in compliance with requirements contained in the QAPD, QAPjP, and NQA-1, Subpart 2.7, *Quality Assurance Requirements of Computer Software for Nuclear Facility Applications* (ASME 1989). CCP-QP-022 describes the processes for computer software development, validation, and verification.

Software used are identified and controlled through inventory and categorization, and configuration management is maintained. CCP-QP-022 provides the controls for configuration management; software procurement and development; software life-cycle management including installation, testing, verification and validation, operation, and retirement; access controls; and required documentation. Software problems are identified and reported, and changes to software are controlled.

5.15 Performance Demonstration Program (PDP)

The CCP participates in the PDP. PDP samples are processed according to procedures applicable to the specific testing and CCP-TP-058, *CCP NDA Performance Demonstration Plan*.

6.0 REFERENCES

NOTE

The current revision of these reference documents is applicable. The Internet links are provided for informational purposes only and may change.

1. Public Law 96-164, 93 Stat. 1259. National Security and Military Applications of Nuclear Energy Authorization Act of 1980, Section 213(a).
(http://thomas.loc.gov/cgi-bin/bdquery/z?d096:SN006_73:TOM:/bss/d096query.htm)
2. Public Law 102-579, 106 Stat. 4777, 1992 (as amended by Public Law 104-201, 1996). Waste Isolation Pilot Plant Land Withdrawal Act.
(<http://www.wipp.energy.gov/library/CRA/BaselineTool/Documents/Regulatory%20Tools/10%20WIPPLWA1996.pdf>)
3. 42 U.S.C. 6901 et seq. Resource Conservation and Recovery Act (RCRA) of 1976. (<http://www.epa.gov/epawaste/inforesources/online/index.htm>)
4. U.S. Department of Energy. *Waste Isolation Pilot Plant Documented Safety Analysis*. DOE/WIPP-07-3372. Carlsbad, New Mexico, Waste Isolation Pilot Plant, U.S. Department of Energy.
(http://www.wipp.energy.gov/library/DSA/DOE_WIPP_07_3372_Rev_3_DSA.pdf)
- 5a. U.S. Nuclear Regulatory Commission. *TRUPACT-II Certificate of Compliance*. NRC Docket No. 71-9218. Washington, D.C., Office of Regulatory Procedures, U.S. Nuclear Regulatory Commission.
(http://www.wipp.energy.gov/Documents_Transportation.htm)
- 5b. U.S. Nuclear Regulatory Commission. *TRUPACT-III Certificate of Compliance*. NRC Docket No. 71-9305. Washington, D.C., Office of Regulatory Procedures, U.S. Nuclear Regulatory Commission.
(http://www.wipp.energy.gov/Documents_Transportation.htm)
6. U.S. Nuclear Regulatory Commission. *HalfPACT Certificate of Compliance*. NRC Docket No. 71-9279. Washington, D.C., Office of Regulatory Procedures, U.S. Nuclear Regulatory Commission.
(http://www.wipp.energy.gov/Documents_Transportation.htm)
7. U.S. Nuclear Regulatory Commission. *RH-TRU 72-B Certificate of Compliance*. NRC-Docket-No.71-9212. Office of Regulatory Procedures. U.S. Nuclear Regulatory Commission. Washington, D.C.
(http://www.wipp.energy.gov/Documents_Transportation.htm)

8. U.S. Nuclear Regulatory Commission. *10-160B Certificate of Compliance* NRC-Docket-No.71-9204. Office of Regulatory Procedures. U.S. Nuclear Regulatory Commission. Washington, D.C.
(http://wipp.energy.gov/Documents_Transportation.htm)
9. New Mexico Environment Department. *Waste Isolation Pilot Plant Hazardous Waste Facility Permit*. NM4890139088-TSDF, Santa Fe, New Mexico.
(<http://www.nmenv.state.nm.us/wipp/pdfpermit.html>)
10. 75 FR70584. Criteria for the Certification and Recertification of the Waste Isolation Pilot Plant's Compliance with the Disposal Regulations: Recertification Decision: EPA Final Rule. Federal Register 75:70584-70595, November 18, 2010, Radiation Protection Division, Washington, D.C.
(<http://www.gpo.gov/fdsys/pkg/FR-2010-11-18/pdf/2010-28806.pdf>)
11. U.S. Department of Energy. *Waste Isolation Pilot Plant Initial Report for PCB Disposal Authorization*. DOE/WIPP 02-3196. Carlsbad, New Mexico, Carlsbad Field Office, U.S. Department of Energy.
(http://www.wipp.energy.gov/rcradox/final/02-3196_PCB_Initial_3-19-02_4-29-02.pdf)
12. U.S. Environmental Protection Agency, Letter and enclosed *Conditions of Approval* from Carl E. Edlund (Director, Multimedia Planning and Permitting Division, EPA) to Edward Ziemanski (Acting Manager, Carlsbad Field Office, DOE), dated January 5, 2011, granting approval for WIPP to dispose of TRU and TRU-mixed wastes containing PCBs.
(http://www.wipp.energy.gov/rcradox/final/EPA_Letter_to_DOE_2011-0105.pdf)
13. Title 40 CFR Part 761, *Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions*. Code of Federal Regulations, Washington, D.C., Office of Federal Register, National Archives and Records Administration.
(<http://www.gpoaccess.gov/cfr/index.html>)
14. 69 FR 39456. *Revision to the Record of Decision for the Department of Energy's Waste Isolation Pilot Plant Disposal Phase*. Federal Register 69: 39456-39459, June 30, 2004, Department of Energy, Washington, D.C.
(<http://www.em.doe.gov/pdfs/92604PCB%20ROD%20Fed%20Reg%20063004%20p39456-9.pdf>)
15. WIPP National Environmental Policy Act Database, June 19, 2007, Carlsbad, New Mexico, Waste Isolation Pilot Plant, U.S. Department of Energy.
16. U.S. Environmental Protection Agency. Letter and Enclosures from Frank Marcinowski (Director, Radiation Protection Division), to R. Paul Detwiler (Acting Manager, Carlsbad Field Office), dated March 26, 2004.
(<http://www.wipp.energy.gov/rcradox/RH-EPAFinal3-26-04.pdf>)

17. U.S. Department of Energy. *Remote-Handled TRU Waste Characterization Program Implementation Plan*. DOE/WIPP-02-3214. Carlsbad, New Mexico. Carlsbad Field Office. U.S. Department of Energy.
(http://www.wipp.energy.gov/rcradox/DOE-WIPP_02-3214_Rev_3.pdf)
18. U.S. Department of Energy. *Quality Assurance Program Document*. DOE/CBFO-94-1012. Carlsbad, New Mexico, Carlsbad Field Office, U.S. Department of Energy.
(<http://www.wipp.energy.gov/library/gapd/gapd.pdf>)
19. DOE (U.S. Department of Energy), 1980. *Final Environmental Impact Statement for the Waste Isolation Pilot Plant*, DOE/EIS-0026, October, Washington, D.C.
20. DOE (U.S. Department of Energy), 1990. *Final Supplemental Environmental Impact Statement for the Waste Isolation Pilot Plant*, DOE/EIS-0026-FS, January, Washington, D.C.
21. DOE (U.S. Department of Energy), 1997. *Waste Isolation Pilot Plant Disposal Phase Final Supplemental Environmental Impact Statement*, DOE/EIS-0026-S-2, September, Washington, D.C.
(<http://www.wipp.energy.gov/library/seis/summary-1o4.pdf>)
22. U.S. Department of Energy. *Waste Data System User's Manual*, DOE/WIPP-09-3427. Carlsbad, New Mexico, Carlsbad Field Office, U.S. Department of Energy. (http://www.wipp.energy.gov/Documents_NTP.htm)
- 23a. U.S. Nuclear Regulatory Commission. *Contact-Handled Transuranic Waste Authorized Methods for Payload Control (CH-TRAMPAC)*. Washington, D.C., Office of Regulatory Procedures, U.S. Nuclear Regulatory Commission.
- 23b. U.S. Nuclear Regulatory Commission. *TRUPACT-III Transuranic Waste Authorized Methods for Payload Control (TRUPACT-III TRAMPAC)*. Washington, D.C., Office of Regulatory Procedures, U.S. Nuclear Regulatory Commission.
24. Title 10 CFR Part 71. *"Packaging and Transportation of Radioactive Material."* Code of Federal Regulations. Washington, D.C. Office of the Federal Register. National Archives and Records Administration.
(<http://www.gpoaccess.gov/cfr/Index.html>)
25. *New Mexico Hazardous Waste Act*, NMSA 1978, 74-4-1 through 74-4-14
(<http://www.nmonesource.com/nmnxtadmin/NMPublic.aspx>)

26. Title 40 CFR Part 194, *Criteria for the Certification and Re-certification of the Waste Isolation Pilot Plant's Compliance with the 40 CFR Part 191 Disposal Regulations*. Code of Federal Regulations, Washington, D.C., Office of the Federal Register, National Archives and Records Administration.
(<http://www.gpoaccess.gov/cfr/index.html>)
27. 42 U.S.C. 2011 et seq. *Atomic Energy Act (AEA) of 1954*.
(<http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr0980/v1/sr0980v1.pdf>)
28. 42 U.S.C 10141. *Nuclear Waste Policy Act of 1982*.
(<http://epw.senate.gov/nwpa82.pdf>)
29. U.S. Department of Energy Standard Radiological Control, DOE-STD-1098-2008, Table 2-2 and Chapter 4, Part 2, Sec. 423.
(<http://www.hss.energy.gov/healthsafety/wshp/radiation/doe-std-1098.pdf>)
30. Title 10 CFR Part 835. *Occupational Radiation Protection*. Code of Federal Regulations, Washington, D.C., Office of the Federal Register, National Archives and Records Administration.
(<http://www.gpoaccess.gov/cfr/index.html>)
31. American National Standards Institute. ANSI/AIM BC1-1995, *Uniform Symbology Specification* - Code 39. American National Standards Institute, Inc., 1430 Broadway, New York, NY 10018
32. U.S. Department of Energy. *Radioactive Waste Management*, DOE Order 435.1, Implementation Guide, Chapter III, Section III.L, page 103.
(<https://www.directives.doe.gov/pdfs/doe/doetext/neword/435/g4351-1ch3.pdf>)
33. Title 40 CFR Part 262, *Standards Applicable to Generators of Hazardous Waste*. Code of Federal Regulations, Washington, D.C., Office of the Federal Register, National Archives and Records Administration.
(<http://www.gpoaccess.gov/cfr/index.html>)
34. Title 40 CFR, Part 191, *Environmental Radiation Protection for Management and Disposal of Spent Nuclear Fuel, High-Level, and Transuranic Radioactive Wastes*. Code of Federal Regulations, Washington, D.C., Office of the Federal Register, National Archives and Records Administration.
(<http://www.gpoaccess.gov/cfr/index.html>)
35. U.S. Department of Energy. *Title 40 CFR Part 191, Compliance Recertification Application for the Waste Isolation Pilot Plant*, DOE/WIPP 2004-3231, 2009, Carlsbad, New Mexico.
(<http://www.wipp.energy.gov/library/CRA/BaselineTool/Index.htm>)

36. Title 49 CFR, § 172.203. *Additional Description Requirements*. Code of Federal Regulations, Washington, D.C., Office of the Federal Register, National Archives and Records Administration. (<http://www.gpoaccess.gov/cfr/index.html>)
37. Title 49 CFR § 173.433 (g). *Shipping Papers and Labeling*. Code of Federal Regulations, Washington, D.C., Office of the Federal Register, National Archives and Records Administration. (<http://www.gpoaccess.gov/cfr/index.html>)
38. *Safety Analysis Report for Model 10-160B Type B Radwaste Shipping Cask*, NRC-Docket-No.71-9204. Office of Regulatory Procedures. U.S. Nuclear Regulatory Commission. Washington, D.C.
39. Nuclear Waste Partnership (NWP). *RH-TRU 72-B Cask Removable Lid Canister Handling and Operation Manual*. WP 08-PT.07. Carlsbad, New Mexico. Waste Isolation Pilot Plant, U.S. Department of Energy
40. Nuclear Waste Partnership (NWP). *RH-TRU 72-B Cask Welded Lid Canister Handling and Operation Manual*. WP 08-PT.12. Carlsbad, New Mexico. Waste Isolation Pilot Plant, U.S. Department of Energy
41. U.S. Nuclear Regulatory Commission. *Remote-Handled Transuranic Waste Authorized Methods for Payload Control (RH-TRAMPAC)*. Washington, D.C., Office of Regulatory Procedures, U.S. Nuclear Regulatory Commission.
42. U.S. Environmental Protection Agency. *Guidance for the Data Quality Objectives Process*. EPA-QA/G-4, Washington, DC, Quality Assurance Management Staff, U.S. Environmental Protection Agency.
(<http://www.epa.gov/osw/hazard/correctiveaction/resources/guidance/qa/epaqag4.pdf>)
43. U.S. Department of Energy. *Packaging and Transportation Safety*. DOE Order 460.1C. Washington, D.C.
(<http://www.directives.doe.gov/pdfs/doe/doetext/neword/460/o4601a.html>)
44. U.S. Department of Energy. *Departmental Materials Transportation and Packaging Management*. DOE Order 460.2 A. Washington, D.C.
(<http://www.directives.doe.gov/pdfs/doe/doetext/neword/460/o4602c1.html>)
45. U.S. Department of Energy. *CH Packaging Program Guidance*, DOE/WIPP-02-3183. Carlsbad, New Mexico, Waste Isolation Pilot Plant, U.S. Department of Energy.
46. U.S. Department of Energy. *RH Packaging Program Guidance*. DOE/WIPP-02-3283. Carlsbad, New Mexico. Waste Isolation Pilot Plant. U.S. Department of Energy.

47. U.S. Department of Energy/Waste Isolation Pilot Plant (DOE/WIPP) 02-3122, *Transuranic Waste Acceptance Criteria for the Waste Isolation Pilot Plant*.
48. U.S. Department of Energy. *CBFO Approved Filter Vents*. DOE/WIPP-11-3384. Carlsbad, New Mexico, Waste Isolation Pilot Plant, U.S. Department of Energy.

Appendix 1 – Radioassay Requirements for Contact-Handled Transuranic Waste

A.1 Introduction

Radioassay techniques are used to determine the radionuclide content of waste. Radioassay methods include both nondestructive and destructive techniques. The term "radioassay" includes all types of assay techniques. NDA refers only to nonintrusive assay techniques, whereas radiochemistry (RC) is used to refer to destructive assay techniques. This appendix is intended to apply to NDA activities conducted within the WIPP CCP.

Common NDA techniques rely on detection of gamma rays, neutrons, or heat generated by the waste. NDA is performed on a waste container basis.

RC will not be performed by CCP. If plans change, then RC will be performed in compliance with the requirements of the current WAC, and this Plan will be revised.

The DOE is required to collect radiological characterization data to:

- Track the WIPP radionuclide inventory, by isotopic activity and mass, for those radionuclides listed in Section 3.3.1,
- Demonstrate that each payload container disposed of at the WIPP contains TRU waste as specified in Section 3.3.3, and
- Verify that applicable transportation and facility limits on individual payload containers and assemblies for FGE, PE-Ci, and decay heat are not exceeded, as specified in Section 3.3.2, 3.3.4 and 3.3.6.

The radioassay process quantifies at least one of the more prevalent radionuclides known to be present in the waste. The remaining listed radionuclides present in the waste in significant quantities will be identified by direct measurement of isotopic ratios as discussed in Section A.2. The isotopic ratios are then used to quantify radionuclides based on the assay value.

The requisite data on isotopic ratios and quantities will be derived from AK (see Section A.2), radioassay or both using CBFO approved NDA or RC techniques, instruments and procedures. Each site must technically justify that the AK and/or radioassay techniques, instruments and procedures used:

- Are appropriate for the specific waste stream and waste content code descriptions being assayed, and
- Will result in unbiased values for the cumulative activity and mass of the WIPP radionuclide inventory.

Appendix 1 – Radioassay Requirements for Contact-Handled Transuranic Waste
(Continued)

Existing radioassay data collected prior to the implementation of a QA program pursuant to 40 CFR §194.22(a)(1) may only be qualified in accordance with an alternate methodology that is approved by CBFO and employs one or more of the following methods:

- Peer review in accordance with NUREG-1297 (Reference A1),
- Corroborating data,
- Confirmatory testing (i.e., testing made on a representative sub-population of payload containers within a waste stream), or
- Demonstrating the equivalence of an alternative QA program (as described in Reference A2, Section 5.4).

Proposals for alternative approaches to identification and quantification of radioisotopes (e.g., quantification of isotopic ratio AK on a waste stream basis) must be submitted to CBFO for review and approval. CBFO will report such proposals to the EPA for consideration prior to issuing approval.

Controlled changes to radioassay (NDA or RC) related plans or procedures are managed through the document control process described in CCP-PO-001, *CCP Transuranic Waste Characterization Quality Assurance Project Plan*. The CCP Certification Manager and QA shall review all such changes and report to the CBFO those changes that could impact compliance with the criteria in this document. The CCP Certification Manager shall ensure that site approved changes to radioassay related plans or procedures affecting either the performance criteria or data quality of certified systems/processes are not used in the collection of waste certification data prior to CBFO's review and approval. Related testing, calibration, and training performed in accordance with these site-approved changes, however, are not precluded from being conducted prior to CBFO's review and approval. (Memorandum from CBFO to Distribution, CBFO:NTP:RMK:VW:02-2734: UFC:5822, July 29, 2002.)

The CCP program will establish or confirm isotopic ratios by direct measurements and these ratios will be used in conjunction with measured or AK data to calculate WIPP-reportable values.

Appendix 1 – Radioassay Requirements for Contact-Handled Transuranic Waste
(Continued)

A.2 Radionuclide Isotopic Ratios

Establishing isotopic ratios for use in quantifying radionuclides is performed by direct measurement of the containers using WIPP-certified systems. Sites may opt to qualify AK as permitted by 40 CFR §194.22(b) by performing confirmatory testing using WIPP-certified radioassay systems. When a site performs direct measurements of isotopic ratios, it is expected that all containers in the waste stream will be measured, with the understanding that, in some cases, valid data may not be obtainable for given containers for technical reasons (e.g., lack of sufficient signal or poor counting statistics). All such instances will be documented and appropriately dispositioned by the measurement facility. For those few waste containers for which direct measurement does not yield useable isotopic ratio information, AK may be used. The assay programs will establish or confirm isotopic ratios by direct measurement and these ratios will be used in conjunction with the reported data to calculate WIPP-reportable values.

A.2.1 Methods for Confirmation of Isotopic Ratio AK

As a minimum, to confirm existing AK data, it is necessary to compare ratios of the two most prevalent radionuclides in the isotopic mix. For weapons and reactor grade plutonium, these are typically ^{239}Pu and ^{240}Pu . For heat source waste, the predominant radionuclides are typically ^{238}Pu and ^{239}Pu . Measured isotopic ratios for ^{241}Am may confirm existing AK by waste stream.

However, due to the fluctuation of ^{241}Am in certain waste streams, it may become necessary to measure ^{239}Pu to ^{241}Am isotopic ratios on all containers in that waste stream.

^{241}Am is the daughter of ^{241}Pu , which decays with a half-life of about 14 years. If the time since the chemical separation of the plutonium is known, the quantity of measured ^{241}Am can be used to calculate the quantity of ^{241}Pu . This assumes there was no ^{241}Am in the waste just after the chemical separation and that no ^{241}Am was added to or removed from the waste during the time since the separation. Since ^{241}Am is an indirect measurement of ^{241}Pu , it could be compared (by ratio) to any plutonium isotope (^{239}Pu or ^{240}Pu) associated with weapons and reactor grade plutonium.

For weapons grade and reactor grade waste, isotopic ratio values for ^{238}Pu can be assumed to be valid in AK data if the values for ^{239}Pu and ^{240}Pu have been confirmed. Because ^{242}Pu cannot be measured using NDA methods, the contribution of ^{242}Pu isotopic ratio is calculated by correlation techniques.

Appendix 1 – Radioassay Requirements for Contact-Handled Transuranic Waste
(Continued)

For some of the generator sites that were involved primarily in weapons production, the fissile isotopes ^{235}U and ^{233}U and the fissionable isotope ^{238}U may not have been measured when the transuranic waste was originally assayed (i.e., using non-WIPP-certified systems), primarily because the plutonium isotopes were the radionuclides of interest to the generator site. However, other forms of AK may be available. If so, then the AK can be confirmed by data generated on a WIPP-certified system. If valid AK does not exist, then the data generated on a WIPP-certified system can only be used to detect or calculate ^{238}U , ^{235}U , and ^{233}U or to confirm their absence. Because ^{234}U cannot be measured using NDA methods, the isotopic ratios for ^{234}U may be calculated from the ^{235}U enrichment. Values or lack thereof, for ^{137}Cs can be confirmed by the data generated on a WIPP-certified system. This is typically done by measuring ^{137}Cs directly, or by comparing the NDA measured ^{241}Am 662 kiloelectron volt (keV) peak to the other ^{241}Am peaks (e.g., the 125 keV or 721 keV peaks) to determine if the 662 keV peak's intensity is consistent with the expected ^{241}Am intensity. A disproportionate response for the 662 keV peak relative to the other ^{241}Am peaks may indicate the presence of ^{137}Cs . ^{90}Sr may be calculated from the value for ^{137}Cs and AK. If detected, a waste container's concentration of ^{137}Cs can be used to derive a value of ^{90}Sr through the application of the appropriate scaling factor(s). All scaling factors used will be technically sound and based on known, documented relationships or correlations. The data report for the waste containers for which the ^{90}Sr value is derived in this manner shall reflect the use of a scaling factor(s) and provide sufficient documentation to enable its independent calculation. Finally, the gamma spectra must be carefully examined for significant presence of other radionuclides to ensure compliance with transportation requirements. Data obtained for radionuclides other than the WIPP-tracked radionuclides presented above are required to address confounding isotope issues (i.e., masking) with regard to NDA. When RC is used for confirmation radioassay instead of NDA, less reliance on calculated isotopics is required.

CCP will technically justify that the techniques used to confirm the absence or the ratio of non-measurable radionuclides are valid for the particular radioassay method used to confirm AK.

Appendix 1 – Radioassay Requirements for Contact-Handled Transuranic Waste (Continued)

A.2.2 Acceptable Knowledge (AK) Documentation

The use of AK information concerning the radiological composition of a waste stream will be documented either in the AK Summary Report for the waste characterization of the waste stream or in another controlled document approved by the SPM. Should this information be contained in AK package(s) prepared to meet other general waste characterization requirements, it need not be duplicated in other controlled documents that address the radiological properties of the waste stream; however, all relevant information must be included in the AK record. CCP uses procedure CCP-TP-005, *CCP Acceptable Knowledge Documentation*, to compile, review, evaluate, confirm, and report AK documentation.

The following discussion is included for the sake of completeness.

A.2.2.1 Required Elements

This section identifies the required radiological information that each TRU waste site or measurement facility must maintain for a waste stream. A TRU waste generator site or waste characterization facility may use AK to delineate the distribution of the 10 WIPP-tracked radioisotopes within a TRU waste stream and the presence or absence of isotopes. The type and quantity of supporting documentation may vary by waste stream and shall be compiled in a written record that shall include a summary identifying all sources of information used to delineate the waste stream's isotopic distribution. The basis and rationale for the delineation shall be clearly summarized in an AK report and traceable to referenced documents. Assumptions made in this delineation shall be identified. The following information shall be included as part of the AK written record:

- Map of the site with the areas and facilities involved in TRU mixed waste generation, treatment, and storage identified
- Facility mission description as related to radionuclide-bearing materials and their management, e.g., routine weapons production, fuel research and development, and experimental processes
- Description of the specific site locations (such as the area or building) and operations relative to the isotopic composition of the TRU wastes they generated, e.g., plutonium recovery, weapons fabrication, pyrochemical operations and waste incineration

Appendix 1 – Radioassay Requirements for Contact-Handled Transuranic Waste
(Continued)

- Waste identification or categorization schemes used at the facility relevant to the waste material's isotopic distribution, e.g., the use of codes that correlate to a specific isotopic distribution, and a description of the isotopic composition of each waste stream
- Information regarding the waste's physical and chemical composition that could affect the isotopic distribution, e.g., processes used to remove ingrown ^{241}Am or alter its expected contribution based solely on radioactive decay kinetics
- Statement of all numerical adjustments applied to derive the material's isotopic distribution, e.g., scaling factors, decay/ingrowth corrections and secular equilibrium considerations
- Specification of the isotopic ratios for the ten WIPP-tracked radionuclides (^{241}Am , ^{238}Pu , ^{239}Pu , ^{240}Pu , ^{242}Pu , ^{233}U , ^{234}U , ^{238}U , ^{90}Sr , and ^{137}Cs) and, if applicable, the radionuclides that comprise 95 percent of the radiological hazard on a waste stream, waste stream subpopulation, or container basis

A.2.2.2 Supplemental AK Information

Each generator site or measurement facility shall obtain supplemental AK information, dependent on availability. The amount and type of this information cannot be mandated, but sites shall collect information as appropriate to support their contention regarding the waste's isotopic distribution. This information will be used to compile the waste's AK written record. Supplemental AK documentation that may be used includes, but is not limited to, information from the following sources:

- Safeguards & Security, Materials Control & Accountability, and other nuclear materials control systems or programs and the data they generated
- Reports of nuclear safety or criticality, or accidents/excursions involving the use of special nuclear material (SNM) or nuclear material
- Waste packaging, waste disposal, building or nuclear material management area (NMMA) logs or inventory records, and site databases that provide information on SNM or nuclear materials
- Test plans, research project reports, or laboratory notebooks that describe the radionuclide content of materials used in experiments
- Information from site personnel (e.g., documented interviews)
- Historical analytical data relevant to the isotopic distribution of the waste stream

Appendix 1 – Radioassay Requirements for Contact-Handled Transuranic Waste
(Continued)

A.2.2.3 Discrepancy Resolution

If there is a discrepancy between AK information related to isotopic ratios or composition, the site will evaluate the sources of the discrepancy to determine if the discrepant information is credible. Information that is not credible or information that is limited in its applicability to WIPP characterization will be identified as such and the reasons for dismissing it will be justified in writing. Limitations concerning the information will be documented in the AK record and summarized in the AK Summary Report. In the event that the discrepancy cannot be resolved, the site will perform direct measurements for the impacted population of containers.

If discrepancies result in a change to the original determinations, the AK summary will be updated in accordance with procedure CCP-TP-005.

A.3 Data Quality Objectives (DQOs)

The DQOs for WIPP certifiable radiological characterization data are established in Section 3.3 of this Plan. They are summarized below in Table A-1, Data Quality Objectives (DQOs) for Radioassay, as they apply to individual payload containers.

Table A-1. Data Quality Objectives (DQOs) for Radioassay

Requirement	DQO	Confidence ^a
TRU α -activity concentration > 100 nCi/g ^b	A > LLD	N/A
Fissile mass \leq FGE limit	$FGE + 2\sigma_{TMU}(FGE) \leq FGE$ limit	97.5%
Decay heat (DH) \leq CH-TRAMPAC limit	$DH + 1\sigma_{TMU}(DH) \leq L_{CH-TRAMPAC}$ ^c	84%

^aConfidence means the statistical level of confidence that the limit is exceeded or not exceeded depending on the requirements of the individual data quality objectives (DQOs). The confidence is derived from the specified DQOs which assume contributions to TMU are normally distributed.

^bTRU waste determinations shall be in accordance with the Policy for the Management of TRU Alpha Activity Concentration when overpacking waste containers (see Appendix 8).

^cTRAMPAC includes both the CH-TRAMPAC and the TRUPACT-III TRAMPAC.

Appendix 1 – Radioassay Requirements for Contact-Handled Transuranic Waste
(Continued)

There are no stipulated DQOs for PE-Ci or individual isotope activities (except as they impact the requirements listed above). However, at a minimum, radioassay programs must be capable of identifying, measuring, and reporting the presence or absence of:

- the ten radionuclides identified in Section 3.3.1 for tracking of the WIPP radionuclide inventory (see Section A.2.1),
- ^{235}U , in order to calculate FGE, as required in Section 3.3.2 for compliance with transportation requirements, and
- other radionuclides whose presence contribute to 95 percent of the radioactive hazard, as specified in Section 3.3.1, for compliance with transportation requirements.

In support of the above requirements, each site must evaluate, document and technically justify the following determinations:

Lower Limit of Detection (LLD): The LLD for each radioassay system must be determined. Instruments performing TRU/low-level waste discrimination measurements must have an LLD of 100 nCi/g or less. Site specific environmental background and container specific interferences must be factored into LLD determinations. The LLD is that level of radioactivity which, if present, yields a measured value greater than the critical level with a 95 percent probability, where the critical level is defined as that value which measurements of the background will exceed with 5 percent probability. Because the LLD is a measurement-based parameter, it is not feasible to calculate LLDs for radionuclides that are not determined primarily by measurement, e.g., ^{90}Sr . In such cases, the site shall derive the equivalent of an LLD, i.e., a reporting threshold for a radionuclide(s), when it is technically justified. This value may be based on decay kinetics, scaling factors or other scientifically based relationships and must be adequately documented in site records. For purposes of reporting radionuclide data in the WWIS/WDS, this value will be the equivalent of an LLD. References A3 and A4 provide information in developing the LLD.

Total Measurement Uncertainty (TMU): The method used to calculate the TMU for the quantities in Table A-1 must be documented and technically justified for each CBFO certified radioassay system. Compliance with this requirement will be evaluated in reviews of the TMU documentation package for each assay system by CBFO. General guidance for determining the TMU is provided in References A5 and A6.

Appendix 1 – Radioassay Requirements for Contact-Handled Transuranic Waste
(Continued)

Calibration Procedures and Frequencies: Each radioassay measurement system shall be calibrated before initial use. During calibration or re-calibration, system correction factors shall be established and algorithms adjusted such that the value of percent recovery (%R) is set equal to 100 percent; i.e., the system is calibrated to 100%R. The range of applicability of system calibrations must be specified in site procedures. The matrix/source surrogate waste combination(s) used for calibration shall be representative of the:

- activity range(s) or gram loading(s), and
- relevant waste matrix characteristics (e.g., densities, moderator content, container size) planned for measurement by the system.

Calibration(s) shall be performed in accordance with consensus standards, when such standards exist. If consensus standards are not used, full documentation of the calibration technique must be provided to and approved by CBFO prior to performing WIPP-related assays. Primary calibration standards shall be obtained from suppliers maintaining a nationally accredited measurement program. When primary standards are not available, the standards used shall be correlated with primary standards obtained from a nationally accredited measurement program. For calorimetry, calibration shall be performed in accordance with Reference A9.

Calibration Verification: Notwithstanding the need to calibrate individual components for replacement, changes or adjustments (e.g., energy calibration of a detector), verification of the radioassay measurement system's calibration shall be performed after any one of the following occurs:

- major system repairs and/or modifications
- replacement of the measurement system's components, e.g., detector, neutron generator or supporting electronic components that have the capacity to affect data
- significant changes to the system's software
- relocation of the system

Appendix 1 – Radioassay Requirements for Contact-Handled Transuranic Waste
(Continued)

Calibration verification shall consist of demonstrating that the system is within the range of acceptable operation. Secondary standards can be used for the calibration verification if their performance has been correlated with the calibration standard. If a verification of the measurement system’s calibration or other test demonstrates that the system’s response has significantly changed, a re-calibration of the system shall be performed.

Calibration Confirmation: In order to confirm that the calibration of the NDA system was correctly established, the accuracy and precision of the system are determined after each calibration or re-calibration by performing replicate measurements of a non-interfering matrix. Calibration confirmation replicate measurements shall be performed on containers of the same nominal size as those in which actual waste is assayed and according to approved waste assay procedures. The number of replicate measurements to be performed shall be documented and technically justified. The replicate measurements shall be performed using nationally recognized standards, or certified standards derived from nationally recognized standards that span the range of use. The standards used to calculate accuracy shall not be the same as those used for the system calibration. Accuracy is reported as percent recovery (%R). The applicable range for accuracy shall not exceed ± 30 percent on a non-interfering matrix. Precision is reported as percent relative standard deviation (%RSD). The %RSD shall not exceed the values listed in Table A-2, Upper Limits for %RSD vs. Number of Replicates, for the corresponding number of replicate measurements in a non-interfering matrix.

Table A-2. Upper Limits for %RSD vs. Number of Replicates

Number of Replicates	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Max %RSD	1.8	6.6	10.0	12.3	14.0	15.2	16.2	17.1	17.7	18.3	18.8	19.3	19.7	20.0

^a The values listed are derived from the measured standard deviation of the replicate measurements using $\frac{s}{\mu} \cdot 100\% < \sqrt{\frac{(0.292) \cdot \chi^2_{0.05, n-1}}{n-1}} \cdot 100\%$ where s is the measured standard deviation, n is the number of replicates, Φ is the true value, $\chi^2_{0.05, n-1}$ is the critical value for the upper 5 percent tail of a one-sided chi-squared distribution with n-1 degrees of freedom, and 0.292 corresponds to a 95 percent upper confidence bound on the true system precision limit of 29.2 percent.

Measurement facilities may develop alternate limits for accuracy and precision subject to approval by CBFO prior to certification of waste.

Appendix 1 – Radioassay Requirements for Contact-Handled Transuranic Waste
(Continued)

The CCP NDA standard operating procedures (Table A-2.1) demonstrate and justify that the radioassay techniques used are appropriate for specific waste streams.

Table A-2.1. NDA Procedures

Procedure Title	Procedure Number
CCP Waste Assay Gamma Spectrometer (WAGS) and SWEPP Gamma-Ray Spectrometer (SGRS) Calibration Procedure	CCP-TP-010
CCP Waste Assay Gamma Spectrometer (WAGS) Operating Procedure	CCP-TP-019
CCP Mobile IQ3 System Calibration Procedure	CCP-TP-046
CCP Mobile IQ3 Gamma Scanner Operation	CCP-TP-047
CCP Mobile IQ3 System Data Reviewing, Validating and Reporting Procedure	CCP-TP-048
CCP Operating the High Efficiency Neutron Counter Using NDA 2000	CCP-TP-063
CCP Calibrating the High Efficiency Neutron Counter Using NDA 2000	CCP-TP-064
CCP Gamma Energy Assay (GEA) Calibration, Confirmation, and Verification Procedure	CCP-TP-070
CCP Gamma Energy Assay (GEA) Operating Procedure	CCP-TP-071
CCP Gamma Energy Assay (GEA) Data Review, Validation, and Reporting Procedure	CCP-TP-072
CCP Off-Site Source Recovery Project Sealed Source Radiological Characterization	CCP-TP-101
CCP Data Reviewing, Validating and Reporting Procedure for the High Efficiency Neutron Counter Using NDA 2000	CCP-TP-103
Operating the CCP High Efficiency Neutron Counter Using NDA 2000	CCP-TP-107
Calibrating the CCP High Efficiency Neutron Counter Using NDA 2000	CCP-TP-108
CCP Data Reviewing, Validating and Reporting Procedure	CCP-TP-109
CCP SWEPP Gamma-Ray Spectrometer (SGRS) Operating Procedure	CCP-TP-115
CCP SuperHENC Operating Procedure	CCP-TP-146
CCP SuperHENC Data Reviewing, Validating and Reporting Procedure	CCP-TP-148
CCP Drum Waste Assay System Imaging Passive/Active Neutron Operations	CCP-TP-166
CCP Drum Waste Assay Imaging Passive/Active Neutron Calibration	CCP-TP-167
CCP Drum Waste Assay System Imaging Passive/Active Neutron/Segmented Gamma Scanner Data Generation Level Validation	CCP-TP-168
CCP Operating the Mobile Segmented Gamma Scanner	CCP-TP-169

Appendix 1 – Radioassay Requirements for Contact-Handled Transuranic Waste
(Continued)

Table A-2.1. NDA Procedures (Continued)

CCP SuperHENC Calibration Procedure	CCP-TP-170
CCP Calibrating the Mobile Segmented Gamma Scanner	CCP-TP-172
CCP Box Segmented Gamma System (BSGS) Operating Procedure	CCP-TP-189
CCP Box Segmented Gamma System (BSGS) Calibration Procedure	CCP-TP-190
CCP Box Neutron Assay System (BNAS) Operating Procedure	CCP-TP-191
CCP Box Neutron Assay System (BNAS) Calibration Procedure	CCP-TP-192
CCP Data Reviewing, Validating, and Reporting Procedure for the Nondestructive Assay Box Counters	CCP-TP-193
Peer Review – Sealed Sources Peer Review Report	Record TWCP-18562

A.4 Quality Control (QC)

To ensure that data of known and documented quality are generated, each participating measurement facility shall implement a documented facility QA program. Any radioassay technique used for TRU waste must be performed in accordance with calibration and operating procedures that have been written, approved, and controlled by the site or testing facility. Laboratory procedures must contain applicable QCs. Facility QA programs shall specify qualitative and quantitative acceptance criteria for the QC checks of this program and corrective action measures to be taken when these criteria are not satisfied. NDA standard operating procedures address QC elements and are listed in Table A-2.1.

A.4.1 General Requirements

Radioassay Training: Only appropriately trained and qualified personnel shall be allowed to perform radioassay and data validation/review. Standardized Training requirements for radioassay personnel shall be based upon existing industry standardized training requirements (e.g., American Society for Testing and Materials [ASTM] C1490, *Standard Guide for Selection, Training and Qualification of Nondestructive Assay [NDA] Personnel* [Reference A8]; American National Standards Institute [ANSI] N15.54, *Radiometric Calorimeters - Measurement Control Program* [Reference A9]) and shall meet the specifications in the QAPD.

Requalification of radioassay personnel shall be based upon evidence of continued satisfactory performance and must be performed at least every two years. The training program is conducted in accordance with procedure CCP-QP-002, *CCP Training and Qualification Plan*.

Appendix 1 – Radioassay Requirements for Contact-Handled Transuranic Waste
(Continued)

Software QC Requirements: All computer programs and revisions thereof used for radioassay shall meet the applicable requirements in Section 6.0 of the QAPD (Reference A2) and in accordance with procedure CCP-QP-022, *CCP Software Quality Assurance Plan*.

Comparison Programs: Sites using radioassay systems shall participate in any relevant measurement comparison program(s) sponsored or approved by the CBFO. Such programs may be conducted as part of the NDA PDP (References A7 and A10) or through other third parties (Reference: WIPP Compliance Recertification Application including Annual Reports to the EPA).

A.4.2 NDA QC Requirements

The assay procedures cited in various ASTM and ANSI standards (References A9, A11-A15) and NRC standard practices and guidelines (Reference A16) as referenced in this appendix are recommended for use at all testing facilities.

Background Measurements: Background measurements must be performed and recorded daily, unless otherwise approved by CBFO. Contributions to background due to radiation from nearby radiation producing equipment, standards or wastes must be carefully controlled or more frequent background checks must be performed. For calorimeters, basepower or baseline measurements shall be conducted at a frequency determined by each site and approved by CBFO.

Instrument Performance Measurements: Performance checks on calibrated and operable gamma and neutron NDA instruments must be performed and recorded once per operational day. Performance checks shall include efficiency checks (when applicable), matrix correction checks and, for spectrometric instruments, peak position and resolution checks.

Both radioactive sources and surrogate waste matrix containers (both non-interfering and interfering) are used. At least once per operational week an interfering matrix must be used to assess the long-term stability of the NDA instrument's matrix correction. Surrogate waste containers must reflect the type of waste, (e.g., debris, sludge) currently being assayed. To verify calibration, radioactivity standards must be selected such that, over a six-month period, the operating range of the assay system is tested in each applicable surrogate waste matrix. The use of interfering and non-interfering matrices provides a realistic assessment of the assay system's performance over time, and will assist measurement personnel in detecting potential problems relative to the matrices currently assayed by the measurement system.

Appendix 1 – Radioassay Requirements for Contact-Handled Transuranic Waste
(Continued)

Interfering surrogate matrix containers must be constructed in such a way that the waste characteristics do not change over time.

Radioactive sources should be long-lived, easy to position relative to the detector(s), and of sufficient radioactivity to obtain good results with relatively short count times.

Performance checks for calorimetry shall be performed with electrical and/or heat standards traceable to a nationally accredited measurement program at a frequency determined by each site, consistent with Reference A17. This information is specified in site operating procedures and approved by CBFO.

Data Checks: Background (for calorimetry: baseline or base power) and performance measurements shall be reviewed and evaluated at least weekly to determine continued acceptability of the assay system and to monitor performance trends. If daily performance checks result in data that are outside the acceptable range, the required responses in Table A-3 shall be followed.

Table A-3. Range of Applicability

Category	Acceptability Range ^a	Required Response
Acceptable Range	*Data* ^c # 2σ ^b	No action required.
Warning Range	2σ ^b < *Data* # 3σ ^b	The performance check standard shall be rerun no more than two times. If the rerun performance check(s) result in data within ± 2σ, then the additional performance checks shall be documented and work may continue. If the system does not fall within ± 2σ after two rerun performance checks, then the required response for the Action Range shall be followed.
Action Range	*Data* > 3σ ^b	Work shall stop and the occurrence shall be documented and appropriately dispositioned (e.g., initiating a non-conformance report). The radioassay system shall be removed from service pending successful resolution of all necessary actions, and all assays performed since the last acceptable performance check are suspect, pending satisfactory resolution. Recalibration or calibration verification is required prior to returning the system back to service.
^a Reference A15 ^b "σ" - the standard deviation is only based on the reproducibility of the data check measurements themselves. This is not TMU. ^c Absolute Value		

Appendix 1 – Radioassay Requirements for Contact-Handled Transuranic Waste
(Continued)

A.5 Data Management

A.5.1 Data Review and Validation

All radioassay data must be reviewed and approved by qualified personnel prior to being reported. At a minimum, the data must be reviewed by a technical reviewer and approved by the SPM. The validation process includes verification that the applicable QCs specified in Section A.4 have been met. Radioassay data is reviewed at the data generation level in accordance with NDA operating procedures listed in Table A-2.1, while data validation and verification at the Project Office is performed in accordance with procedure CCP-TP-001, *CCP Project Level Data Validation and Verification*.

A.5.2 Data Reporting

Radioassay data must be reported to the Site Project Office on a testing batch basis. Batches are defined, for the purpose of the program, as a suite of waste containers undergoing radioassay using the same testing equipment. For NDA, the sites shall specify the size of the testing batch as needed, without regard to waste matrix.

Each radioassay testing facility is required to submit testing BDRs for each testing batch to the site project office on standard forms (either hard copy or electronic equivalent), as provided in approved site-specific documentation. Radioassay testing BDRs shall consist of the following:

- testing facility name, testing batch number, container numbers included in that testing batch, and signature release by the SPM
- table of contents
- background and performance data or control charts for the relevant time period
- data validation per the QAPD (Reference A2, Section 5.3.2) and as described in site procedures (Reference Table A-2.1)
- separate testing report sheet(s) for each container in the testing batch that includes:
 - title “Radioassay Data Sheet”
 - method used for radioassay (i.e., procedure identification)
 - date of radioassay

Appendix 1 – Radioassay Requirements for Contact-Handled Transuranic Waste
(Continued)

- activities and/or masses of individual radioisotopes present and their associated TMUs (curies and/or grams)
- operator signature/date
- reviewer signature/date

Other radiological properties to be documented for each container include:

- decay heat expressed in Watts (W) and its associated TMU
- total ^{239}Pu FGE expressed in grams (g) and its associated TMU
- TRU alpha activity concentration expressed in curies/gram (Ci/g) and its associated TMU, and
- total ^{239}Pu equivalent activity expressed in Ci

These calculated quantities shall be included in the radioassay BDR or other QA record or database.

When TMU is reported differently on the testing report sheet than in WWIS/WDS, the method of expressing TMU shall be specified on the testing report sheet or associated procedures/QAPjP.

Radioassay data reporting at the data generation level is performed in accordance with NDA operating procedures listed in Table A-2.1, while data validation and verification at the Project Office is performed in accordance with procedure CCP-TP-001. Data reporting in WWIS/WDS is performed in accordance with procedure CCP-TP-030.

A.5.3 Data and Records Retention

QA records are indexed, classified, controlled, and maintained by records management personnel as described in procedure CCP-QP-008, *CCP Records Management*, and the site Records System. Records management is addressed in Section 5.5 of this Plan.

Appendix 1 – Radioassay Requirements for Contact-Handled Transuranic Waste
(Continued)

The following nonpermanent records shall be maintained at the radioassay-testing facilities or shall be forwarded to the Site Project Office for maintenance, and shall be documented and retrievable by testing batch number, in accordance with the QAPD:

- testing batch reports
- all raw data, including instrument readouts, calculation records, and radioassay QC results
- all instrument calibration reports, as applicable

A.6 Quality Characteristics Assessment

Per 40 CFR §194.22(c), there are five “quality characteristics” that must be assessed. These quality characteristics and the method by which they are assessed are described in the following sections.

A.6.1 Data Accuracy

Per 40 CFR §194.22(c)(1), *Data Accuracy* is defined as “the degree to which data agree with an acceptable reference or true value.” For NDA methods, this quality characteristic is met and maintained as described in Section A.3.

A.6.2 Data Precision

Per 40 CFR §194.22(c)(2), *Data Precision* is defined as “a measure of the mutual agreement between comparable data gathered or developed under similar conditions expressed in terms of standard deviation.” For NDA methods, this quality characteristic is met and maintained as described in Section A.3.

A.6.3 Data Representativeness

Per 40 CFR §194.22(c)(3), *Data Representativeness* is defined as “the degree to which data can accurately and precisely represent a characteristic of a population, a parameter, variations at a sampling point, or environmental conditions.” For NDA methods, this quality characteristic for the waste stream is met and maintained through 100 percent measurement confirmation on a payload container basis. For NDA, since the entire waste container is subjected to measurement, representativeness pertaining to the actual measurement is not applicable.

Appendix 1 – Radioassay Requirements for Contact-Handled Transuranic Waste
(Continued)

A.6.4 Data Completeness

Per 40 CFR §194.22(c)(4), *Data Completeness* is defined as “a measure of the amount of valid data obtained compared to the amount that was expected.” For NDA methods, this quality characteristic is met and maintained by requiring 100 percent valid results. Any results indicating the NDA measurement was invalid require re-measurement.

A.6.5 Data Comparability

Per 40 CFR §194.22(c)(5), *Data Comparability* is defined as “a measure of confidence with which one data set can be compared to another.” For NDA and RC methods, this quality characteristic is addressed by ensuring that all data are produced under the same system of controls. These controls apply to all aspects of the data generation process, including: procurement of analytical instruments; calibration and operation of assay equipment according to industry standards; preparation and use of standardized instrument and data review procedures; and, training of equipment operators and technical/data review personnel to the QAPD, as specified in Section A.4.1. All NDA systems and methods are approved by CBFO prior to use in generating waste characterization data. Additionally, comparison of measured data with AK derived or based values, as applicable, provides a means to assess comparability on a waste stream basis. Although no specific confidence level is specified, these controls provide comparability among all data generated under this program. Sites using radioassay systems shall participate in measurement comparison programs as specified in Section A.4.1.

Appendix 2 – Appendix 1 References

- A1 U.S. Nuclear Regulatory Commission. *Peer Review for High-Level Nuclear Waste Repositories*, NUREG-1297, Washington D.C., Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission
- A2 U.S. Department of Energy. *Quality Assurance Program Document*. DOE/CBFO-94-1012. Carlsbad, New Mexico, Carlsbad Field Office, U.S. Department of Energy.
(<http://www.wipp.energy.gov/library/qapd/qapd.pdf>)
- A3 Currie, Lloyd A., 1968. *Limits for Qualitative Detection and Quantitative Determination*. *Anal.Chem.* 40: 586-93
- A4 EPA, 1980. *Upgrading Environmental Radiation Data*. EPA 520/1-80-012, Washington D.C., Office of Radiation Programs, U. S. Environmental Protection Agency
- A5 K. C. Smith, R. A. Stroud, K. L. Coop, and J. F. Bresson. 1998. *Total Measurement Uncertainty Assessment for Transuranic Waste Shipments to the Waste Isolation Pilot Plant*. Proceedings of the 6th Nondestructive Assay Waste Characterization Conference, Salt Lake City, Utah, Nov. 17-19, 1998, pp. 21-37
- A6 K. L. Coop, J. F. Bresson, M. E. Doherty, B. M. Gillespie, and D. R. Davidson. *Standardized Total Measurement Uncertainty Reporting for WIPP*. Nondestructive Assay Interface Working Group, Salt Lake City, Utah, May 22, 2000
- A7 U.S. Department of Energy. *Performance Demonstration Program Plan for Nondestructive Assay of Boxed Wastes for the TRU Waste Characterization Program*. DOE/CBFO-01-1006, Current Revision. Carlsbad, New Mexico, Carlsbad Field Office, U.S. Department of Energy.
(<http://www.wipp.energy.gov/Documents/NTP.htm>)
- A8 American Society for Testing and Materials. *Standard Guide for Selection, Training and Qualification of Nondestructive Assay (NDA) Personnel*, ASTM C1490, Annual Book of ASTM Standards, Philadelphia, Pennsylvania, American Society for Testing and Materials
- A9 American National Standards Institute. *Radiometric Calorimeters - Measurement Control Program*, ANSI N15.54, American National Standards Institute, Inc., 1430 Broadway, New York, NY 10018

Appendix 2 – Appendix 1 References (Continued)

- A10 U.S. Department of Energy. *Performance Demonstration Program Plan for Nondestructive Assay of Drummed Wastes for the TRU Waste Characterization Program*. DOE/CBFO-01-1005, Current Revision. Carlsbad, New Mexico, Carlsbad Field Office, U.S. Department of Energy.
(http://www.wipp.energy.gov/Documents_NTP.htm)
- A11 American Society for Testing and Materials. *Standard Test Method for Determination of Plutonium Isotopic Composition by Gamma-Ray Spectrometry*. ASTM C1030, Annual Book of ASTM Standards, Philadelphia, Pennsylvania, American Society for Testing and Materials
- A12 American Society for Testing and Materials. *Standard Test Method for Nondestructive Assay of Nuclear Material in Scrap and Waste by Passive-Active Neutron Counting Using a 252Cf Shuffler*. ASTM C1316, Philadelphia, Pennsylvania, American Society for Testing and Materials
- A13 American Society for Testing and Materials. *Standard Test Method for Nondestructive Assay of Special Nuclear Material in Low Density Scrap and Waste by Segmented Passive Gamma-Ray Scanning*. ASTM C1133, Annual Book of ASTM Standards, Philadelphia, Pennsylvania, American Society for Testing and Materials
- A14 American Society for Testing and Materials. *Standard Test Method for Nondestructive Assay of Plutonium, Tritium and 241 Am by Calorimetric Assay*. ASTM C1458, Annual Book of ASTM Standards, Philadelphia, Pennsylvania, American Society for Testing and Materials
- A15 American National Standards Institute. *Nondestructive Assay Measurement Control and Assurance*, ANSI N15.36. American National Standards Institute, Inc., 1430 Broadway, New York, NY 10018
- A16 U.S. Nuclear Regulatory Commission. 1984. *Nondestructive Assay of Special Nuclear Material Contained in Scrap and Waste*. Regulatory Guide 5.11, Washington, DC, Office of Nuclear Regulatory Research, U.S. Nuclear Regulatory Commission
- A17 American National Standards Institute. *Plutonium-Bearing Solids Calibration Techniques for Calorimetric Assay*. ANSI N15.22, American National Standards Institute, Inc., 1430 Broadway, New York, NY 10018

Appendix 3 – Acronyms and Abbreviations

AK	Acceptable Knowledge
ALARA	as low as reasonably achievable
AMAD	activity mean aerodynamic diameter
ANSI	American National Standards Institute
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
BDR	Batch Data Report
CBFO	Carlsbad Field Office
CAR	Corrective Action Report
CCP	Central Characterization Program
CFR	Code of Federal Regulations
CH	Contact-Handled
CH-TRAMPAC	Contact-Handled Transuranic Waste Authorized Methods for Payload Control
CH-TRU	Contact-Handled Transuranic
Ci	curies
Ci/g	curies/gram
CIN	Container Identification Number
cm ²	Square centimeters
cm ³	Cubic centimeters
CPR	cellulose, plastic, and rubber
DA	Destructive assay
DSA	Documented Safety Analysis
DOE	U.S. Department of Energy
DOT	U.S. Department of Transportation
DPM	disintegrations per minute
DQO	Data Quality Objective
DSA	Documented Safety Analysis
EPA	U.S. Environmental Protection Agency
FEIS	Final Environmental Impact Statement
FEM	fissile equivalent mass
FGE	fissile gram equivalent
g	gram
GGT	gas generation testing
hr	hour
HSG	Headspace Gas
HWFP	Hazardous Waste Facility Permit
ID	identification number
in.	inch
keV	Kiloelectron Volt
kg	kilogram(s)
L	Liter
LLD	lower limit of detection

Appendix 3 – Acronyms and Abbreviations (Continued)

LDR	Land Disposal Restriction
LWA	Land Withdrawal Act
M ³	cubic meter(s)
ml	milliliter(s)
mrem	milliroentgen equivalent man
M&TE	Measuring and Testing Equipment
nCi/g	nanocurie(s) per gram
NDA	nondestructive assay
NCR	Nonconformance Report
NDE	Nondestructive Examination
NEPA	National Environmental Policy Act
NMAC	New Mexico Administrative Code
NMED	New Mexico Environment Department
NMMA	nuclear material management area
NRC	U.S. Nuclear Regulatory Commission
NTP	National TRU Program
NWP	Nuclear Waste Partnership
OJT	on-the-job training
OPCTCD	Overpack Payload Container Transportation Certification Document
PATCD	Payload Assembly Transportation Certification Document
PCB	polychlorinated biphenyl
PCTCD	Payload Container Transportation Certification Document
PDP	Performance Demonstration Program
PE-Ci	²³⁹ Pu equivalent curie(s)
POC	point-of-contact
ppm	parts per million
QA	Quality Assurance
QAO	Quality Assurance Objective
QAPD	Quality Assurance Program Document
QAPjP	Quality Assurance Project Plan
QC	Quality Control
QSL	Qualified Suppliers List
%R	Percent Recovery
%RSD	percent relative standard deviation
RC	radiochemistry
RCRA	Resource Conservation and Recovery Act
RCT	Radiological Control Technician
rem	roentgen equivalent man
RH	Remote-Handled
RH-TRAMPAC	Remote-Handled Transuranic Waste Authorized Methods for Payload Control
RIDS	Records Inventory and Disposition Schedule

Appendix 3 – Acronyms and Abbreviations (Continued)

RPD	relative percent difference
RSD	relative standard deviation
RTR	Real-Time Radiography
SAR	Safety Analysis Report
SEIS	Supplemental Environmental Impact Statement
SLB2	standard large box 2
SME	subject matter expert(s)
SNM	Special Nuclear Material
SOW	Statement of Work
SPM	Site Project Manager
SWB	Standard Waste Box
TCO	Transportation Certification Official
TDOP	ten-drum overpack
TMU	total measurement uncertainty
TRAMPAC	Transuranic Authorized Methods for Payload Control
TRU	Transuranic
TRUPACT-II	Transuranic Package Transporter-II
TRUPACT-III	Transuranic Package Transporter-III
TSDf	Treatment, Storage, and Disposal Facility
VE	visual examination
VOC	volatile organic compound
UHWm	Uniform Hazardous Waste Manifest
VEE	Visual Examination Expert(s)
WAC	Waste Acceptance Criteria
WCO	Waste Certification Official
WDS	Waste Data System
WCPIP	<i>Remote-Handled TRU Waste Characterization Program Implementation Plan</i>
WIPP	Waste Isolation Pilot Plant
WIPP WAP	Waste Isolation Pilot Plant Waste Analysis Plan
WSPF	Waste Stream Profile Form
WWIS	WIPP Waste Information System

Appendix 4 – Procedure Tables

Table B-1. Container Management Procedures

Procedure Title	Procedure Number
CCP Container Management	CCP-TP-035
CCP Standardized Container Management	CCP-TP-068
CCP Container Management	CCP-TP-120

Table B-2. Radiography Procedures

Procedure Title	Procedure Number
CCP Standard Real-Time Radiography (RTR) Inspection Procedure	CCP-TP-053

Table B-3. VE Procedures

Procedure Title	Procedure Number
CCP Visual Examination Technique for Idaho National Laboratory (INL) Newly Generated TRU Waste	CCP-TP-006
CCP Sealed Source Visual Examination and Packaging	CCP-TP-069
CCP Standard Contact-Handled Waste Visual Examination	CCP-TP-113

Table B-4. GGT Procedures

Procedure Title	Procedure Number
CCP Gas Generation Testing	CCP-TP-083
CCP Execution of Long-Term Objective for the Unified Flammable Gas Test Procedure	CCP-TP-138

Table B-5. Certification Procedures

Procedure Title	Procedure Number
CCP Transuranic Authorized Methods For Payload Control (CCP-CH-TRAMPAC)	CCP-PO-003
CCP Remote-Handled Transuranic Waste Authorized Methods for Payload Control (CCP RH-TRAMPAC)	CCP-PO-505
CCP CH-TRU Waste Certification and WWIS/WDS Data Entry	CCP-TP-030
CCP RH-TRU Waste Certification and WWIS/WDS Data Entry	CCP-TP-530

Appendix 4 – Procedure Tables (Continued)

Table B-6. Remote-Handled Procedures

Procedure Title	Procedure Number
CCP Remote-Handled Waste Visual Examination	CCP-TP-500
CCP Dose-to-Curie Survey Procedure for Remote-Handled Transuranic Waste	CCP-TP-504
CCP Removable Lid Canister Loading	CCP-TP-505
CCP Shipping of Remote-Handled Transuranic Waste	CCP-TP-507
CCP RH Standard Real-Time Radiography Inspection Procedure	CCP-TP-508
CCP Remote-Handled Waste Sampling	CCP-TP-512

Appendix 5 – PE-Ci Activity

The concept of PE-Ci is intended to eliminate the dependency of radiological analyses on specific knowledge of the radionuclide composition of a TRU waste stream. A unique radionuclide composition and/or distribution are associated with most TRU waste streams at each site. By normalizing all radionuclides to a common radiotoxic hazard index, radiological analyses that are essentially independent of these variations can be conducted for the WIPP facility. ^{239}Pu , as a common component of most defense TRU wastes, was selected as the radionuclide to which the radiotoxic hazard of other TRU radionuclides could be indexed.

Modeled operational releases from the WIPP facility, including both routine and accident-related, are airborne. There are no known significant liquid release pathways during the operational phase of the facility. This, and the fact that TRU radionuclides primarily represent inhalation hazards, allows a valid relationship to be established, which normalizes the inhalation hazard of a TRU radionuclide to that of ^{239}Pu for the purpose of the WIPP radiological analyses. In effect, the radiological dose consequences of an airborne release of a quantity of TRU radioactivity with a known radionuclide distribution will be essentially identical to that of a release of that material expressed in terms of a quantity of ^{239}Pu . To obtain this correlation, the 50-year effective whole-body dose commitment or dose conversion factor for a unit intake of each radionuclide will be used.

For a known radioactivity quantity and radionuclide distribution, the ^{239}Pu equivalent activity is determined using radionuclide-specific weighting factors. The ^{239}Pu equivalent activity (AM) can be characterized by:

$$AM = \sum_{i=1}^K A_i / WF_i$$

where K is the number of TRU¹ radionuclides, A_i is the activity of radionuclide i , and WF_i is the PE-Ci weighting factor for radionuclide i .

WF_i is further defined as the ratio

$$WF_i = E_o / E_i$$

where E_o (roentgen equivalent man [rem]/ μCi) is the 50-year effective whole-body dose commitment due to the inhalation of ^{239}Pu particulates with a 1.0 μm activity median aerodynamic diameter (AMAD) and a weekly pulmonary clearance class, and E_i

¹TRU as designated in this equation refers to any radionuclide with an atomic number greater than 92 and including ^{233}U .

Appendix 5 – PE-Ci Activity (Continued)

(rem/μCi) is the 50-year effective whole-body dose commitment due to the inhalation of radionuclide (*i*) particulates with a 1.0 μm activity median aerodynamic diameter and the pulmonary clearance class resulting in the highest 50-year effective whole-body dose commitment.

Weighting factors calculated in this manner are presented in Table C-1 for radionuclides typically present in CH-TRU waste. If other TRU radionuclides are determined to be present in the payload container, their weighting factors can be obtained from the values of E_o and E_i contained in DOE/EH-0071 (Reference B1).

Table C-1. PE-Ci Weighting Factors for Selected Radionuclides

Radionuclide	Pulmonary Clearance Class ^a	Weighting Factor
²³³ U	Y	3.9
²³⁷ Np	W	1.0
²³⁶ Pu	W	3.2
²³⁸ Pu	W	1.1
²³⁹ Pu	W	1.0
²⁴⁰ Pu	W	1.0
²⁴¹ Pu	W	51.0
²⁴² Pu	W	1.1
²⁴¹ Am	W	1.0
²⁴³ Am	W	1.0
²⁴² Cm	W	30.0
²⁴⁴ Cm	W	1.9
²⁵² Cf	Y	3.9

^a(W) Weekly, (Y) Yearly

Reference for Appendix 5

- B1. U.S. Department of Energy. *Internal Dose Conversion Factors for Calculation of Dose to the Public*. DOE/EH-0071, July 1988.

Appendix 6 – Glossary

10-160B Packaging – An NRC-certified Type B transportation packaging used for transportation of TRU wastes.

Acceptable knowledge (AK) – Any information about the process used to generate waste, material inputs to the process, and the time period during which the waste was generated, as well as data resulting from the analysis of waste, conducted prior to or separate from the waste certification process authorized by EPA's Certification Decision, to show compliance with Condition 3 of the certification decision (Appendix A of this part) (40 CFR §194.2 and 194.67).

Activity – A measure of the rate at which a material emits nuclear radiation, usually given in terms of the number of nuclear disintegrations occurring in a given length of time. The common unit of activity is the curie, which amounts to 37 billion (3.7×10^{10}) disintegrations per second. The International Standard unit of activity is the becquerel and is equal to one disintegration per second.

Administrative controls – Provisions relating to organization and management, procedures, record keeping, assessment, and reporting necessary to ensure the safe operation of the facility.

Atomic energy defense activities – Activities of the Secretary of Energy (and predecessor agencies) performed in whole or in part in carrying out any of the following functions: naval reactors development; weapons activities, including defense inertial confinement fusion; verification and control technology; defense nuclear material production; defense nuclear waste and materials by-product management; defense nuclear materials security investigations; and defense research and development.

Authorization basis – Those aspects of the facility design and operational requirements relied upon by DOE to authorize the operation of nuclear facilities and processes.

Characterization – Sampling, monitoring, and analysis - whether by review of AK, nondestructive examination, NDA, or RC - to identify and quantify the constituents of a waste material.

Chemical compatibility – Assessing the properties of chemicals in a payload container (>1 weight percent); there must be no adverse safety or health hazards produced as a result of any mixtures that occur.

Appendix 6 – Glossary (Continued)

Completeness – The percentage of measurements made that are judged to be valid measurements. The completeness goal is to generate a sufficient amount of valid data based on program needs. Valid results for radioassay, and radiography data are those that were obtained when the laboratory or testing facility demonstrated that the instrumentation and method were in control; that is, that all calibration, verification, interference, and zero matrix checks met acceptance criteria.

Compressed gas – Compressed gases are those materials defined as such by 49 CFR Part 173, Subpart G.

Contact-Handled transuranic waste – Transuranic waste with a surface radiation dose equivalent rate not greater than 200 mrem/h.

Contact-Handled Transuranic Waste Authorized Methods for Payload Control (CH-TRAMPAC) – The governing document for shipments in the TRUPACT-II and the HalfPACT packagings.

Content code – A uniform system applied to waste forms to group those with similar characteristics for purposes of shipment in the TRUPACT-II, TRUPACT-III, HalfPACT, and RH-TRU 72-B packagings.

Corrosive/Corrosivity – A solid waste exhibits corrosivity if a sample of the waste is either aqueous and has a pH ≤ 2 or ≥ 12.5 , or it is a liquid and corrodes steel at a rate > 6.35 millimeter (0.250 in.) per year at a test temperature of 55°Celsius (130°Fahrenheit) (40 CFR §261.22).

Curie – A unit of activity equal to 37 billion (3.7×10^{10}) disintegrations per second.

Disposal – Permanent isolation of TRU waste from the accessible environment with no intent of recovery, whether or not such isolation permits the recovery of such waste (Reference 2, Section 2[5]).

Dose conversion factor – A numerical factor used in converting radionuclide uptake (curies) in the body to the resultant radiation dose (rem).

Dose equivalent rate – The radiation dose equivalent delivered per unit time (e.g., rem per hour).

Drum – Includes 55-gallon, 85-gallon, and 100-gallon drums as described in the CH-TRAMPAC and HWFP.

Fissile gram equivalent – An isotopic mass of radionuclide normalized to ^{239}Pu .

Appendix 6 – Glossary (Continued)

Fissile material – Any material consisting of or containing one or more radionuclides that can undergo neutron-induced fission with neutrons of essentially zero kinetic energy (e.g., thermal neutrons) such as ^{233}U , ^{235}U , and ^{239}Pu .

HalfPACT – An NRC-certified Type B transportation packaging used for transportation of CH-TRU wastes.

Hazardous waste – Those wastes which are designated hazardous by EPA (or state) regulations. For a detailed description, see 40 CFR § 261.3. Hazardous wastes are listed in 20.4.1 New Mexico Administrative Code (NMAC), subpart II (40 CFR Part 261) and/or exhibit one of the four characteristics in 20.4.1 NMAC, subpart II (40 CFR Part 261) (i.e., ignitability, corrosivity, reactivity, and toxicity).

Headspace – The total contained volume of a container minus the volume occupied by the waste material.

Headspace gas – The gas within the headspace of a container.

Internal container – A container inside the outermost container examined during radiography or VE. Drum liners, liner bags, plastic bags used for contamination control, capillary-type lab ware, and debris not designed to hold liquid at the time of original waste packaging are not internal containers (Reference 9, Part 1, Section 1.5.17).

Lower Limit of Detection – The level of radioactivity which, if present, will yield a measured value greater than the critical limit with a 95 percent probability. The critical limit is defined as that value which measurements of the background will exceed with a 5 percent probability.

Machine-Compacted Waste – Waste whose volume has been reduced using a mechanical process.

Observable liquid – Liquid that is observable using radiography or VE (Reference 9, Part 1, Section 1.5.18)

Overpack - A container put around another container.

Package – (1) A packaging plus its contents. (2) The reusable Type B shipping container (i.e., TRUPACT-II, TRUPACT-III, HalfPACT, RH-TRU 72-B, and 10-160B) loaded with TRU waste payload containers, which has been prepared for shipment in accordance with the package QA program. (3) In the regulations governing the transportation of radioactive materials, the packaging, together with its radioactive contents, as presented for transport.

Appendix 6 – Glossary (Continued)

Packaging – The reusable Type B shipping container for transport of TRU waste payload containers (i.e., TRUPACT-II, TRUPACT-III, HalfPACT, RH-TRU 72-B, and 10-160B).

Packaging Quality Assurance Program – A site-specific document that defines the quality assurance and quality control activities applicable to usage of the NRC-approved packaging. This program shall meet the requirements of 10 CFR Part 71, Subpart H.

Payload container – The outermost container (i.e., a drum, shielded container, SLB2, SWB, TDOP, or canister) for TRU waste material that is placed in a reusable Type B shipping container (i.e., a TRUPACT-II, TRUPACT-III, HalfPACT, RH-TRU 72-B, and 10-160B) for transport.

Payload assembly – An assembly of payload containers qualified for transport in a TRUPACT-II, HalfPACT, or 10-160B.

Pipe overpack – A packaging configuration consisting of a vented cylindrical pipe component surrounded by dunnage within a vented 55-gallon drum with a rigid polyethylene liner and vented lid.

Plutonium-239 equivalent activity – An equivalent radiotoxic hazard of a radionuclide normalized to ²³⁹Pu.

Precision – A measure of mutual agreement among individual measurements of the same property made under prescribed similar conditions; often expressed as a standard deviation or relative percent difference (RPD).

Pyrophoric – Materials that may ignite spontaneously in air or that emit sparks when scratched or struck, especially with materials such as steel. A flammable solid that, under transport conditions, might cause fires through friction or retained heat or that can be ignited readily and, when ignited, burns vigorously and persistently so as to create a serious transportation hazard. Included in the pyrophoric definition are spontaneously combustible materials, water reactive materials, and oxidizers. Examples of nonradioactive pyrophorics are organic peroxides, sodium metal, and chlorates.

Radioassay – Methods used to identify and quantify radionuclides in TRU waste. Radioassay includes NDA and RC.

Radiography – A nondestructive testing method that uses x-rays to inspect and determine the physical form of waste.

Radionuclide – A nuclide that emits radiation by spontaneous transformation.

Remote-Handled transuranic waste – Transuranic waste with a surface dose rate of 200 millirem per hour or greater (Reference 2, Section 2[12]).

Appendix 6 – Glossary (Continued)

Remote-Handled Transuranic Waste Authorized Methods for Payload Control (RH-TRAMPAC) – The governing document for shipments in the RH-TRU 72-B packaging (Reference 41).

RH-TRU Waste Canister – Container that is transported in the RH-TRU 72B Cask.

RH-TRU 72-B Packaging – An NRC-certified Type B transportation packaging used for transportation of RH TRU wastes.

Shielded container – A metal payload container authorized for use within the HalfPACT packaging, that has been tested by DOE to meet DOT Specification 7A Type A requirements. It is approximately the same size as a standard 55-gallon drum, contains one 30-gallon steel drum, and incorporates a nominal 1-inch layer of lead lining to shield waste forms with high gamma energies. Although the shielded container is managed during handling, shipment, storage, and disposal as a CH payload container, the waste contained in a shielded container is characterized and inventoried in the WWIS as RH waste.

Shipper – A TRU waste site that releases an NRC-approved packaging to a carrier for shipment.

Shipping category – A shipping category is defined by the following parameters: chemical composition of the waste (waste type), gas generation potential of the waste material type (quantified by the g-value for hydrogen), and gas release resistance (type of payload container and type and maximum number of confinement layers used).

Sites – Department of Energy TRU waste generator/storage sites.

Standard large box 2 – A specialized metal payload container with a top-loading and a bottom-loading option for use within the TRUPACT-III packaging, that has been tested by DOE to meet DOT Specification 7A Type A requirements.

Standard waste box – A metal payload container authorized for use within the TRUPACT-II or HalfPACT packaging, that has been tested by DOE to meet DOT Specification 7A Type A requirements.

Summary Category Group – Used to segregate TRU mixed wastes into broad groups having similar physical forms. The summary category groups include homogeneous solids (S3000) that are at least 50 percent by volume solid process residues, soil/gravel (S4000) that is at least 50 percent by volume soil/gravel, and debris (S5000) that is at least 50 percent by volume materials that meet the criteria specified in 20.4.1.800 New Mexico Administrative Code (incorporating 40 CFR §268.2[g]). Categorization is based on the Summary Category Group constituting the greatest volume of waste for a waste stream (Reference 9, Attachment C).

Appendix 6 – Glossary (Continued)

Ten-drum overpack – A metal payload container authorized for use within the TRUPACT-II packaging, that has been tested by DOE to meet DOT Specification 7A Type A requirements.

Test Category – Payload containers that do not meet the analytical category decay heat limits or whose concentration of flammable volatile organic compounds (VOCs) in the headspace exceeds 500 ppm are classified as test category (References 23a and 23b, Section 5.2.2).

Trace chemicals/materials – Chemicals/materials that occur individually in the waste in quantities less than 1 weight percent. The total quantity of trace chemicals/materials not listed as allowed materials for a given waste material type in any payload container is restricted to less than 5 weight percent (References 23a and 23b, Section 4.3.1, Reference 41, Section 4.3.1).

TRU isotope – An isotope of any element having an atomic number greater than uranium (i.e., 92).

TRU waste – Waste containing more than 100 nCi of alpha-emitting TRU isotopes per gram of waste, with half-lives greater than 20 years, except for (1) high-level radioactive waste, (2) waste that the Secretary has determined, with the concurrence of the Administrator, does not need the degree of isolation required by the disposal regulations, or (3) waste that the NRC has approved for disposal on a case-by-case basis in accordance with 10 CFR Part 61 (Reference 2, Section 2[18]).

TRU mixed waste – TRU waste that is also a hazardous waste as defined by the Hazardous Waste Act and 20.4.1.200 NMAC (incorporating 40 CFR § 261.3) (Reference 9, Part 1, Section 1.5.7).

TRUPACT-II – An NRC-certified Type B transportation packaging used for transportation of CH-TRU wastes.

TRUPACT-III – An NRC-certified Type B transportation packaging used for transportation of CH-TRU wastes in the SLB2 container.

TRUPACT-III Transuranic Waste Authorized Methods for Payload Control (TRUPACT-III TRAMPAC) – The governing document for shipments in the TRUPACT-III packaging (Reference 23b, Section 1).

Verification – The act of authenticating or formally asserting the truth that a process, item, data set, or service is, in fact, that which is claimed. Data verification is the process used to confirm that all review and validation procedures have been completed.

Appendix 6 – Glossary (Continued)

Volatile organic compounds – For the purposes of the TRU waste program, those RCRA-regulated VOCs listed in the WIPP WAP and any additional compounds tentatively identified by VOC analytical procedures used to satisfy program requirements (i.e., any compound containing carbon and hydrogen with any other element that has a vapor pressure of 77.6 milliliters (ml) of mercury (1.5 psia) or greater under actual storage conditions).

Waste Acceptance Criteria – Constraints (limits) on the physical, chemical, and radiological properties of TRU waste and its packaging as determined by WIPP's authorization basis requirements. TRU waste will not be approved for shipment to and disposal at the WIPP until it has been certified as meeting these criteria. Waste Acceptance Criteria ensure that TRU waste is managed and disposed of in a manner that protects human health and safety and the environment.

Waste Analysis Plan – The waste analysis plan includes test methods, details of planned waste analysis for complying with the general waste analysis requirements of 20.4.1.500 NMAC (incorporating 40 CFR 264.13), a description of the waste shipment screening and verification process, and a description of the QA/QC program. Sites are required to implement the applicable requirements of the WIPP WAP.

Waste characterization – The process of determining that TRU waste meets the requirements of the WAC by the acceptable performance of the activities defined by CBFO-approved site-specific plans.

Waste certification – Formal and documented declaration by sites that waste has been characterized and meets the requirements of the WAC.

Waste matrix code – A DOE-developed coding system for grouping waste streams that have similar matrix constituents, especially for treatment objectives. This coding system allows waste streams within the DOE TRU waste system that have similar physical and chemical waste form properties to be categorized together (Transuranic Waste Baseline Inventory Report - 2004, DOE/TRU-2006-3344).

Waste stream – A waste stream is waste materials that have common physical form, that contain similar hazardous constituents and that are generated from a single process or activity (Reference 9, Appendix C).

WIPP Waste Information System – A computerized data management system used by WIPP to gather, store, and process information pertaining to CH and RH-TRU waste destined for or disposed of at WIPP. The WWIS database is a subsystem of the WDS.

Appendix 7 – Payload Container Integrity Checklist

The Operator is to visually examine 100 percent of the payload container exterior to determine if the payload container meets the criteria of Section 3.2.1. At a minimum, sites shall incorporate the questions and criteria contained in the following checklist into applicable site procedures (see CCP-TP-033, *CCP Shipping of CH-TRU Waste*). This payload container inspection shall be performed and documented as a part of the TRUPACT-II, TRUPACT-III, or HalfPACT loading process. Any YES answer on the inspection checklist will result in the operator discontinuing the inspection, marking the payload container as unacceptable for shipment, and removal of the payload container from the shippable inventory. Before the rejected container can be shipped, it must undergo appropriate corrective actions (e.g., evaluation, repackaging, overpacking), as applicable. All containers must have an acceptable and complete inspection checklist documenting that it meets the DOT 7A criteria. Personnel complete the following payload container integrity checklist in accordance with procedure CCP-TP-033.

CONTAINER EXAMINATION		DISCUSSION OF CRITERIA	COMPLIANCE	
1.	Is the payload container obviously degraded?	Obviously degraded means clearly visible and potentially significant defects in the payload container or payload container surface.	YES	NO
2.	Is there evidence that the payload container is, or has been, pressurized?	Pressurization can be indicated by a fairly uniform expansion of the sidewalls, bottom or top. Past pressurization can be indicated by a notable outward deflection of the bottom or top. Verify that the payload container is not warped.	YES	NO

Appendix 7 – Payload Container Integrity Checklist (Continued)

CONTAINER EXAMINATION		DISCUSSION OF CRITERIA	COMPLIANCE	
3.	Is there any potentially significant rust or corrosion such that wall thinning, pin holes, or breaches are likely or the load bearing capacity is suspect?	<p>Rust shall be assessed in terms of its type, extent, and location. Pitting, pocking, flaking, or dark coloration characterizes potentially significant rust or corrosion. This includes the extent of the payload container surface area covered, thickness, and, if it occurs in large flakes or built-up (caked) areas. Rusted payload containers may not be accepted if:</p> <p>A.1 Rust is present in caked layers or deposits</p> <p>A.2 Rust is present in the form of deep metal flaking, or built-up areas of corrosion products</p> <p>In addition, the location of rust should be noted; for example on a drum: top lid; filter region; locking chine; top one-third, above the second rolling hoop; middle one-third, between the first and second rolling hoops; bottom one-third, below the second rolling hoop; and on the bottom.</p> <p>Payload containers may still be considered acceptable if the signs of rust show up as:</p> <p>A.1 Some discoloration on the payload container</p> <p>A.2 If rubbed would produce fine grit or dust or minor flaking (such that wall thinning does not occur).</p>	YES	NO
4.	<p>Are any of the following apparent?</p> <p>A.1 wall thinning</p> <p>A.2 pin holes</p> <p>A.3 breaches</p>	Wall thinning, pin holes, and breaches can be a result of rust/corrosion (see discussion for #3).	YES	NO
5.	Are there any split seams, tears, obvious holes, punctures (of any size), creases, broken welds, or cracks?	<p>Payload containers with obvious leaks, holes or openings, cracks, deep crevices, creases, tears, broken welds, sharp edges or pits, are either breached or on the verge of being breached. Verify that there is no warpage that could cause the container to be unstable or prevent it from fitting properly in the applicable package.</p>	YES	NO
6.	Is the load-bearing capacity suspect?	The load-bearing capacity could be reduced for excessive rust (see discussion for #3), wall thinning (see discussion for #4), breaches, cracks, creases, broken welds, etc. (see discussion for #5).	YES	NO

Appendix 7 – Payload Container Integrity Checklist (Continued)

CONTAINER EXAMINATION		DISCUSSION OF CRITERIA	COMPLIANCE	
7.	Is the payload container improperly closed?	Inspect the fastener and fastener ring (chine) if applicable for damage or excessive corrosion. Check the alignment of the fastener to ensure that it is in firm contact around the entire lid and the payload container will not open during transportation.	YES	NO
8.	Are there any dents, scrapes, or scratches that make the payload container's structural integrity questionable or prevent the top and bottom surfaces from being parallel?	Deep gouges, scratches, or abrasions over wide areas are not acceptable. If top and bottom surfaces are not parallel, this would indicate that the container is warped. Dents should be less than 1/4 in. deep by 3-inches long and between 1/2 in. to 6-inches wide. All other dents must be examined to determine impact of structural integrity.	YES	NO
9.	Is there discoloration which would indicate leakage or other evidence of leakage of material from the payload container?	Examine the payload container regions near vents, top lid fittings, bottom fittings, welds, seams and intersections of one or more metal sheets or plates. Payload containers must be rejected if evidence of leakage is present.	YES	NO
10.	Is the payload container bulged?	For the purposes of this examination, bulging is indicated by: A.1 A fairly uniform expansion of the sidewalls, bottom, or top (e.g., in the case of a drum, either the top or bottom surface protrudes beyond the planar surface of the top or bottom ring. A.2 A protrusion of the side wall (e.g., in the case of a drum, beyond a line connecting the peaks of the surrounding rolling hoops or a line between a surrounding rolling hoop and the bottom or top ring), or A.3 Expansion of the sidewall (e.g., in the case of a drum, such that it deforms any portion of a rolling hoop).	YES	NO

Appendix 7 – Payload Container Integrity Checklist (Continued)

References to Appendix 7

1. INEEL Engineering Design File “*Waste Container Integrity Evaluation for Storage*”, EDF-RWMC-705, September 25, 1996. Idaho National Engineering and Environmental Laboratory, Idaho Falls, ID
2. Title 49 CFR Part 173, Subpart 475. “*Quality Control Requirements Prior to Each Shipment of Class 7 (Radioactive) Materials.*” *Code of Federal Regulations*, Washington, D.C., Office of the Federal Register, National Archives and Records Administration. (<http://www.ecfr.gov>)
3. DOE/RL-96-57, Section 2.5.5. “*Test & Evaluation Document for the U. S. Department of Transportation Specification 7A type to Packaging*” (Formerly WHC-EP-0558)
(<http://rampac.energy.gov/certinfo/special/noncertified/dot7a/pdot7a.aspx>)

Appendix 8 – Payload Management of TRU Alpha Activity Concentration

1.0 Scope

The policies and methods for the management of TRU alpha activity concentration within each TRU waste payload container disposed of at the WIPP are set out in this appendix. They are based on the definition of TRU waste in the *WIPP LWA*, Public Law 102-579. The LWA defines TRU waste as:

“...waste containing more than 100 nanocuries of alpha emitting transuranic isotopes per gram of waste, with half lives greater than 20 years...” (Sec. 2[18]).

This appendix pertains specifically to the payload management of TRU alpha activity concentration of waste containers selected for overpacking.

2.0 Policies

The Office of National TRU Program has established the following policies for managing TRU alpha activity concentration in compliance with the LWA: (References 1, 2, and 3)

- The TRU alpha activity concentration limit for TRU waste (> 100 nCi/g) applies to the TRU waste stream as a whole.
- Waste containers belonging to a TRU waste stream may vary in their TRU alpha activity concentration, some containing > 100 nCi/g and some containing < 100 nCi/g. Using process knowledge in combination with radioassay measurements to determine the presence of TRU isotopes within the waste stream, generator sites define a TRU waste stream based on its potential to include waste containers with a TRU alpha activity concentration in excess of 100 nCi/g.
- Waste containers belonging to the same TRU waste stream may be overpacked into a payload container (e.g., SWB or TDOP) provided the TRU alpha activity concentration of the payload container exceeds 100 nCi/g.

Appendix 8 – Payload Management of Transuranic (TRU) Alpha Activity Concentration
(Continued)

3.0 Prerequisites for Implementation

- Each waste container selected for payload management must be part of the TRU waste stream identified in the AK Summary Report for that waste stream (References 2 and 3).
- Sites shall submit to the CBFO, for its review and approval, applicable plans and procedures for making TRU waste determinations based on payload management practices that involve the overpacking of waste containers (Reference 2).
- CBFO will notify the EPA of sites seeking such authorization prior to CBFO's approval of a site to manage TRU alpha activity concentration using payload management. The WIPP will not accept payload managed waste for disposal until EPA has received notice (Reference 3).

4.0 Implementation and Practice

- Each TRU waste stream selected for payload management must include in its AK Summary Report an estimate of the total waste volume and the percentage of the waste volume that is above and below 100 nCi/g (It should be noted that this information, although based on the best available AK information, is preliminary and subject to the performance of WIPP certified NDA measurements and cannot and will not be used as a measure of AK accuracy) (Reference 3).
- Each waste container selected for payload management must contain at least one TRU isotope (e.g., Pu-238, Pu-239, Pu-240, Pu-242) whose activity exceeds the LLD of the radioassay system used to characterize the waste (References 2 and 3). The applicability of LLD will vary from system to system and may be on a container basis. Sections 3.3.1 and A.3 of this document provide the applicable requirements for determining and reporting LLDs.
- Each waste container selected for payload management may only be overpacked into a payload container (e.g., SWB or TDOP) with other waste containers from the same TRU waste stream.
- The TRU alpha activity concentration of the payload container is determined according to Sections 3.3.3 and 4.3.3 of this document.

Appendix 8 – Payload Management of Transuranic (TRU) Alpha Activity Concentration
(Continued)

5.0 References

1. Public Law 102-579, 106 Stat.4777, 1992 (as amended by Public Law 104-201, 1996). *Waste Isolation Pilot Plant Land Withdrawal Act* (<http://www.wipp.energy.gov/library/cra/baselinetool/documents/regulatory%20tools/10%20WIPPLWA1996.pdf>)
2. Letter to Mr. Frank Marcinowski (Director, Office of Radiation and Indoor Air, U.S. Environmental Protection Agency) from Dr. Ines R. Triay (Manager, Carlsbad Field Office, U.S. Department of Energy), August 4, 2003
3. Letter to Dr. Ines R. Triay (Manager, Carlsbad Field Office, U.S. Department of Energy) from Mr. Frank Marcinowski (Director, Office of Radiation and Indoor Air, U.S. Environmental Protection Agency), August 8, 2003

Appendix 9 – Radiography Requirements for Contact-Handled Transuranic Waste

9.1 Radiography Requirements for Contact-Handled Waste

Radiography aids in the examination and identification of containerized waste. All activities required to achieve radiography objectives shall be described in site Program documents as identified in Appendix 4, Table B-2. These documents shall include instructions specific to the radiography systems used at the site. This appendix applies to radiography of CH waste; requirements for radiography of RH waste are found in the WCPIP.

A radiography system (e.g., real-time radiography or digital radiography/computed tomography), normally consists of an x-ray producing device, an imaging system, an enclosure for radiation protection, a waste container handling system, an audio/video recording system, and an operator control and data acquisition station. Although these six components are required, it is expected there will be some variation within a given component between sites. The radiography system shall have controls or an equivalent process which allow the operator to control image quality. On some radiography systems, it should be possible to vary the voltage between 150 and 400 kilovolts to provide an optimum degree of penetration through the waste.

To perform radiography, the waste container is scanned while the operator views the video monitor. An audio/video recording shall be made of the waste container scan and is maintained as a non-permanent record. A radiography data form shall also be used to document the Waste Matrix Code; verify there are no ignitable, reactive, or corrosive wastes present by verification that there is no observable liquid in excess of the waste acceptance criteria and there are no compressed gases; and estimated waste material parameter weights of the waste.

The estimated waste material parameter and weights for CH waste should be determined by compiling an inventory of waste items and packaging materials. The items on this inventory should be sorted by waste material parameter and combined with a standard weight look-up table to provide an estimate of waste material parameter weights.

Containers whose contents prevent full examination of the remaining contents shall be subject to visual examination unless the site certifies that visual examination would provide no additional relevant information for that container using acceptable knowledge for the waste stream.

For containers which contain classified shapes and undergo radiography, the radiography recording shall be considered classified information. The radiography data forms will not contain classified information.

Appendix 9 – Radiography Requirements for Contact-Handled Waste (Continued)

9.2 Radiography Training

The radiography system involves qualitative and semi-quantitative evaluations of visual displays. Operator training and experience are the most important considerations for assuring quality controls in regard to the operation of the radiography system and for interpretation and disposition position of radiography results. Only trained and qualified radiography operators shall be allowed to operate radiography equipment.

Standardized training and qualification requirements for radiography operators shall be based upon existing industry standard training requirements and shall comply with the training and qualification requirements of this document and the QAPD.

The site shall develop a training program that provides radiography operators with both formal and OJT. Radiography operators shall be instructed in the specific waste generating practices, typical packaging configurations, and associated waste material parameters expected to be found in each Waste Matrix Code at the site.

The OJT and apprenticeship shall be conducted by an experienced, qualified radiography operator prior to qualification of the training candidate. The training programs shall be site-specific due to differences in equipment, waste configurations, and the level of waste characterization efforts. For example, certain sites use digital radiography equipment, which is more sensitive than real-time radiography equipment. In addition, the particular physical forms and packaging configurations at each site will vary; therefore, radiography operators shall be trained on the types of waste that are generated, stored, or characterized at that particular site.

The training program shall contain the following elements:

- Project Requirements
- State and Federal Regulations
- Basic Principles of Radiography
- Radiographic Image Quality
- Radiographic Scanning Techniques
- Application Techniques
- Radiography of Waste Forms
- Standards, Codes, and Procedures for Radiography
- Site-Specific Instruction

Appendix 9 – Radiography Requirements for Contact-Handled Waste (Continued)

The training program shall also contain OJT which addresses:

- System Operation
- Identification of Packaging Configurations
- Identification of Waste Material Parameters
- Weight and Volume Estimation
- Identification of Prohibited Items

Radiography test drums shall contain items common to the waste streams to be generated and stored at the site. The test drums shall be divided into layers with varying packing densities or different drums may be used to represent different situations that may occur during radiography examination at the site. Test drums shall be representative of the waste matrix codes for which WSPF approval is sought. Test drums shall be examined and successfully identified prior to waste stream shipment. The following is a list of required elements of a radiography test drum:

- A punctured aerosol can
- Pigtailed polyliners (horsetail bag)
- Pair of coveralls
- Empty bottle
- Irregular shaped pieces of wood
- Empty one-gallon paint can
- Full container
- Aerosol can with fluid
- One-gallon bottle with three tablespoons of fluid
- One-gallon bottle with one cup of fluid (upside down)
- Leaded glove or leaded apron
- Wrench

These items shall be successfully identified by the operator as part of the qualification process. Qualifications of radiography operators shall, at a minimum, encompass the following requirements:

- Successfully pass a comprehensive exam based upon training enabling objectives. The comprehensive exam will address all of the radiography operations, documentation, characterization and procedural elements stipulated in this WAC.
- Perform a practical capability demonstration in the presence of appointed site radiography SME. The person will be an experienced radiography operator who is also qualified as an OJT trainer.

Appendix 9 – Radiography Requirements for Contact-Handled Waste (Continued)

Re-qualifications of operators are based on evidence of continued satisfactory performance (primarily audio/video recording reviews), and shall be done at least every two years. Unsatisfactory performance will result in disqualification. Unsatisfactory performance is defined as the misidentification of a prohibited item in a training drum or a score of less than 80 percent on the comprehensive exam. Retraining and demonstration of satisfactory performance are required before a disqualified operator is again allowed to operate the radiography system.

A training drum with internal containers of various sizes shall be scanned semiannually by each operator. The audio/video recording shall then be reviewed by a supervisor to ensure that operator's interpretations remain consistent and accurate. Imaging system characteristic shall be verified on a routine basis.

9.3 Quality Control

Independent replicate scans and replicate observations of the video output of the radiography process shall be performed under uniform conditions and procedures. Independent replicate scans shall be performed on one waste container per day or once per testing batch, whichever is less frequent. Independent observation of one scan (not the replicate scan), shall be made once per day or once per testing batch, whichever is less frequent, by a qualified radiography operator other than the individual who performed the first examination. A testing batch is a suite of waste containers undergoing radiography using the same testing equipment. A testing batch can be up to 20 waste containers without regard to waste matrix.

Oversight functions include periodic audio/video recording reviews of accepted waste containers by a qualified radiography operator other than the operator who dispositioned the waste container. The results of this independent verification shall be made available to the radiography operator.

9.4 Data Review and Validation

A testing BDR for data validation and QA purposes is required when radiography is used to characterize waste. A testing BDR (or equivalent), includes data pertaining to radiography for up to 20 waste containers or samples.

Appendix 9 – Radiography Requirements for Contact-Handled Waste (Continued)

All measurement data is reviewed and approved by qualified personnel prior to being reported. Reviews shall meet the requirements of the QAPD. At a minimum, the data is reviewed by an independent technical reviewer and approved by the SPM. This review is performed by an individual other than the data generator who is qualified to have performed the initial work. The independent technical reviewer shall verify, at a minimum, the following information:

- Data generation and reduction is conducted in a technically correct manner in accordance with the methods used (verification of procedure and revision).
- Data is reported in the proper units and correct number of significant figures.
- Calculations are verified by a valid calculation program, a spot check of verified calculation programs, and/or 100 percent check of all hand calculations.
- Values that are not verifiable to within rounding or significant difference discrepancies shall be rectified prior to completion of independent technical review.
- The data is reviewed for transcription errors.
- The testing QA documentation for BDRs is complete and includes, as applicable, raw data, calculation records, calibration records (or references to an available calibration package), list of containers in the batch, and QC sample results. Corrective action is taken to ensure that all BDRs are complete and include all necessary raw data prior to completion of the independent technical review.
- QC sample results are within established control limits and, if not, the data have been appropriately dispositioned using the nonconformance process. This includes complete summarized qualitative and quantitative data for all waste containers with data flags or qualifiers.
- Radiography tapes are reviewed (independent observation) on a waste container basis at a minimum of once per testing batch or once per day of operation, whichever is less frequent.
- The container contains no indication that there is liquid in excess of this waste acceptance criteria, no indication of compressed gas, no indication of incompatible wastes, and the physical form matches the Waste Matrix Code.
- The appropriate QAOs have been met.

Appendix 9 – Radiography Requirements for Contact-Handled Waste (Continued)

| All data must be approved by the SPM. The SPM shall verify, at a minimum, the following information:

- Data generation-level independent technical review, validation, and verification have been performed as evidenced by the completed review checklists and appropriate signature release. Batch data review checklists are complete.
- BDRs are complete and data are properly reported (e.g., data are reported in the correct units and with the correct number of significant figures).
- Data meet all applicable Quality Assurance Objectives.

The SPM shall provide a SPM Summary and a Data Validation Summary for each BDR. These reports may be combined and shall consist of a detailed checklist documenting that the batch has been adequately reviewed and that the data meet program objectives.

To ensure that data of known and documented quality are generated, each participating measurement facility shall implement a documented facility QA program. Facility QA programs shall specify qualitative and quantitative acceptance criteria for the QC checks of this program, and corrective actions to be taken when these criteria are not satisfied. Only appropriately trained and qualified personnel shall be allowed to perform data validation/review.

Appendix 10 – Visual Examination Requirements for Contact-Handled Transuranic Waste

10.1 Visual Examination Requirements for Contact-Handled Waste

This appendix applies to visual examination requirements for CH waste; requirements for visual examination of RH waste are found in the WCPIP.

Contact handled waste container contents may be verified directly by performing VE on the waste container contents. Visual examination may also be performed during packaging or repackaging of waste. The CCP performs VE in accordance with the procedures found in Appendix 4, Table B-3.

VE does not require audio/video recordings of the examination; the examination is documented on a data form and certified with signatures from two qualified VE operators. If the second operator cannot verify the descriptions of the first operator, corrective actions will be taken in accordance with the established QA Program.

VE shall be conducted to describe all contents of a waste container and includes estimated or measured weights of the contents. The description shall clearly identify all discernible waste items, packaging materials, and waste material parameters in the waste container. VE activities are documented on VE data forms.

VE video/audio recordings of containers that contain classified shapes shall be considered classified information. Visual examination data forms will not contain classified information.

Appendix 10 – Visual Examination Requirements for Contact-Handled Transuranic Waste (Continued)

10.2 Visual Examination Training

VE shall consist of a semi-quantitative and qualitative evaluation of the waste container contents and may be recorded on audio/video recording media. Standardized training for VE includes both formal classroom training and OJT. Personnel performing VE shall be instructed in the specific waste generating processes, typical packaging configurations, and the waste material parameters expected to be found in each Waste Matrix Code at the site. The OJT and apprenticeship shall be conducted by an operator experienced and qualified in VE prior to qualification of the candidate. The training shall be site-specific to include the various waste configurations at the site. For example, the particular physical forms and packaging configurations at each site will vary so operators shall be trained on types of waste that are generated, stored, or characterized at that particular site. VE operators need only be trained to the physical forms and packaging configurations used on the waste stream that they are examining and packaging. VE personnel shall be requalified once every two years.

Training shall address the following required elements:

- Project Requirements
- State and Federal Regulations
- Application Techniques
- Site-Specific Instruction

Training shall also include OJT that addresses:

- Identification of Packaging Configurations
- Identification of Waste Material Parameters
- Weight and Volume Estimation
- Identification of Prohibited Items

The SPM appoints each Visual Examination Expert (VEE) and ensures the appointment is facility-specific. The VEE shall be familiar with the waste generating processes that have taken place at the site and will also be familiar with all types of waste being characterized at that site. The VEE shall be responsible for the overall direction and implementation of the visual examination at that facility. The VEE shall receive training in the same elements as the visual examination personnel, including both formal training and OJT. Qualification of a VEE shall be based on familiarity with waste generating processes, familiarity with the types of waste being characterized, and meeting the training requirements discussed above. Consistent with other VE personnel, the VEE shall be requalified once every two years. CCP-QP-002 specifies the selection, qualification and training requirements for the VEE.

Appendix 10 – Visual Examination Requirements for Contact-Handled Transuranic Waste (Continued)

10.3 Method

Visual examination recorded on video/audio media meet the following minimum requirements:

- The audio/video media shall record the waste packaging event for the container such that all waste items placed into the container are recorded in sufficient detail and shall contain an inventory of waste items in sufficient detail that another trained VE operator can identify the associated waste material parameters.
- The video/audio media shall capture the waste container identification number.
- The personnel loading the waste container shall be identified on the video/audio media or on packaging records traceable to the loading of the waste container.
- The date of loading of the waste container will be recorded on the video/audio media or on packaging records traceable to the loading of the waste container.

VE performed using two operators shall meet the following minimum requirements:

- At least two site personnel who witnessed the packaging of the waste shall approve the data forms or packaging records attesting to the contents of the waste container.
- The data forms or packaging records shall contain an inventory of waste items in sufficient detail that a trained VE operator can identify the associated waste material parameters.
- The container identification number shall be recorded on the data forms or packaging records.

A description of the waste container contents is recorded on a VE data form. The description clearly identifies all waste material parameters and provides enough information to estimate weights of waste material parameters. In cases where bags are not opened, a brief written description of the contents of the bags shall contain an estimate of the amount of each waste type in the bags. The written records of VE are supplemented with the audio/videotape recording, if applicable.

Appendix 10 – Visual Examination Requirements for Contact-Handled Transuranic Waste (Continued)

10.4 Data Review and Validation

A testing BDR for data validation and QA purposes is required when VE is used to characterize waste. A BDR (or equivalent), includes data pertaining to VE for up to 20 waste containers or samples.

All measurement data is reviewed and approved by qualified personnel prior to being reported. Reviews meet the requirements of the QAPD. At a minimum, the data is reviewed by an independent technical reviewer and approved by the SPM. This review is performed by an individual other than the data generator who is qualified to have performed the initial work. The independent technical reviewer shall verify, at a minimum, the following information:

- Data generation and reduction were conducted in a technically correct manner in accordance with the methods used (verification of procedure and revision).
- Data were reported in the proper units and correct number of significant figures.
- Calculations have been verified by a valid calculation program, a spot check of verified calculation programs, and/or 100 percent check of all hand calculations.
- Values that are not verifiable to within rounding or significant difference discrepancies must be rectified prior to completion of independent technical review.
- The data have been reviewed for transcription errors.
- The testing QA documentation for BDRs is complete and includes, as applicable, raw data, calculation records and list of containers in the batch. Corrective action will be taken to ensure that all BDRs are complete and include all necessary raw data prior to completion of the independent technical review.
- The container contains no indication that there is liquid in excess of this waste acceptance criteria, no indication of compressed gas, no indication of incompatible wastes, and the physical form matches the Waste Matrix Code.
- The appropriate QAOs have been met.

Appendix 10 – Visual Examination Requirements for Contact-Handled Transuranic Waste (Continued)

| All data must be approved by the SPM. The SPM shall verify, at a minimum, the following information:

- Data generation-level independent technical review, validation, and verification were performed as evidenced by the completed review checklists and appropriate signature release. Batch data review checklists are complete.
- BDRs are complete and data are properly reported (e.g., data are reported in the correct units and with the correct number of significant figures).
- Data meet all applicable Quality Assurance Objectives.

The SPM shall provide a SPM Summary and a Data Validation Summary for each BDR. These reports may be combined and shall consist of a detailed checklist documenting that the batch has been adequately reviewed and that the data meet program objectives.

To ensure that data of known and documented quality are generated, each participating measurement facility shall implement a documented facility QA program. Facility QA programs shall specify qualitative and quantitative acceptance criteria for the QC checks of this program, and corrective actions to be taken when these criteria are not satisfied. Only appropriately trained and qualified personnel shall be allowed to perform data validation/review.

CCP-PO-027

Revision 5

CCP/TRU Waste Processing Center/Oak Ridge National Laboratory Interface Document

EFFECTIVE DATE: 10/02/2013

Mike Ramirez

PRINTED NAME

APPROVED FOR USE

RECORD OF REVISION

Revision Number	Date Approved	Description of Revision
0	10/02/2007	Initial issue.
1	02/17/2010	Revised due to the deployment of the Mobile IQ3 Nondestructive Assay (NDA) system to the transuranic (TRU) Waste Processing Center (TWPC).
2	04/22/2010	Revised to remove the requirement to apply Central Characterization Project (CCP) hold tags to containers which are returned to the host facility as permanent rejects.
3	12/29/2010	Minor revision to update references to the <i>Waste Isolation Pilot Plant Hazardous Waste Facility Permit</i> .
4	10/01/2012	Revised to incorporate Nuclear Waste Partnership (NWP) transition changes.
5	10/02/2013	Revised to incorporate Class 2 Permit Modification changes, dated March 13, 2013 and to include the freeze file as of 11/20/2012. Changes in the freeze file include: <ol style="list-style-type: none"> 1. Measuring and testing equipment (M&TE) changes proposed by S. Burns to make CCP-PO-027 similar to other interface documents that were affected by CAR-LANL-003-12. 2. An "Any documentation required for Central Characterization Program (CCP) to perform its scope" added. 3. Training information in Section 4.1.3 revised. 4. Removed references to drum venting system (DVS) as equipment is no longer on site. 5. Section 4.13.6 [A] revised to generalize CCP Project Manager (PM's) approval of CCP-CM-001, <i>CCP Equipment Change Authorization and Documentation</i> information. 6. "CCP or CCP Vendor owned equipment" added where needed.

TABLE OF CONTENTS

1.0 PURPOSE 5

2.0 REQUIREMENTS 8

3.0 RESPONSIBILITIES 9

 3.1 Initial Setup 9

 3.2 Operations 9

 3.3 CCP Site Project Manager (SPM) 11

 3.4 CCP Quality Assurance (QA) Engineer 12

 3.5 Host Facility Subcontract Technical Representative (STR)/Designee
 (Host Facility Management Position) 13

 3.6 CCP Vendor Project Manager (VPM) 14

4.0 INTERFACE 15

 4.1 Training and Qualification 15

 4.2 Container Management 16

 4.3 Deficiencies and Nonconformances 17

 4.4 Visual Examination (VE) 18

 4.5 Nondestructive Examination (NDE) 19

 4.6 Nondestructive Assay (NDA) 19

 4.7 Radiological Characterization (Dose-to-Curie [DTC]) 20

 4.8 Waste Sampling and Analysis Methods 20

 4.9 Flammable Gas Analysis (FGA) 20

 4.10 Source Control 20

 4.11 Acceptable Knowledge (AK) 21

 4.12 Data Validation and Reconciliation 22

 4.13 Measuring and Test Equipment (M&TE) 22

 4.14 Work Standards 23

 4.15 TRU Waste Certification and WIPP Waste Information System/Waste
 Data System (WWIS/WDS) Data Entry 26

 4.16 Transportation 26

 4.17 Quality Assurance (QA) 27

 4.18 Project Control 27

 4.19 Procedures 28

 4.20 Document Transmittals 30

 4.21 Authorization Basis (AB) and Configuration Management 32

 4.22 Notification 33

 4.23 Procurement 33

 4.24 Occurrence Reporting and Processing System (ORPS) and
 Price-Anderson Amendments Act (PAAA) 33

5.0 RECORDS 35

6.0 OVERSIGHT 36

LIST OF FIGURES

Figure 1 – Nuclear Waste Partnership – TWPC 37

1.0 PURPOSE

The Central Characterization Program (CCP) is a mobile program designed to characterize, certify, and transport Transuranic (TRU) waste from various U.S. Department of Energy (DOE) sites to the Waste Isolation Pilot Plant (WIPP) in New Mexico. The CCP is operated by Nuclear Waste Partnership (NWP), at the direction of the DOE Carlsbad Field Office (CBFO).

CBFO has deployed the CCP to the TRU Waste Processing Center (TWPC), located on the Oak Ridge National Laboratory (ORNL). CCP has been deployed to this site to process both the legacy contact-handled (CH) and remote-handled (RH) TRU waste. The Oak Ridge Operations Office (ORO) manages all activities at the ORNL, including waste management, for the DOE.

This document defines the interfaces between the CCP and the Host facility organization(s) necessary to perform this work. This document is intended to clarify and expand on details contained in the Inter-Entity Work Order (IEWO) with its associated upper tier Statement of Work (SOW) and program documents. It is not intended to be used in lieu of a task-specific subcontract.

CCP has primary responsibility for TRU waste characterization activities. CCP services include compilation, reporting, and confirmation of Acceptable Knowledge (AK), Nondestructive Examination (NDE), Nondestructive Assay (NDA), Radiological Characterization (RC), Visual Examination (VE), Flammable Gas Analysis (FGA) for transportation, data validation and verification, waste certification, WIPP Waste Information System/Waste Data System (WWIS/WDS) data entry, and transportation activities.

These services will be performed with CCP and/or Host facility equipment with appropriate DOE/CBFO-certified procedures. All services provided by CCP will comply with DOE/WIPP-02-3122, *Transuranic Waste Acceptance Criteria for the Waste Isolation Pilot Plant (WIPP WAC)*, DOE/WIPP-02-3214, *Remote-Handled TRU Waste Characterization Program Implementation Plan (WCPIP)*, requirements, including those pertaining to waste disposal and transportation. This work will be performed under a DOE/CBFO-certified quality assurance (QA) program that meets the requirements defined in DOE/CBFO-94-1012, *U.S. Department of Energy Carlsbad Field Office Quality Assurance Program Document (QAPD)*. CCP will also support TWPC in their mission to dispose of Low Level and Low Level Mixed Waste (LLW/MLLW). This support will be primarily in providing NDE and NDA data for LLW/MLLW waste containers. CCP will work with the TWPC to ensure that the data meets the requirements for TWPC to ship the LLW/MLLW.

The Host facility may augment CCP characterization efforts as requested by CCP. Where required, all augmented services provided by the Host facility shall comply with CCP-certified procedures.

The Host facility has primary responsibility for assuring that requirements for safety, (i.e., Radiological Controls, Occupational Safety and Health, Industrial Hygiene, and Environment/Hazardous Waste programs), adherence to TWPC Safety Authorization Basis and Emergency Management Program Requirements. Additionally, the Host site is responsible for assuring that any chemical sampling and analysis deemed necessary by the WIPP Permittees, and other areas are met for CCP activities, and that CCP activities support the scheduled objectives.

Throughout this document the Host facility Management and Operating (M&O) Contractors' responsibilities are limited to the specific CCP activities being conducted within their facilities.

The CCP will certify DOE TRU waste at the ORNL for disposal in accordance with the certification authority that has been granted by the DOE/CBFO.

This document addresses specific requirements for the following areas:

- Training and qualification
- Container management
- Deficiencies and nonconformances
- VE
- NDA
- Radiological Characterization (Dose-to-Curie [DTC]) (including sampling and analysis, if required)
- NDE
- Additional Waste Sampling Analysis
- Flammable Gas Analysis for transportation requirements
- Performance Demonstration Program (PDP)
- Source control

- AK
- Data validation and reconciliation
- Measuring and Test Equipment (M&TE)
- Work standards
- QA
- Project Control
- Procedures
- Document Transmittals
- Procurements
- Records
- TRU Waste Certification and WWIS/WDS data entry
- Transportation
- Configuration Management

The Host facility will report conditions or concerns that have or may have safety, health, QA, security, and operational or environmental implications to CCP and to the DOE ORO. CCP shall report their similar issues to the Host facility and to DOE/CBFO.

2.0 REQUIREMENTS

This document implements the applicable requirements of the following:

- CCP-PO-001, *CCP Transuranic Waste Characterization Quality Assurance Project Plan*
- CCP-PO-002, *CCP Transuranic Waste Certification Plan*
- CCP-PO-003, *CCP Transuranic Authorized Methods for Payload Control (CCP CH-TRAMPAC)*
- CCP-PO-005, *CCP Conduct of Operations*
- CCP-PO-026, *CCP Configuration Management*
- CCP-PO-505, *CCP Remote-Handled Transuranic Waste Authorized Methods for Payload Control (CCP RH-TRAMPAC)*
- DOE/WIPP-02-3183, *CH Packaging Program Guidance*
- DOE/WIPP-02-3214, *Remote-Handled TRU Waste Characterization Program Implementation Plan*
- DOE/WIPP-02-3283, *RH Packaging Program Guidance*
- DOE/WIPP-06-3345, *Waste Isolation Pilot Plant Flammable Gas Analysis*
- DOE/WIPP-94-1012, *U. S. Department of Energy Carlsbad Field Office Quality Assurance Program Document (QAPD)*
- WP13-1, *Nuclear Waste Partnership LLC, Quality Assurance Program Description*

3.0 RESPONSIBILITIES

3.1 Initial Setup

3.1.1 CCP is responsible for the following during initial setup:

- [A] Providing information and procedures to the Host facility Subcontract Technical Representative (STR)/Designee, who will coordinate facility, QA, and Environmental Safety & Health (ES&H) reviews to determine satisfactory compliance with Host facility safety basis requirements, RC requirements, and other safety and operational requirements.
- [B] Completing readiness activities as needed to support authorization of CCP activities at the Host facility.
- [C] Providing project support to complete administrative reviews and approvals of technical and administrative procedures or processes.
- [D] Mobilization of project staff.

3.2 Operations

3.2.1 CCP is responsible for the following activities to support start-up operations:

- [A] Performing system start-up and calibration of characterization equipment at the Host facility.
- [B] Participating successfully in the PDP, as needed.
- [C] Performing safety walk-downs prior to operation.
- [D] Responding to and resolving assessment and surveillance findings for CCP start-up activities.
- [E] Ensuring CCP and Host facility personnel are trained and qualified in accordance with the requirements specified in Section 4.1.
- [F] Successful completion of DOE/CBFO Certification Audit.

- [G] Provides container tracking support for the containers introduced into characterization activities to ensure characterization completion using the CCP container management system.

3.2.2 The Host facility provides the following support for CCP activities:

- [A] Radiological controls as needed to support characterization activities, including:
- Radiological postings.
 - Radiation protection surveys, both initial and routine, on characterization equipment and provide approved survey reports to the CCP Site Project Manager (SPM) as required.
 - Personnel dosimetry.
 - Dose assessments and dosimetry reports.
 - Calibrated and source checked survey instrumentation, as required.
 - Radiological Work Permits (RWP) to support CCP activities, as required.
 - Bioassay sample collection, evaluation, and reports will be provided by Host site, if applicable. The CCP TWPC Project Manager or CCP Vendor Project Manager (VPM) will be notified of any positive bioassay results as soon as is reasonably possible.
 - Radiological source controls.
- [B] Provides adequate facilities for the safe performance of characterization and transportation activities.
- [C] Provides site-specific training, as needed, to ensure safe operations within the Host facility.
- [D] Provides IS&H support, as needed.

- [E] Provides Fire Protection and Emergency Management support, as needed.
- [F] Provides Authorization Basis (AB) oversight, including Unreviewed Safety Question (USQ) evaluations.
- [G] Provides environmental impact oversight and support, as needed.
- [H] Provides on-site container transportation.
- [I] Provides container handling, inventory control, and storage location tracking using the TWPC Container Tracking system.
- [J] Provides personnel to be trained and qualified under the CCP program as needed to support CCP activities such as VE, Radiological Characterization (Dose-to-Curie [DTC]), etc., if applicable.
- [K] Coordinates and obtains document classification reviews as required to allow the public release of documents such as the AK Summary Report.
- [L] Provides calibrated M&TE for use in characterization or obtains calibration service for CCP provided M&TE.
- [M] Provides waste packaging materials and other equipment/materials purchased and inspected in accordance with the Qualified Supplier List (QSL) approved program.
- [N] Provides hazardous waste manifesting, bill of lading, and notifications for transportation.

3.3 CCP Site Project Manager (SPM)

- 3.3.1 Functions as CCP's primary interface and point-of-contact between CCP and the Host facility for all waste characterization and certification activities.
- 3.3.2 Ensures CCP and Host facility personnel are trained and qualified to perform WIPP-compliant TRU waste characterization activities at the Host facility prior to commencement of work activities.

- 3.3.3 Confirms sufficient characterization equipment is available to perform the required characterization activities at the Host facility.
 - 3.3.4 Provides the AK Summary Report for DOE waste characterized by the CCP to the Host facility STR/Designee.
 - 3.3.5 Works in conjunction with Host facility operations to establish and maintain reasonable and appropriate throughput of waste containers.
 - 3.3.6 Ensures that project level verification and validation of batch data report (BDRs) are completed.
 - 3.3.7 Provides evidence to the Host facility STR/Designee of PDP participation and successful completion.
 - 3.3.8 Provides status on CCP characterization operations to the Host facility STR/Designee.
- 3.4 CCP Quality Assurance (QA) Engineer
- 3.4.1 Functions as CCP's primary interface and point-of-contact for QA matters between CCP, Host facility, DOE/ORNL, and DOE/CBFO.
 - 3.4.2 Validates the Nonconformance Reports (NCRs) generated by CCP personnel performing characterization activities at the Host facility.
 - 3.4.3 Provides copies of NCRs for information to the Host facility STR/Designee as requested.
 - 3.4.4 Ensures that NCRs are dispositioned in a timely manner in accordance with CCP-QP-005, *CCP TRU Nonconforming Item Reporting, and Control*.
 - 3.4.5 Ensures receipt inspection in accordance with CCP-QP-026, *CCP Inspection Control*, of items and services procured by CCP is performed.
 - 3.4.6 Provides the Host facility STR/Designee with a copy of the semi-annual trending summary reports in accordance with CCP-QP-014, *CCP Data Analysis and Trending*.

- 3.5 Host Facility Subcontract Technical Representative (STR)/Designee (Host Facility Management Position)
 - 3.5.1 Functions as the Host facility primary interface and point-of-contact between the Host facility and CCP.
 - 3.5.2 Ensures any USQs that may be needed for proposed modifications to CCP hardware, software, or procedures are prepared and approved by the appropriately qualified Host facility personnel prior to CCP implementing the proposed modification.
 - 3.5.3 Ensures needed site infrastructure support (e.g., Radiological, IS&H) is available for waste characterization.
 - 3.5.4 Ensures documentation of completed Host facility-specific training is delivered to the CCP SPM.
 - 3.5.5 Coordinates review, provides comments, and approves comment resolutions on procedures listed in Section 4.19.3 for the purpose of ensuring facility safety requirements are met.
 - 3.5.6 Provides local personnel to support characterization operations such as VE. Also provides personnel to support the CCP AK Experts (AKE) in the collection of required documents and procedures as needed, if applicable.
 - 3.5.7 Ensures that periodic QA surveillances of CCP operations by the Host facility are conducted and reported to CCP.
 - 3.5.8 Distributes the CCP documents listed in Section 4.19.3 to Host facility reviewers as required by the Host facility administrative controls.
 - 3.5.9 Reviews and concurs on documents in Section 4.19.3 in accordance with CCP-QP-010, *CCP Document Preparation, Approval and Control*.
 - 3.5.10 Provides facilities, construction services, utilities, phone services, office services, and supplies as defined by the respective CCP and TWPC contracts with DOE.

- 3.6 CCP Vendor Project Manager (VPM)
- 3.6.1 Monitors the List of Qualified Individuals (LOQI) daily to confirm that only qualified personnel perform waste characterization activities.
 - 3.6.2 Functions as CCP's primary interface and point-of-contact between CCP and the Host facility STR/Designee for characterization field operations.
 - 3.6.3 Provides daily pre-operations briefing. The daily pre-operations briefing may be combined with the Host facility's pre-operations briefing as agreed between the CCP TWPC Project Manager and Host facility operations management.
 - 3.6.4 Ensures that in-process documents and the documents listed in Section 4.20.2 are transmitted to the CCP Project Office as soon as practicable in accordance with CCP-QP-008, *CCP Records Management*.
 - 3.6.5 Ensures applicable manufacturers Material Safety Data Sheets (MSDSs) are provided, maintained, and available to support operations and meet the requirements of the TWPC chemicals management program.
 - 3.6.6 Provides oversight of field operations to ensure safe, efficient operations.
 - 3.6.7 Supervises day-to-day waste characterization activities.
 - 3.6.8 Notifies the CCP TWPC Project Manager and the Host facility Facility Manager/Operations Manager of any abnormal events associated with safe operation of CCP characterization activities for reporting purposes.
 - 3.6.9 Obtains STR and Facility Site Representative (FSR) review and concurrence prior to issuance/approval of an Operator Aid or Standing Order that could affect changes to equipment operation or configuration.

4.0 INTERFACE

4.1 Training and Qualification

- 4.1.1 CCP personnel or Host facility personnel who perform work under CCP procedures will be trained and qualified to WIPP requirements in accordance with CCP-QP-002, *CCP Training and Qualification Plan*.
- 4.1.2 Host site will schedule and provide forms as necessary for individuals that are required to take HAZWOPER physical. CCP will be responsible for the cost of the physicals.
- 4.1.3 Administrative work, such as BDR reviews that require no access to characterization activities or processes, may be completed by personnel who have not completed the Host facility required site-specific training. Personnel who have not completed Host facility required site-specific training will not be allowed unescorted access to the characterization activities.
- 4.1.4 CCP and Host facility personnel assigned to field operations must complete the Host facility required site-specific training. The STR will ensure that the Oak Ridge site-specific training documentation is sent to CCP training and notification is made to the SPM.
- 4.1.5 Both the CCP training and Host facility required site-specific training must be completed prior to the individual being assigned to perform independent work at the Host facility.
- 4.1.6 A LOQI will be monitored by the CCP VPM to confirm CCP and Host facility personnel assigned to CCP to perform work are in compliance.
- 4.1.7 Host site will be responsible for notification of any Safety Basis changes to action levels that will impact notification requirements. CCP will ensure that notification are made by offsite review personnel (e.g., Independent Technical Reviewer [ITR], NDA Expert Analyst [EA], SPM) for Host site safety basis notification action levels. The Host site action levels will be included in a CCP Standing Order. Any revisions to the Host site action levels will be issued in a revision to the applicable CCP Standing Order.

4.2 Container Management

- 4.2.1 The Host facility is responsible for container movement, storage, and Documented Safety Analysis (DSA) compliance.
- 4.2.2 The Host facility provides the dose rate and surface contamination information necessary to certify TRU waste containers for disposal.
- 4.2.3 CCP is responsible for container management throughout the CCP characterization process. CCP will perform container management in accordance with CCP-TP-068, *CCP Standardized Container Management*, or CCP-TP-509, *CCP Remote-Handled Transuranic Container Tracking*.
- 4.2.4 CCP AK personnel will maintain a list of characterization-eligible containers from each waste stream identified. When repackaging or VE of a waste container is required, the following container Identification (ID) scheme will be followed as applicable.
- [A] When the waste from one TRU input container results in one TRU output container, the container ID from the Input container is to be used with the addition of an "A" suffix as the ID number on the output container (e.g., input container is X10C0057, the output container will be labeled as X10C0057A). This scheme is also to be applied to re-label waste containers that do not require repackaging or VE.
- [B] When the waste from one TRU input container results in the creation of two or more TRU output containers, a standard convention of adding a sequential single or, if required, double letter suffix to the input container's ID number is used to label the TRU output containers produced (e.g., input container is X10C0057, the first output container is X10C0057A, and the second output container is X10C0057B).
- [C] When the waste from two or more TRU input containers from the same waste stream are combined into one output container, the container ID number from the first input container is used with the addition of an "A" suffix as the ID number on the TRU output container (e.g., X10C0057 and X10C0059 are combined into one output container. X10C0059 was the first drum repackaged. The output container is X10C0059A).

- [D] When prohibited items are segregated and placed into a separate output container from the bulk of the waste, a new container ID is applied to the segregated waste container. Prohibited items from more than one input waste container may be placed into the segregated waste container provided the input containers are from the same waste stream.
- [E] CCP AK personnel are to be notified as soon as is practical of waste container ID number changes resulting from the actions in steps 4.2.4[A] through [D].

4.3 Deficiencies and Nonconformances

4.3.1 CCP-Identified Deficiencies and Nonconformances

NOTE

The NWP QA Engineer will confirm appropriate closure of the deficiencies that are resolved by CCP.

- [A] If CCP personnel identify a nonconformance condition associated with a waste container during the CCP characterization or certification process, CCP personnel will initiate an NCR in accordance with CCP-QP-005.
- [B] If the deficiency or nonconformance is an issue that will be resolved by CCP, CCP will provide notification (e.g., verbal, or e-mail as required by the Host facility) to the Host facility STR/Designee. The Host facility STR/Designee may request any supporting documentation needed by the Host facility. CCP will ensure appropriate closure of the deficiency. A copy of any CCP NCR related to DOE TRU waste at the TWPC will be provided to the Host facility STR/Designee upon request.
- [C] If the deficiency or nonconformance cannot be resolved by the CCP (e.g., does not meet TRU waste acceptance criteria), then the specific container will be returned with all required documentation to the Host facility for disposition. Once the specific container(s) have been returned to the Host facility, the NCR will remain open if the container will be remediated and returned to CCP or will be closed if the condition is such that the container will not be returned to CCP (e.g., NDA indicates the container is less than 100 nanocuries per gram [nCi/g] TRU alpha activity

concentration). CCP will not apply CCP HOLD TAGS to those containers which are returned as permanent rejects from CCP. Instead, CCP will affix a physical indicator (sticker or tag) that the container is returned and not certifiable for shipment to WIPP.

- [D] CCP personnel will immediately notify the CCP VPM of any abnormal event associated with the safe operation of CCP characterization activities. The CCP VPM will notify the CCP TWPC Project Manager and the Host facility Facility Manager/Operations Manager of the abnormal event.

4.3.2 Host Facility-Identified Deficiencies and Nonconformances

- [A] If Host site personnel identify a nonconforming condition during container movement or handling (e.g., missing container identification tag, duplicate container number), Host site personnel will initiate nonconformance documentation in accordance with the Host site QA Program.
- [B] The STR will ensure a copy of any NCR affecting the CCP program is provided to the SPM for incorporation into the CCP Nonconformance Tracking System (as required).
- [C] The STR will notify the CCP SPM of any procedure deficiencies, identified by TWPC personnel, which relate to characterization activities.
- [D] The STR will notify the Transportation Certification Official (TCO) or Mobile Loading Unit Team Lead of any procedure deficiencies, identified by Host site personnel, which relate to payload assembly or loading activities.

4.4 Visual Examination (VE)

- 4.4.1 CCP will conduct VE Operations in accordance with CCP-TP-113, *CCP Standard Contact-Handled Waste Visual Examination (CH)*, as needed, or CCP-TP-500, *CCP Remote-Handled Waste Visual Examination* using a facility provided by the Host facility.
- 4.4.2 The Host facility will be responsible for all maintenance and repairs to the VE facility.

4.4.3 The Host facility will provide personnel to qualify and perform VE in accordance with CCP-TP-113 or CCP-TP-500, if applicable.

4.5 Nondestructive Examination (NDE)

4.5.1 CCP will perform NDE using a CCP-provided unit. Containers rejected by NDE will be dispositioned consistent with the requirements of Section 4.3.

4.5.2 CCP may perform screening services using a CCP provided unit to provide information on prohibited items for use in TWPC repackaging operations. CCP-TP-066, *CCP Radiography Screening Procedure for Prohibited Items*, will be used for any screening operations. The report provided from CCP-TP-066 will include any prohibited items or conditions, including all liquids identified, during the scan.

4.5.3 The Host facility is to support the CCP VPM with the construction of NDE capability demonstration drums as required.

4.6 Nondestructive Assay (NDA)

4.6.1 The Host facility will provide support for CCP participation in the PDP. This support includes preparation of the test drums, delivery and pick-up of the drums to/from the CCP NDA equipment, and responsibility for PDP source control.

4.6.2 CCP will perform NDA using a CCP-provided unit or multiple units as required. Containers rejected by NDA will be dispositioned consistent with the requirements of Section 4.3.

4.6.3 CCP will provide validated BDRs to the TWPC for disposal of LLW/MLLW from the certified program.

4.6.4 CCP will provide electronic data to Host site.

4.6.5 CCP will operate Host facility provided NDA equipment when possible in conjunction with CCP provided equipment until all CCP provided NDA units are certified under the CBFO program.

4.7 Radiological Characterization (Dose-to-Curie [DTC])

- 4.7.1 The Host Facility will provide technical support for RC efforts based on the use of AK for stored RH TRU waste or sampling and analysis.
- 4.7.2 CCP will provide qualified personnel, including Host facility personnel, to perform RC activities.
- 4.7.3 The Host facility will provide support to the CCP for performing calibration of RC instrumentation. This support includes delivery of surrogate drums and source control as needed.

4.8 Waste Sampling and Analysis Methods

- 4.8.1 If the Permittees determine that additional characterization is necessary using chemical sampling and analysis, the Permittees shall direct the generator/storage site to provide the Permittees with the following documentation:
- Sampling and analysis plan
 - EPA SW-846 test method(s), or functionally equivalent test method(s) to be used
 - Identification of the laboratory(ies) that will be performing the test(s)
- 4.8.2 Upon the Permittees written approval of the sampling and analysis plan, the generator/storage site shall implement the sampling and analysis plan.

4.9 Flammable Gas Analysis (FGA)

- 4.9.1 FGA is for transportation only and will be performed using approved DOE/WIPP procedures by personnel trained under the CCP Qualification Program.

4.10 Source Control

- 4.10.1 CCP will provide a list of Special Nuclear Materials (SNM) reference sources required for calibration of CCP-furnished systems.

- 4.10.2 The Host facility will be responsible for all non-SNM reference sources. Responsibilities consist of inventory control, storage, shipment, and usage. The Host facility will provide CCP the number of sources, location, isotopic distribution with activity levels, and the names of the custodian and authorized users, as required.
- 4.10.3 The Host facility will be responsible for providing radiological control support associated with the non-SNM reference sources. This support consists of maintaining the radioactive materials area (RMA) postings, periodic surveys and performing a semi-annual leak check on the sources as requested by CCP.
- 4.10.4 The Host facility will be responsible for all SNM reference sources. Responsibilities consist of: inventory control, storage, inspection and handling. The Host facility, as custodian of SNM sources, will provide to CCP the necessary sources. Host facility personnel will load the sources into the matrix drums as requested by CCP. CCP personnel will be trained as users of the sources to the Host facility procedures.
- 4.10.5 The Host facility will provide support for the CCP participation in the PDP. This support includes maintaining trained PDP coordinators, preparation of the test drums, delivery and pick-up of the drums to/from the CCP NDA equipment, and responsibility for PDP source control. Host facility support will be coordinated by the Host facility STR/Designee.

4.11 Acceptable Knowledge (AK)

- 4.11.1 CCP records personnel will maintain the auditable AK record necessary to support the AK Summary Report in accordance with the HWFP, Attachment C, *Waste Analysis Plan* (WAP), WCPIP, and the Quality Assurance Program Description (QAPD).
- 4.11.2 CCP AK personnel will perform and document the AK collection, reporting, and confirmation in accordance with CCP-TP-005, *CCP Acceptable Knowledge Documentation* and/or the RHPIP. CCP shall submit the AK Summary Report for Host facility review and concurrence. As warranted, the Host facility STR/Designee will provide written comments. Upon satisfactory disposition of comments, the Host facility STR/Designee will provide written concurrence of the AK Summary Report.

4.11.3 Host facility personnel will assist CCP AK personnel in support of AK compilation, confirmation, discrepancy resolution, or AK reassessment of source documents.

4.12 Data Validation and Reconciliation

4.12.1 Wherever CCP has obtained the services of another CBFO-certified TRU Waste Program, that program will provide BDRs completed through data generation level (DGL) reviews to CCP in accordance with their own programmatic documents.

4.12.2 CCP will provide project level validated data packages for NDE, NDA, VE, RC, and FGA.

4.12.3 The CCP SPM, and AKE will perform data reconciliation with applicable data quality objectives (DQOs) using CCP-TP-002, *CCP Reconciliation of DQOs and Reporting Characterization Data*, and CCP-TP-506, *CCP Preparation of the Remote-Handled Transuranic Waste Acceptable Knowledge Characterization Reconciliation Report*.

4.13 Measuring and Test Equipment (M&TE)

4.13.1 The Host facility will make available National Institute for Standards and Technology (NIST)-traceable calibration services for M&TE to the CCP. The Host facility will maintain records on M&TE calibration in accordance with the Records Inventory and Disposition Schedule (RIDS). Copies of the Certificates of Calibration will be made available to the CCP VPM and CCP M&TE Custodian prior to issuing M&TE to CCP for use.

4.13.2 For Host site M&TE furnished for use in the CCP program, the Host site STR or Designee will provide notification to the CCP M&TE Custodian when M&TE are added, deleted, found out-of-tolerance/defective, or failed calibration. When notified of an as found, failed calibration by the Host site, CCP will perform an extent of condition review to assess its impact on any of the characterization processes, initiate an NCR (if applicable) and provide this info to the Host site STR/Host site M&TE Custodian.

4.13.3 The Host facility STR/Designee will make calibration documentation and processes accessible as needed for internal and external audits.

4.13.4 The CCP M&TE Custodian will provide a recall notification for CCP M&TE that requires calibration to the STR/Host site M&TE Custodian.

4.14 Work Standards

NOTE

The focus of Section 4.14 is to adequately protect the workers on the equipment at the various facilities.

4.14.1 CCP operations personnel will work under the Host facility Lockout/Tagout procedure.

4.14.2 CCP and Host facility-provided personnel will perform quality-affecting work under CCP procedures for TRU waste characterization and certification activities. Host facility procedures and work packages will be used for non-waste characterization activities (e.g., equipment repairs).

4.14.3 CCP operations personnel will operate in accordance with CCP-PO-005, *CCP Conduct of Operations*.

4.14.4 CCP operations personnel will comply with Host facility procedures as they apply to the retrieval area and other established characterization areas.

4.14.5 CCP personnel will work under the Host facility safety basis and work control standards (e.g., General Employee Radiological Training [GERT]). Maintenance work control activities on Host facility-supplied equipment and CCP/CCP Vendor owned equipment will be controlled using Host facility work authorization procedures.

4.14.6 As outlined in CCP-PO-005, it is the responsibility of the CCP VPM to maintain equipment configuration and authorize equipment changes to ensure that Mobile Characterization Equipment (MCE) systems are operated and maintained in accordance with the Host facility safety basis. The VPM will not authorize a change to any MCE until steps 4.14.6 [A] and [B] have occurred:

- [A] The CCP TWPC Project Manager has approved the change in accordance with CCP-CM-001, *CCP Equipment Change Authorization and Documentation*, Attachment 1, CCP Characterization Equipment Change Authorization, or the evaluation of the screening questions indicate that no further approval is required.
- [B] The Host facility STR/Designee must concur with the proposed change in writing (CCP-CM-001, Attachment 1) and provide a copy of the approved USQ, if required. The Host facility STR/Designee will coordinate the review of the proposed change to ensure AB and Permitting requirements are met.
- [C] Once the existing waste characterization equipment has been turned over to CCP for operation, no change to the configuration will be approved by the Host facility without CCP's concurrence in writing from the CCP VPM. This may be accomplished by e-mail.
- 4.14.7 CCP personnel will participate in the Host facility bioassay program. CCP personnel involved in VE of waste will provide routine samples at a frequency agreed upon between the Host facility and NWP Radiological Safety organization. All other CCP personnel will provide samples as requested under the routine/random program established by the Host facility. All CCP personnel will submit the bioassay samples required to establish a baseline for activities at the Host facility.
- 4.14.8 The CCP TWPC Project Manager or VPM will notify the Host facility STR when new CCP personnel, NWP and subcontractors are assigned to work at the TWPC. The CCP TWPC Project Manager or CCP VPM will notify the Host facility STR when CCP personnel, NWP and subcontractors leave the TWPC as a result of reassignment or resignation. This notification will occur as soon as is practical. The Host facility STR will notify affected organizations to support the arrival or departure of CCP personnel.
- 4.14.9 The CCP TWPC Project Manager or CCP VPM will be notified if any bioassay sample provided by CCP personnel indicates that an uptake of any radioactive isotopes may have occurred as soon as is reasonably possible.

- 4.14.10 Host facility Radiological Controls personnel will perform routine surveys for contamination and radiation as specified in Host facility policies or procedures. The CCP TWPC Project Manager or CCP VPM and appropriate Host facility management personnel will be notified immediately upon the discovery of any loose surface contamination in any CCP-occupied buildings or any of the CCP characterization equipment contained in these buildings. Access to and copies of routine survey results will be made available to CCP upon request.
- 4.14.11 The Host facility will immediately notify the CCP TWPC Project Manager or CCP VPM and appropriate Host facility management personnel of any abnormal continuous or fixed air sample filter analysis results from any area routinely occupied by CCP personnel.
- 4.14.12 CCP will provide historical information on the operation of any CCP equipment deployed at the Host facility for the purpose of lessons learned and the implementation of any mitigating actions from these lessons learned.
- 4.14.13 For Host facility-supplied equipment and facilities, the Host facility is responsible for ensuring the safety basis is adequate to cover the equipment and facilities that are provided. For these instances the Host facility is the Design Authority. It is expected that CCP will participate in review of hazards analysis for this equipment and facilities being provided.
- 4.14.14 For non-Host facility-provided equipment, CCP will provide safety basis input for the Host facility's safety basis. CCP will be the Design Authority for the equipment. In addition, prior to any modification of equipment, these changes will be provided to the Host facility for review and incorporation into their safety basis documents and are subject to the CCP Configuration Management Program. The programmatic limits for the operation of the characterization equipment are the responsibility of CCP as part of their Design Authority responsibilities.
- 4.14.15 CCP will control the procurement, development, maintenance, configuration management and use of software used on all Host facility and non-Host facility-provided equipment used to develop quality-affecting data for waste characterization in accordance with CCP-QP-022, *CCP Software Quality Assurance Plan*.

- 4.14.16 The Host facility and NWP Radiological Safety organizations shall meet on a quarterly basis to discuss the status of radiological conditions and work practices in areas routinely occupied by CCP personnel. This requirement may be met by NWP Radiological Safety personnel visiting the Host facility or by teleconference as agreed to by these organizations. The NWP Radiological Safety organization will provide the CCP Operations Manager and CCP TWPC Project Manager with a summary of the meeting including any issues that require resolution. This summary may be provided by e-mail.
- 4.15 TRU Waste Certification and WIPP Waste Information System/Waste Data System (WWIS/WDS) Data Entry
- 4.15.1 CCP will prepare Waste Stream Profile Forms (WSPFs) for the subject Host facility waste in accordance with CCP-TP-002.
- 4.15.2 CCP will transmit characterization and certification data using the WWIS/WDS and CCP procedures CCP-TP-030, *CCP CH TRU Waste Certification and WWIS/WDS Data Entry* or CCP-TP-530, *CCP RH TRU Waste Certification and WWIS/WDS Data Entry*.
- 4.15.3 CCP shall submit WSPFs to the Host facility for information before submittal to CBFO. The Host facility will provide written concurrence on the basis of continued compliance with procedures and programs, and CBFO-certification of the CCP program.
- 4.15.4 The CCP Waste Certification Officials (WCO) will document and certify that all TRU waste payload containers meet the requirements of the WAC, and submit the data to the WWIS/WDS for approval.
- 4.16 Transportation
- 4.16.1 CCP Transportation is responsible for meeting all requirements for loading and shipping TRU waste certified by the CCP as approved in the WWIS/WDS.
- 4.16.2 CCP transportation will direct TWPC loading of containers into overpacks according to CCP WCO listings and will provide the CCP WCO with the necessary data to complete the process, if required.

4.16.3 The TWPC provides and signs on behalf of DOE the Uniform Hazardous Waste Manifest, bill of lading, make notifications as required, and required markings, labels and placards for each TRU waste shipment.

4.17 Quality Assurance (QA)

4.17.1 All work performed in the completion of this waste characterization and certification scope will be in compliance with applicable DOE/CBFO-certified CCP procedures.

4.17.2 CCP will conduct periodic QA surveillances to assess compliance with applicable WIPP requirements.

4.17.3 The Host facility will conduct surveillances to assess compliance with applicable procedures.

4.18 Project Control

4.18.1 CCP and the Host facility will provide weekly status for their respective scheduled activities.

4.18.2 CCP will provide the Host facility with an up-to-date accrual schedule and estimates of completion at the end of each month, or as requested.

4.18.3 CCP will maintain and provide the Host facility with an up-to-date organization chart listing CCP personnel, along with associated roles and responsibilities.

4.18.4 CCP will provide the Host facility with invoices reflecting labor, material and supplies, subcontractor and travel cost.

4.18.5 CCP will provide timely cost estimates to the Host facility STR/Designee for any new CCP activities planned.

4.18.6 CCP will provide the Host facility STR/Designee actual cost data for each scheduled CCP Level 3 activity on a monthly basis.

4.19 Procedures

4.19.1 As defined in CCP-QP-010, editorial or minor changes may be made to all CCP documents except CCP-PO-001, *CCP Transuranic Waste Characterization Quality Assurance Project Plan*, CCP-PO-002, *CCP Transuranic Waste Certification Plan* and CCP-PO-003, *CCP Transuranic Authorized Methods for Payload Control (CCP CH-TRAMPAC)* and CCP-QP-001, *CCP Graded Approach* without the same level of review and approval as the original document. CCP will process any required changes in accordance with CCP-QP-010.

4.19.2 New technical operating procedures (procedures that operate equipment) developed by the CCP and scheduled to be used at the Host facility, shall be evaluated by the Host facility STR/Designee to determine if the procedure shall be added to the Host facility review list provided in Section 4.19.3.

4.19.3 The following documents, and all revisions to these documents, will be provided to the Host facility STR/Designee for review:

- CCP ORNL AK Summary Reports
- CCP ORNL WSPFs
- CCP-CM-001, *CCP Equipment Change Authorization and Documentation*
- CCP-PO-026, *CCP Configuration Management*
- CCP-TP-047, *CCP Mobile IQ3 Gamma Scanner Operation*
- CCP-TP-053, *CCP Standard Real-Time Radiography (RTR) Inspection Procedure*
- CCP-TP-066, *CCP Radiography Screening Procedure for Prohibited Items*
- CCP-TP-076, *CCP Operating the Mobile ISOCS Large Container Counter Using NDA 2000*
- CCP-TP-113, *CCP Standard Contact-Handled Waste Visual Examination*

- CCP-TP-164, *CCP Real-Time Radiography #7 Operating Procedure*
- CCP-TP-165, *CCP Real-Time Radiography #6 Operating Procedure*
- CCP-TP-500, *CCP Remote-Handled Waste Visual Examination*
- CCP-TP-504, *CCP Dose-to-Curie Survey Procedure for Remote-Handled Transuranic Waste*

4.19.4 The following documents, and all revisions to these documents, will be provided to the Host facility STR/Designee as “Notify Only” during the review process:

- CCP-PO-005, *CCP Conduct of Operations*
- CCP-TP-046, *CCP Mobile IQ3 System Calibration Procedure*
- CCP-TP-048, *CCP Mobile IQ3 System Data Reviewing, Validating, and Reporting Procedure.*
- CCP-TP-068, *CCP Standardized Container Management*
- CCP-TP-509, *CCP Remote-Handled Transuranic Container Tracking*
- CCP-TP-512, *CCP Remote-Handled Waste Sampling*
- DOE/WIPP-02-3183, *CH Packaging Program Guidance*
- DOE/WIPP-02-3283, *RH Packaging Program Guidance*
- DOE/WIPP-06-3345, *Waste Isolation Pilot Plant Flammable Gas Analysis*

4.19.5 Other controlled documents used by CCP are available to the Host facility STR/Designee for information purposes at the secure file transfer protocol [sftp] site.

4.19.6 The Host facility STR/Designee will review or designate the appropriate reviews of the CCP procedures listed in Section 4.19.3, and forward written comments to CCP Document Control in accordance with CCP-QP-010 for resolution.

4.19.7 The CCP SPM will confirm that the Host facility STR/Designee written comments are resolved with the Host facility STR/Designee concurrence prior to proceeding with CCP operations.

4.20 Document Transmittals

4.20.1 Documents listed in this section, which are provided from one organization to the other as information copies, may be transmitted via memo, fax, e-mail, or formal correspondence. Documents identified as QA records will be transmitted in accordance with CCP-QP-008.

4.20.2 Documents to be provided to the Host facility by CCP include but not limited to:

- [A] Copies of NCRs and Corrective Action Requests (CARs), as applicable.
- [B] Copies of ORNL AK Summary Reports.
- [C] Copies of ORNL AK source documents and source document summaries, as requested.
- [D] Copies of semi-annual trending summary reports.
- [E] Copies of QA surveillance reports.
- [F] Copies of ORNL WSPFs.
- [G] Copies of VE, NDE, and NDA data, as requested.
- [H] Copies of CCP Source/Receipt Inspection Verification Sheets and associated objective evidence for each shipment.
- [I] Information on chemical usage and copies of applicable MSDSs as requested for inventory or reporting reasons.
- [J] Copies of training requirements and associated training records for Host facility personnel supporting CCP.

- [K] A copy of the RIDS developed by CCP.
- [L] Results of all DOE/CBFO/New Mexico Environment Department (NMED)/U.S. Environmental Protection Agency (EPA) or other regulatory audit or compliance/enforcement actions that may impact its ability to characterize and transport TRU waste.
- [M] Copy of final data package to WIPP via WWIS/WDS, as requested.
- [N] Documented evidence of participating in and passing the CBFO PDP.
- [O] NMED approval of the CBFO Certification Audit Report.
- [P] EPA Tier 1 approval of CCP processes and activities at ORNL.

4.20.3 Documents to be provided to CCP by Host facility include:

- [A] Documentation of required training.
- [B] Documentation of training completion for CCP and Host facility personnel for training received from the Host facility.
- [C] Copies of AK source documentation requested by CCP.
- [D] Radiological dose rate and surface contamination results on waste drums as needed to support WWIS/WDS data entry.
- [E] Radiological information as described in Section 3.2.2[A].
- [F] Copies of NCRs, deficiency reports, or other nonconformance documentation per Section 4.3.
- [G] Copies of the results of Host facility assessments pertaining to CCP.
- [H] Copies of calibration certifications.
- [I] Copies of QA surveillance reports.

[J] Copies of the Uniform Hazardous Waste Manifest, bill of lading and Shipment Notifications.

[K] Any documentation required by CCP to perform its scope of work, including correspondence pertaining to characterization activities.

4.21 Authorization Basis (AB) and Configuration Management

4.21.1 The Host facility has primary responsibility to ensure that CCP equipment and processes have been appropriately considered within the DOE-approved, Host facility DSA.

4.21.2 The Host facility shall provide to CCP Host facility generated AB documentation concerning CCP related activities and equipment, including USQ's, for CCP's review.

4.21.3 CCP has primary responsibility to control operations and equipment configurations to ensure compliance with Host facility procedures that protect the personnel, public, and environment.

4.21.4 For CCP provided equipment, CCP will provide the documentation necessary for Host facility to perform the evaluation against its safety analysis. This documentation may include health and safety plans, hazard assessments, system descriptions, equipment drawings, or other information deemed necessary through mutual agreement between CCP and the Host facility.

4.21.5 For Host facility provided equipment, CCP will review operational and AB documentation, including USQs, to ensure the safety of CCP personnel while operating the equipment.

4.21.6 All changes to Host facility equipment operated by CCP and CCP/CCP Vendor owned equipment will be controlled by the Host facility Configuration Management and Work Control Program to ensure appropriate AB evaluations are conducted and associated controls are established.

4.21.7 The Host facility will submit all changes to AB requirements that affect CCP operations for review and concurrence by CCP prior to implementation.

4.22 Notification

4.22.1 The Host facility has primary responsibility to notify CCP when there are changes in the Host facilities used by CCP for characterization activities or changes that may impact operations.

4.22.2 The Host facility has primary responsibility to notify CCP when there are changes to the policies, processes, or procedures that may affect CCP characterization activities or operations.

4.22.3 CCP has primary responsibility to ensure changes to equipment are in accordance with CCP-CM-001, *CCP Equipment Change Authorization and Documentation*.

4.22.4 CCP has primary responsibility to notify the Host facility when there are configuration changes to CCP or CCP vendor-owned equipment.

4.22.5 The Host site has primary responsibility to notify CCP when repairs or modifications are needed on the CH or RH transportation trailers, packaging equipment, or casks.

4.22.6 CCP is responsible for performing or coordinating repairs and modifications to the CH or RH transportation trailers, packaging equipment, or casks.

4.23 Procurement

4.23.1 TWPC is shown as a supplier of procurement services on the NWP QSL. TWPC may procure, inspect, and perform receipt inspection of whatever items are listed in the most current NWP QSL for the CCP scope of work. TWPC will perform these activities in accordance with its QSL-accepted program.

4.23.2 TWPC shall use the specifications found on the CCP sftp site when ordering gas standards used for FGA or SUMMA[®] sampling operations.

4.24 Occurrence Reporting and Processing System (ORPS) and Price-Anderson Amendments Act (PAAA)

4.24.1 The host site will report all Price-Anderson Amendments Act (PAAA) and Occurrence Reporting and Processing System (ORPS).

4.24.2 CCP shall provide Host site with all information and notifications required.

4.24.3 If CCP is responsible for the deficient condition, CCP will revise/report independently.

5.0 RECORDS

- 5.1 Records generated during the performance of the waste characterization and certification scope are controlled by CCP.
- 5.2 QA records generated by CCP documents referenced in this interface document are maintained in accordance with CCP-QP-008.
- 5.3 All electronic and/or hard copy QA records generated by CCP documents referenced in this interface document shall be maintained by CCP at a TWPC location provided by the Host facility.
- 5.4 All QA records generated by CCP will be maintained and dispositioned in accordance with CCP-QP-008 and CCP-QP-028, *CCP Records Filing, Inventorying, Scheduling, and Dispositioning*.
- 5.5 The Host facility will maintain the following records in accordance with Host facility requirements. The list includes, but is not limited to, the following:
 - 5.5.1 MSDS
 - 5.5.2 Calibration Certifications

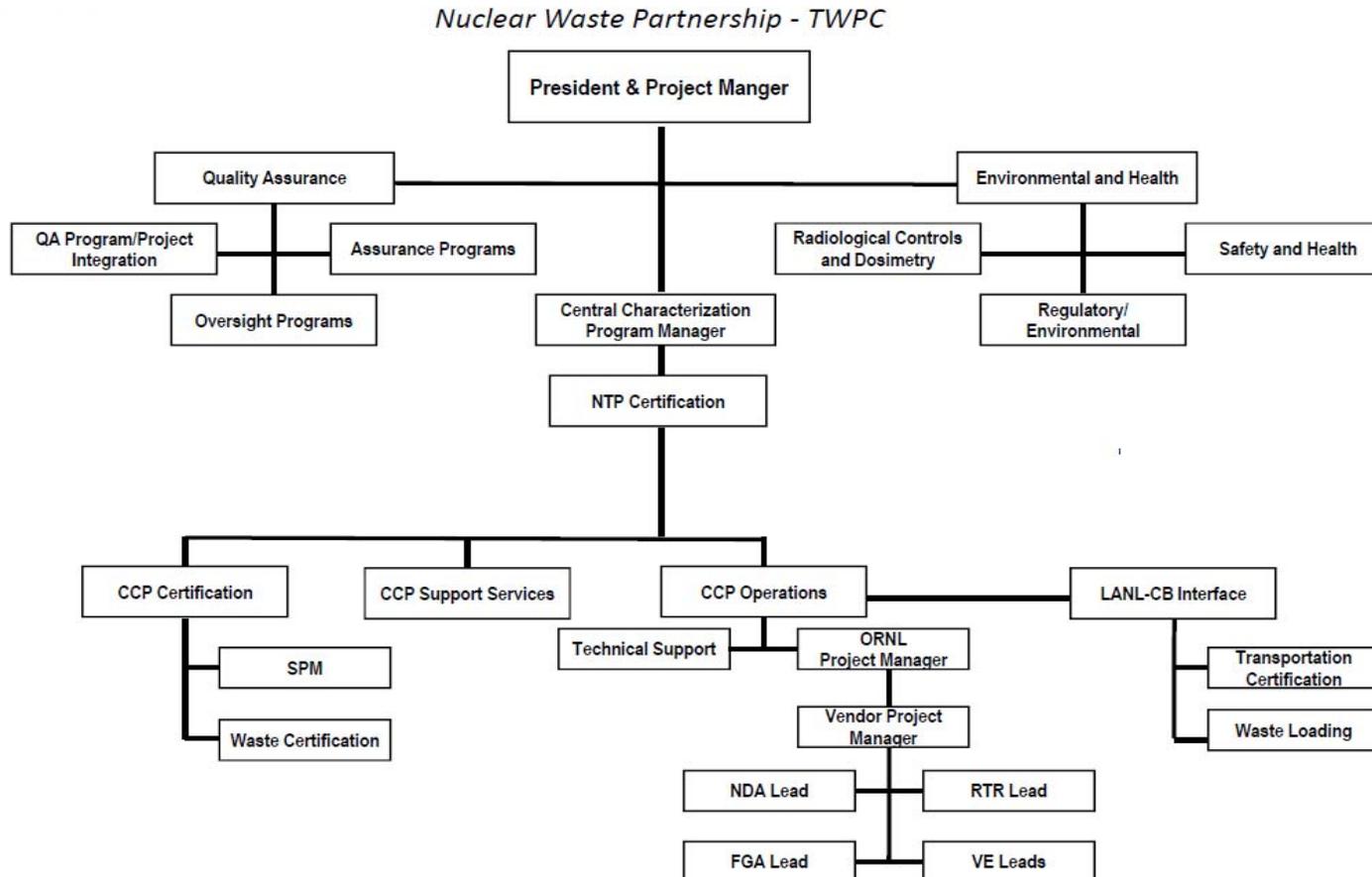
6.0 OVERSIGHT

NOTE

Through the IEWO contract between ORO and NWP, and the associated SOW, the ORO has delegated the authority to characterize and certify TRU waste to be shipped to the WIPP. Nonetheless, the Host facility retains the responsibility for proper disposal as the waste generator on behalf of DOE. Accordingly, the following actions will define the level of oversight of the CCP by Host facility personnel.

- 6.1 The Host facility will accept successful completion of the CBFO certification audit as adequate evidence that the CCP implementation at the Host facility is fully compliant with waste disposal requirements as set forth in the CH and RH WAC and WAP. However, the Host facility may conduct, at their discretion, periodic surveillances of CCP operations.
- 6.2 Following successful completion of the CBFO certification audit, the Host facility QA will conduct periodic surveillances to ensure CCP work is conducted in accordance with CCP procedures. These surveillances will be conducted in accordance with Host facility QA procedures.
- 6.3 The Host facility QA will provide copies of its surveillance reports to the CCP SPM. The CCP SPM and NWP QA will take the following actions:
 - 6.3.1 Review the Host facility surveillance reports for any finding or other deficiencies against the CCP scope of work.
 - 6.3.2 Document and perform corrective actions in accordance with applicable NWP issues management procedures.
 - 6.3.3 Provide Host facility QA with CCP actions to correct the identified deficiencies.
 - 6.3.4 NWP QA will maintain an information file of the Host facility surveillance reports conducted on the CCP scope of work.

Figure 1 – Nuclear Waste Partnership – TWPC



CCP-QP-002

Revision 37

CCP Training and Qualification Plan

EFFECTIVE DATE: 05/12/2014

Mike Ramirez

PRINTED NAME

APPROVED FOR USE

RECORD OF REVISION

Revision Number	Date Approved	Description of Revision
9	02/20/2002	Major rewrite to streamline and create a more concise procedure. Document reduced from 57 pages to 16 pages.
10	06/05/2002	Added References. Changes to CCP Technical Supervisor responsibilities. Added Training Evaluations to Records section. Deleted 4.2.5 Audit Personnel Qualifications. Other changes for clarification and consistency.
11	09/12/2002	Deleted Sections 3.3.2 and 3.3.3.
12	10/24/2002	Added Steps 3.8.2 and 3.8.3 in response to SRS Recertification Audit.
13	06/30/2003	Added NDE RTR Section, revised qualification letter and other minor editorial changes. Separated electronically fillable forms and updated references in procedure.
14	12/02/2003	Revision initiated to address CAR# 04-002 identified during CBFO audit A-04-03 and CAR# CCP-0009-03. Added information about RTR audio/videotapes and Capability Demonstrations. Added paragraph 4.2.3[A.5] discussing qualification card addenda. Added section 4.2.4[C] discussing FQAO appointment requirements.
15	03/10/2004	Added Capability Demonstration Instructions (Attachment 2) and CCP Capability Demonstration Data Sheet (Attachment 3 or CCP-QP-002-A1).
16	12/07/2004	Deleted the Technical Supervisor responsibilities section and incorporated them into the Vendor Project Manager responsibilities. Added partial qualification section. Removed requirement for the Site Project Manager to appoint the Facility Quality Assurance Officer by letter.
17	06/06/2005	Addressed CAR 05-029 and CAR 05-033 identified during Carlsbad Field Office (CBFO) Audits A-05-09 and A-05-12. Areas modified were qualification requirements for Nondestructive Assay (NDA) Expert Analyst and examination requirements for Central Characterization Project (CCP) Helium Leak Detection (HLD) Level III.
18	12/13/2005	Clarified roles and responsibilities in reviewing Capability Demonstration training audio/video media and modified Attachment 3 – CCP Capability Demonstration Data Sheet.
19	12/15/2005	Clarification for Level of Qualification in step 4.2.2[B.1].

RECORD OF REVISION (Continued)

Revision Number	Date Approved	Description of Revision
20	05/03/2006	Addressed CAR-RHINL-0001-06. Incorporated Remote-Handled waste training and position requirements. Restructured for improved flow.
21	06/13/2006	Updated step 4.2.5 to delete the word "training" from the requirements for VE Operator/ITR/TS/FQAO.
22	11/16/2006	Revised to implement the Waste Isolation Pilot Plant Hazardous Waste Facility Permit requirements resulting from the Section 311/Remote-Handled (RH) Permit Modification Request (PMR). Addressed Carlsbad Field Office (CBFO) Document Review Record (DRR) comments.
23	02/01/2007	Revised to address CCP Quality Assurance Surveillance Number SUR-CCP-0005-06.
24	02/27/2007	Revised to address concern raised during Surveillance #S-07-18.
25	05/08/2007	Revised to address Corrective Action Report (CAR) SRS-0002-07.
26	02/07/2008	Revised to address U.S. Department of Energy (DOE) Carlsbad Field Office (CBFO) Corrective Action Report (CAR) 08-004.
27	09/30/2008	Revised to change nondestructive examination (NDE) to comply with Management Assessment MA-CCP-0023-08. Also revised Section 5.1.1[J] in response to Carlsbad Field Office (CBFO) Corrective Action Report (CAR) 08-036.
28	05/26/2010	Revised to address Corrective Action Report (CAR)-CCP-0012-09, to clarify Acceptable Knowledge (AK) briefings, training for solids lab, and approval process for training material. References to Central Characterization Project (CCP) Program Manager/Project Manager were removed and the responsibilities assigned to the Lead Site Project Manager and CCP Manager responsible for Training.
29	07/08/2010	Revised to incorporate changes into Attachment 4, CCP Test Drum Data Sheet for Contact-Handled Waste, and other minor editorial changes.
30	12/29/2010	Revised to bring into compliance with the revision of the Waste Isolation Pilot Plant Hazardous Waste Facility Permit.

RECORD OF REVISION (Continued)

Revision Number	Date Approved	Description of Revision
31	04/21/2011	Revised based on Revision 2 of the DOE/WIPP 02-3214, <i>Remote-Handled TRU Waste Characterization Program Implementation Plan</i> .
32	04/03/2012	Revised to simplify the process for tracking waste stream Summary Training in Section 4.2. Added full requalification as an option in Section 4.1.2 [I]. Added the Training Module in Integrated Data Center (IDC) as a source of Training information to the note in Section 4.1. Incorporated Standing Orders CCP-SO-051 in Section 4.4.1[C], CCP-SO-069 in Section 4.2, and CCP-SO-078 in Section 4.1.2[F]. Expanded Section 4.1.1 to add a documented analysis of positions requiring qualification, in response to Carlsbad Field Office (CBFO) Corrective Action Report (CAR) 12-010.
33	08/30/2012	As a corrective action in response to CBFO CAR 12-033, revised the document to remove references to Lead SPMs and Alternate SPMs, so that any qualified SPM may perform the actions in Section 3.1.
34	01/30/2013	Revised to incorporate Standing Order CCP-SO-086, <i>Clarification of the Time Period for Performance of the RTR Semiannual Training Container Required by CCP-QP-002</i> ; incorporate changes to DOE/WIPP-02-3214, <i>Remote-Handled TRU Waste Characterization Program Implementation Plan</i> ; update the title of the organization, as appropriate; and minor editorial changes.
35	06/06/2013	Revised to implement the Permit Modification Request Class 2 approved by New Mexico Environment Department (NMED) dated March 13, 2013 and CAR-CCP-0003-13.
36	03/31/2014	Revised to incorporate changes in response to U.S. Environmental Protection Agency (EPA) Issue Tracking Form ORNL-CCP-CC-RTR-2014-02CR: adding a requirement for a written record for the Training Container, to be filled out by the operator for the review by the Cognizant Engineer (CE), and adding a place on the Training Container evaluation sheet for operator acknowledgement of counseling for any missed items. Also incorporated Standing Order CCP-SO-110.

RECORD OF REVISION (Continued)

Revision Number	Date Approved	Description of Revision
37	05/12/2014	In response to Carlsbad Field Office of the Department of Energy (CBFO) corrective active report (CAR) 14-030, revised the NOTE in Section 3.4 to clarify that the preferred method for determining an Subject Matter Expert (SME)/On-the-Job Training (OJT) candidate's education and experience is by reviewing the individual's resume, but whatever method is used must be explicitly stated in the documentation provided to Training by the site project manager (SPM). Also added a new Attachment 7 as a template for appointment letters to be issued by the SPM, which may be customized as necessary.

TABLE OF CONTENTS

1.0 PURPOSE..... 7
1.1 Scope..... 7

2.0 REQUIREMENTS..... 8
2.1 References 8

3.0 RESPONSIBILITIES..... 10
3.1 Site Project Manager (SPM) 10
3.2 Vendor Project Manager (VPM)..... 11
3.3 Training..... 11
3.4 SME/OJT Instructor 13
3.5 Personnel..... 14
3.6 Trainee..... 14
3.7 Manager Responsible for Training 14
3.8 Cognizant Engineer (CE) 15

4.0 PROCEDURE..... 16
4.1 General Training Requirements..... 16
4.2 Waste Stream Summary Training 19
4.3 Specific Qualification and Training Requirements 20
4.4 Appointments..... 26

5.0 RECORDS..... 28

LIST OF ATTACHMENTS

Attachment 1 – Minimum Training, Education, and/or Experience 30
Attachment 2 – Test Drum Instructions for Contact-Handled Waste Drums..... 31
Attachment 3 – Test Drum Data Sheet for Contact-Handled Waste 34
Attachment 4 – Training Container Instructions 36
Attachment 5 – Training Container Data & Evaluation Sheet..... 38
Attachment 6 – Annual Record of Eye Examination..... 39
Attachment 7 – SPM Appointment Letter 40

1.0 PURPOSE

NOTE

CCP-QP-040, *Support Training*, applies to those activities that do not fall under the scope of CCP-QP-002, *CCP Training and Qualification Plan* as defined herein. CCP-QP-040 applies to those positions which are not covered by the baseline documents listed in Section 2.1 of this document.

This plan describes the responsibilities of personnel involved in the Central Characterization Program (CCP) Qualification and Training Program. This plan also describes the process for identifying qualification and training requirements for all personnel and technical support personnel, who perform characterization, packaging, certification, and activities.

1.1 Scope

This plan applies to all personnel who conduct quality-affecting activities associated with transuranic (TRU) waste under the CCP, including characterization, packaging, certification, and transportation.

Personnel under this plan are qualified and trained to ensure suitable proficiency is achieved and maintained for assigned tasks. Training and qualification requirements are commensurate with the nature of the activities and level of responsibility.

Training will emphasize the correct performance of work, provide a description of why quality, safety, and TRU waste characterization and certification requirements exist, and describe the fundamentals of the work and its context.

Training will be subject to an on-going evaluation to determine instruction and training program effectiveness and will be upgraded whenever needed improvements or enhancements are identified.

2.0 REQUIREMENTS

2.1 References

Baseline Documents

- DOE/WIPP 02-3183, *CH Packaging Program Guidance*
- DOE/WIPP 02-3184, *CH Packaging Operations Manual*
- DOE/WIPP 02-3185, *CH Packaging Maintenance Manual*
- NRC Docket 71-9212, *RH-TRU 72-B Safety Analysis Report*, Rev. 3, November 2002
- CCP-PO-001, *CCP Transuranic Waste Characterization Quality Assurance Project Plan*
- CCP-PO-002, *CCP Transuranic Waste Certification Plan*
- CCP-PO-003, *CCP Transuranic Authorized Methods For Payload Control (CCP CH-TRAMPAC)*

Referenced Documents

- DOE/WIPP 02-3214, *Remote-Handled TRU Waste Characterization Program Implementation Plan*
- ASNT SNT-TC-1A, *Recommended Practice for Personnel Qualification and Certification in Nondestructive Testing*, American Society for Nondestructive Testing (1980 Edition)
- ASTM C1490, *Standard Guide for the Selection, Training, and Qualification of Nondestructive Assay (NDA) Personnel*
- CCP-QP-005, *CCP TRU Nonconforming Item Reporting and Control*
- CCP-QP-008, *CCP Records Management*
- CCP-QP-030, *CCP Written Practice for the Qualification of CCP Helium Leak Detection Personnel*
- CCP-QP-032, *CCP Written Practice for the Qualification of CCP Pressure Change Leak Testing Personnel*
- CCP-QP-040, *Support Training*

- CCP-TP-028, *CCP Radiographic Test Drum and Training Container Construction*
- WP 15-GM1002, *Issues Management Processing of WIPP Forms, Management Control Procedure*

3.0 RESPONSIBILITIES

3.1 Site Project Manager (SPM)

- 3.1.1 Oversees planning, characterization, and certification activities.
- 3.1.2 Ensures personnel are qualified and trained to perform their assigned job functions.
- 3.1.3 Determines initial and continuing qualification and training requirements in cooperation with appropriate Cognizant Engineer (CE), Manager Responsible for Training, and Training to ensure job proficiency is maintained.

NOTE

Staffing changes includes situations where individuals are brought into or re-assigned in the program (these qualified positions can be either project level or operational level).

- 3.1.4 Notifies Training of staffing changes and candidates for job positions and provides supporting documentation (e.g., resumes, certificates, diplomas, training records).
- 3.1.5 Verifies education/experience requirements for Nondestructive Assay (NDA) Expert Analysts (EA).

NOTE

Attachment 7, SPM Appointment Letter, is a template to be used by the Site Project Manager (SPM) when appointing new personnel, NDA EA, Remote-Handled (RH) Technical Staff, Subject Matter Experts (SME), or Visual Examination Experts (VEE). As a template/outline, it may be customized by the SPM, as necessary.

- 3.1.6 Appoints VEE, NDA EA, and RH Technical Staff, using Attachment 7. The appointment will be based on education and experience, if applicable.

- 3.1.7 Reviews and approves Qualification Cards.

- 3.1.8 Ensures project personnel who are assigned to perform project activities that affect quality:

- [A] Are cognizant of the qualification and training requirements of this plan.

[B] Satisfy qualification and training requirements for the tasks associated with their assigned job classification(s).

3.1.9 Ensures the requirements of this plan are implemented, as follows:

[A] Personnel receive training and qualification, as necessary, to achieve initial proficiency, maintain proficiency, and adapt to changes in technology, methods, job responsibilities, and quality implementing procedures, prior to performing or verifying any waste characterization, certification, or transportation activities.

3.1.10 Appoints qualified personnel as using Attachment 7.

3.1.11 Ensures qualification and training documentation is complete and is submitted to Training.

3.1.12 Evaluates and documents personnel job performance at periodic intervals (as a minimum, during requalification).

3.1.13 Notifies the Manager Responsible for Training when full requalification is required (e.g., when an individual has been disqualified for unsatisfactory performance).

3.1.14 Analyzes positions to determine major job/task responsibilities as a basis for preparation of qualifications cards (shared responsibility).

3.2 Vendor Project Manager (VPM)

3.2.1 May administer the annual eye examination.

3.2.2 Notifies Training when qualified operations personnel leave the program (e.g., a subcontractor's employment has been terminated).

3.3 Training

3.3.1 Determines initial and continuing qualification and training requirements for positions in cooperation with an appropriate SME/OJT Instructor, the CE, a SPM, and the Manager Responsible for Training using a graded approach that is commensurate with scope, complexity, and nature of the work to include:

[A] Descriptions of the fundamentals of the work and the context in which the work is performed.

[B] Identification of the applicable quality and safety requirements related to job performance.

- [C] Emphasis on the correct performance of work in accordance with established procedures and/or other relevant technical documents.
- [D] Inclusion of education in both principles and enhancement of skills.

- 3.3.2 Supports an SPM in evaluating training and qualification requirements of each position. This may be done by, but is not limited to, evaluating training requirements using a training analysis. The analysis will result in an approved task list from which tasks may or may not be selected for training. When completed, the analysis will be signed by participants, and the task list reviewed and approved by the designated SME/OJT, the CE (if applicable), an SPM, and the Manager Responsible for Training for completeness of training requirements.
- 3.3.3 Develops, implements, and monitors training required to maintain qualification of personnel.
- 3.3.4 Ensures project-required training effectiveness is reviewed when the need for improvements or enhancements is identified, and ensures the training program is updated.
- 3.3.5 Maintains documentation of current personnel training status.
- 3.3.6 Issues approved training materials and assists in the completion of qualifications and training activities.
- 3.3.7 Prepares Qualification Cards.
- 3.3.8 Returns incomplete/incorrect training materials to candidate's manager, as applicable.
- 3.3.9 Provides qualification cards to an SPM for review and approval.
- 3.3.10 Ensures qualification/training records and supporting documentation (including audio/video recorded media for test drums and training containers) are maintained, secured, and controlled in accordance with CCP-QP-008, *CCP Records Management*.
- 3.3.11 Prepares list of qualified individuals (LOQIs) delineating those individuals who have completed Qualification Cards, and distributes to the applicable site.

3.3.12 Reviews, develops, and approves Comprehensive Examinations for thoroughness and adequacy.

3.3.13 Reviews real-time radiography (RTR) completed Attachment 3, Test Drum Data Sheet for Contact-Handled Waste, audio/video recorded media, in accordance with CCP-QP-008.

3.3.14 Reviews (RTR) completed Attachment 5, Training Container Data & Evaluation Sheet, audio/video recorded media, in accordance with CCP-QP-008.

3.4 SME/OJT Instructor

NOTE

Before any OJT can be performed, it is necessary to initially qualify one SME/OJT Instructor for each discipline based on education and experience. The basis for SME/OJT Instructor qualification will be provided by an SPM and documented in the applicable Training files. The normal and preferred method for determining an SME/OJT candidate's education and experience is by reviewing the individual's resume, but whatever the method, it must be explicitly stated on Attachment 7, which is provided to Training by the SPM. The qualification is by discipline and is non-site specific. The basis for qualification will be used to complete a qualification card for the candidate as an SME/OJT Instructor. The successful candidate will be added to the appropriate LOQI(s) once the qualification card is complete.

The SME/OJT Instructor will have adequate education and/or technical knowledge in the applicable discipline, communication skills, and ability to provide trainees with hands-on experience, as determined by an SPM. Technical knowledge may be based on experience with the applicable process or involvement in development of operational procedures or qualification requirements for the applicable process.

The Mobile Loading Unit (MLU) Field Operations Manager (or designee) will appoint SME/OJTs for Transportation activities.

All SME/OJT candidates must complete the SME/OJT briefing and pass the SME/OJT exam.

3.4.1 Provides supervised hands-on training in the work environment to accomplish performance objectives of the training tasks.

3.4.2 Determines initial and continuing qualification and training requirements for National TRU Program Certification (NTPC) positions in cooperation with an SPM, the CE, the Manager Responsible for Training, and Training.

- 3.4.3 Ensures trainee(s) have satisfactory knowledge of and competence in skills requirements, as defined on the Qualification Card.
- 3.4.4 Verifies the correct revision of the qualification card is being used.
- 3.4.5 Signs and dates Qualification Card, indicating acceptable performance levels are met.
- 3.4.6 Provides all training documentation generated to Training in accordance with CCP-QP-008.
- 3.4.7 Analyzes positions to determine major job/task responsibilities as a basis for preparation of qualifications cards (shared responsibility).
- 3.5 Personnel
 - 3.5.1 Provides copies of their qualification documents (e.g., resumes, education, and experience) to an SPM or Training, as applicable.
 - 3.5.2 Completes initial training in accordance with this procedure, as stated on each individual's Qualification Card.
 - 3.5.3 Ensures qualification requirements are completed and signed off before performing assigned tasks without supervision.
 - 3.5.4 Maintains requisite qualifications throughout the duration of work.
 - 3.5.5 Attends NTPC and site-specific training, as necessary.
- 3.6 Trainee
 - 3.6.1 Completes Qualification Card(s) in a timely manner.
 - 3.6.2 Works only under the supervision of a qualified operator or a SME/OJT Instructor.
- 3.7 Manager Responsible for Training
 - 3.7.1 Reviews and approves all training material for applicability and technical content.
 - 3.7.2 Determines when full requalification is required.
 - 3.7.3 Analyzes positions to determine major job/task responsibilities as a basis for preparation of qualifications cards (shared responsibility).

3.8 Cognizant Engineer (CE)

NOTE

A CE is not required for Transportation or Acceptable Knowledge (AK).

- 3.8.1 The CE is designated for each specific process by the NTPC Manager based on their education, knowledge, and experience for the characterization process.
- 3.8.2 The CE has overall responsibility for the implementation and quality of the characterization activity.
- 3.8.3 The CE reviews material developed by Training for applicability and technical content.
- 3.8.4 Analyzes positions to determine major job/task responsibilities as a basis for preparation of qualifications cards (shared responsibility).
- 3.8.5 Reviews and evaluates training containers for RTR personnel.
- 3.8.6 Evaluates the training documentation for RTR personnel and determines if they meet the requirements for certification.

4.0 PROCEDURE

4.1 General Training Requirements

NOTE

The Training Module in the Integrated Data Center (IDC) provides information that may be used to update and maintain the information in documents provided by training, such as the LOQI. Such usage will be described in the applicable sections of this procedure.

4.1.1 Personnel selected to perform or verify NTPC activities will have the education, experience, and training commensurate with job position requirements. The need for job position Qualification Cards will be determined by an SPM, the CE, and the Manager Responsible for Training.

[A] Job position requirements will be analyzed and documented to determine the major duties and tasks associated with the position, as a basis for developing the Qualification Card for each activity requiring qualification. The analyses will be performed by an SPM, a SME/OJT Instructor, the CE (if applicable), and the Manager Responsible for Training.

[B] A separate analysis may not be required for new positions where the major duties and tasks are closely-related to those for an existing, already-analyzed position. This determination will be made and documented by the performers identified in [A], above.

4.1.2 All training candidates are required to complete a Qualification Card to verify that they possess the knowledge and skills necessary to competently perform specified tasks.

[A] Qualification Cards technical content will be determined by a SME/OJT Instructor, the CE, the Manager Responsible for Training, and an SPM based on project requirements and federal and state regulations.

NOTE

The qualification cards for Helium Leak Detection Personnel are issued in accordance with CCP-QP-030, *CCP Written Practice for the Qualification of CCP Helium Leak Detection Personnel*. The qualification cards for Pressure Change Leak Testing (PCLT) personnel are issued in accordance with CCP-QP-032, *CCP Written Practice for the Qualification of CCP Pressure Change Leak Testing Personnel*.

- [B] All Qualification Cards shall be issued by Training.
- [C] The SME will verify current revision.
- [D] Training will verify that prerequisites are met.
- [E] Upon completion of the Qualification Card, candidates are considered qualified to perform their respective duties.
- [F] The Qualification Cards will contain the following information:
 - [F.1] Name of job position.
 - [F.2] Revision number and effective date.
 - [F.3] Trainee's name.
 - [F.4] Signature spaces for approvals of format, technical content, and use by a SME/OJT, the CE, an SPM, and the Manager Responsible for Training, as applicable.
- [G] The Qualification Card will be divided into the following parts, as applicable:
 - [G.1] Education/Experience.
 - [G.2] Job Specific Training (which may include):
 - Indoctrination/Orientation
 - Initial Reading
 - Formal Training
 - National Standards Certifications
 - OJT
 - Signature line and date for trainee
 - Approval section for a SME/OJT
 - Approval section for an SPM

- [G.3] If a Qualification Card requires changes, the following is performed:
- (a) Training, prepare the revised Qualification Card, using the next sequential revision number.
 - (b) Training, route the revised Qualification Card to the following for review and approval: a SME/OJT, the CE (if applicable), an SPM, and the Manager Responsible for Training.
 - (c) Training, upon approval, place a new effective date on the Qualification Card and issue the Qualification Card.
- [G.4] Other required formal training materials, such as the Waste Analysis Plan (WAP)/Quality Assurance Project Plan (QAPjP) Briefing or training determined by a training evaluation (i.e., classroom, OJT, or self-paced instruction) shall be approved for format, technical content, and use by an SPM and the Manager Responsible for Training.
- (a) As initial and continuing qualification and training requirements change, these approved training materials shall be revised by Training.
 - (b) All approved training materials shall be maintained, secured, and controlled by Training.
- [H] Operational Positions (e.g., RTR, NDA, etc.) require requalification every two (2) years. Exceptions are: Helium Leak Detection (HLD) Level III (Limited) has a three year requalification requirement. If necessary, additional training may be required by an SPM, or the Manager Responsible for Training. The sections of the qualification card that must be re-performed during each requalification are identified on the Qualification Cards.

NOTE

Requalifications are due by the end of the month in which the qualification period falls, unless a specific date is listed on the qualification card.

- [I] Requalification of Project Office positions is not required.

- [J] Unsatisfactory performance will result in disqualification by the Manager Responsible for Training. The candidate must successfully complete a full requalification (i.e., repeat the entire Qualification Card) to re-establish qualification.
- [K] Full requalification is also required when an SPM and the Manager Responsible for Training jointly determine that an individual has not been performing in the qualified function for a significant period of time, due to re-assignment and return, or extended absence from the position for other reasons. Typically, full requalification would apply after an absence from the position of more than one year; however, there may be extenuating circumstances and each occurrence is reviewed and documented on a case-by-case basis.

- 4.1.3 Completion of the Waste Isolation Pilot Plant (WIPP) WAP/QAPJP Briefing is a pre-requisite for all personnel before they perform *Waste Isolation Pilot Plan-Waste Analysis Plan (WIPP-WAP)* specific tasks.

NOTE

RTR and visual examination (VE) personnel shall be trained on newly developed and revised waste stream reports which change the waste generating processes, packaging, and expected waste material parameters (WMP) expected to be found in each Waste Matrix.

4.2 Waste Stream Summary Training

- 4.2.1 SPM forward the newly issued or revised AK to the Vender Project Manager (VPM) at the Host location where the AK applies.
- 4.2.2 An SPM, in conjunction with Acceptable Knowledge Expert (AKE), develop the AK training in the form of a briefing which identifies as a minimum the following:
- Specific waste generating processes
 - Packaging
 - WMP for the waste matrix code
- 4.2.3 SPM, provide the briefing to the required RTR and VE personnel.
- 4.2.4 SPM, submit the briefing materials and the completed briefing sheet(s) (or personnel can send individual e-mail acknowledgements) to Training.

4.2.5 Training, update the LOQI for all personnel who received the briefing, showing that they are qualified to perform work on the identified waste stream.

[A] Remove the qualified status for the identified waste stream from the LOQI when either:

[A.1] The SPM so directs, because the waste stream is no longer active, or

[A.2] The Training Module in the IDC shows that the waste stream is no longer active.

4.3 Specific Qualification and Training Requirements

4.3.1 Acceptable Knowledge (AK) Personnel

[A] Personnel assigned to compile, evaluate, and resolve discrepancies associated with AK information, require the following:

[A.1] WIPP-WAP Briefing.

[A.2] Waste Acceptance Criteria (WAC) knowledge.

[A.3] DOE/WIPP 02-3214, *Remote-Handled TRU Waste Characterization Program Implementation Plan* knowledge.

[A.4] Training on Federal and State Resource Conservation and Recovery Act (RCRA) regulations associated with solid and hazardous waste determinations. Training requirement will be satisfied by documented completion of a formal RCRA training program, (e.g., a commercially available RCRA Seminar, or an SPM's documented evaluation of adequate training and/or experience).

[A.5] Knowledge of procedures associated with:

(a) Waste characterization using AK.

(b) AK records development including AK discrepancy resolution.

(c) Nonconformance Report (NCR) process in accordance with CCP-QP-005, *CCP TRU Nonconforming Item Reporting and Control*.

- (d) WIPP Form process, in accordance with WP 15-GM1002, *Issues Management Processing of WIPP Forms, Management Control Procedure*.

[A.6] Knowledge of resolving and managing prohibited items as noted in nonconformance reporting.

4.3.2 RTR Operator/Independent Technical Reviewer (ITR)

[A] Qualification Process

[A.1] An individual qualifying as an RTR Operator/Independent Technical Reviewer (ITR) is considered a trainee. A trainee will work only under the supervision of a qualified operator or SME/OJT Instructor.

[A.2] All RTR personnel will be trained to the guidance of American Society for Nondestructive Testing (ASNT) Recommended Practice Number SNT-TC-1A, *Recommended Practice for Personnel Qualification and Certification in Nondestructive Testing*, modified to suit the RTR application/method.

[A.3] An RTR Operator/ITR will:

- (a) Be able to set up and operate equipment, and be qualified to interpret and evaluate results with respect to applicable codes, standards, and specifications.
- (b) Be thoroughly familiar with the scope and limitations of RTR.
- (c) Exercise the responsibility for OJT and apprenticeship of trainees.
- (d) Be able to prepare written instructions.
- (e) Be able to organize Batch Data Reports (BDRs) with the results of RTR.

[B] Education, Training, and Experience Requirements for Initial Qualification

- [B.1] Personnel considered for qualification in RTR must have sufficient education, training, and experience to ensure understanding of the principles and procedures.
 - [B.2] Education requirements are listed in Attachment 1, Minimum Training, Education, and/or Experience. Personnel being considered for qualification as an RTR Operator/ITR will complete organized training to become familiar with the principles and practices of the applicable RTR method.
 - [B.3] A certificate from an approved vendor stating that the individual operator is a qualified RTR operator Level II (L) SNT-TC-1A.
 - [B.4] To be considered for qualification as an RTR Operator/ITR, the trainee must:
 - (a) Pass the required examinations in step 4.3.2[C].
 - (b) Complete the Qualification Card.
 - [B.5] Any previous training and experience gained in a position similar to the RTR Operator/ITR position may be considered in satisfying the qualification criteria of this procedure and shall be documented in the Training file (i.e., resume).
- [C] Examinations
- [C.1] Physical
 - (a) All trainees will pass an initial eye examination to ensure natural or corrected near-distance acuity in at least one eye. The trainee must be capable of reading Jaeger Number 2 at a distance of not less than twelve (12) inches on a standard Jaeger test chart.
 - (b) The eye examination will demonstrate the capability of distinguishing and differentiating contrast used in RTR.

- (c) The eye examination will be administered on an annual basis and the results maintained in the Training files. VPMs at each site may administer the eye examination.

[C.2] Comprehensive

- (a) Pass a program-specific comprehensive exam with an 80 percent or better grade that addresses radiography operations, documentation, characterization, and procedural elements.

[C.3] Test Drum

NOTE

The requirement for completing the test drum defined in the Waste Characterization Program Implementation Plan (WCPIP) is met by successfully completing the Training Container.

Test Drums are due by the end of the month in which the qualification period falls.

- (a) At initial qualification and subsequent requalification, successfully examine a test drum that includes items common to the waste streams and is representative of the waste matrix codes and WAC required items.
- (b) Use Attachment 2, Test Drum Instructions for Contact-Handled Waste Drums.
- (c) Documentation required for test drums is as follows:
 - (c.1) Attachment 1, CCP NDE Test Drum Inventory Sheet (from CCP-TP-028, *CCP Radiographic Test Drum and Training Container Construction*).
 - (c.2) Attachment 3, Test Drum Data Sheet for Contact-Handled Waste.
 - (c.3) Audio/video recorded media of the test drum.

[C.4] Training Container

NOTE

A Training Container is required by CH and RH operators at initial qualification, requalification, and semi-annually. The nominal period for performance of the Training Container is every six months, due by the end of the month of the sixth month from the date the Training Container was successfully passed.

The Training Container will contain items which can be identified by RTR, are representative of the physical properties of the waste based on AK documentation reviewed, and prohibited items.

- (a) At initial qualification, requalification, and semiannually, successfully examine a Training Container and identify 100 percent of the items required to meet the Data Quality Objectives (DQO's).
- (b) Use Attachment 4, Training Container Instructions.
- (c) Documentation required for Training Containers is as follows:
 - (c.1) Attachment 2, CCP NDE Training Container Inventory Sheet (from CCP-TP-028)
 - (c.2) Attachment 5, Training Container Data & Evaluation Sheet
 - (c.3) Audio/video recorded media of the Training Container
- (d) The Nondestructive Examination (NDE) CE will review the audio/video recording to ensure the operator's interpretations remain consistent and accurate.

- (e) The NDE CE or an SPM may request an extension of the period between performances of the Training Container for up to one additional month (for a total of seven months between Training Containers, beginning with the date the examination was reviewed and approved by the CE).
 - (e.1) Upon receipt of a written request from the SPM or NDE CE, Training will extend the Training Container due date for the operator on the LOQI.
 - (e.2) The request will be retained by Training.
 - (e.3) When Training receives evidence the operator has satisfactorily completed the Training Container, Training will enter a due date for the next Training Container that takes into account the earlier extension (e.g., five month due date, not six month).
 - (e.4) If the operator exceeds the one month extension due date on the LOQI, Training will remove the individual from the LOQI until the Training Container has been successfully completed.
 - (e.5) Extension is not permitted at the time of requalification.

NOTE

Certification of RTR Operator/ITR personnel is documented on the completed qualification card.

- [D] Qualification
 - [D.1] Successful qualification of the RTR Operator/ITR is documented by completing the Qualification Card.
 - [D.2] To maintain qualifications, the CH and RH RTR Operator/ITR must perform a Training Container semiannually, documented on Attachment 5.

[D.3] Complete an annual eye examination.

[E] Requalification

[E.1] Requalification is based on evidence of satisfactory performance of a test drum, a training container, and passing a comprehensive exam with a grade of 80 percent or better once every two years. If necessary, additional training may be required by a SME/OJT, an SPM, the CE, or the Manager Responsible for Training.

4.3.3 Transportation personnel who require qualification in HLD are trained in accordance with CCP-QP-030 and documented on Attachment 1, CCP HLD Qualification Card of CCP-QP-030.

4.3.4 Transportation personnel who require qualification in PCLT are trained in accordance with CCP-QP-032 and documented on Attachment 1, CCP PCLT Qualification Card of CCP-QP-032.

4.3.5 NDA EA requires the completion of a EA Qualification Card.

4.3.6 VE Operator/ITR

[A] For the initial qualification and subsequent requalification, the Operator/ITR must:

[A.1] Pass comprehensive exam with an 80 percent or better grade that addresses VE operations, documentation, characterization, formal training elements, and procedural elements.

[A.2] VE Operators must demonstrate capability in the presence of the site VEE during OJT. However, the formal and OJT training is conducted by a qualified SME.

4.4 Appointments

4.4.1 For VEE candidate(s), an SPM performs the following:

[A] Review the training files for qualification/familiarity to waste stream, experience handling TRU waste, and VE Operator qualifications.

[B] Provide written notification to Training delineating the candidate's qualifications and experience, using Attachment 7.

[C] Ensures that the appointments are facility-specific.

4.4.2 For NDA EA candidate(s), an SPM will perform the following:

[A] Review the training files for an undergraduate degree in physical science or engineering and five years NDA experience; or ten equivalent years of experience in the NDA field.

[B] Provide written notification to Training delineating the candidate's qualifications and experience, using Attachment 7.

4.4.3 For RH Technical Staff candidate(s), an SPM will perform the following:

[A] Review the training files for the minimum requirements identified in Attachment 1.

[B] Provide written notification to Training delineating the candidate's qualifications and experience, using Attachment 7.

5.0 RECORDS

5.1 Records generated during the performance of this plan are maintained as quality assurance (QA) records in accordance with CCP-QP-008. The records are the following:

5.1.1 QA/Nonpermanent Records

- [A] Attachment 7, SPM Appointment Letter
- [B] Letters to Training
- [C] Certificates of Completion
- [D] Training Analysis
- [E] Qualification and training records
 - [E.1] OJT records
 - [E.2] Completed exams
 - [E.3] Qualification Card
- [F] Training materials (e.g., course presentation, exam)
- [G] Completed attendance/briefing forms,
- [H] Attachment 3, Test Drum Data Sheet for Contact-Handled Waste
 - [H.1] Audio/video recording media (primary and backup)
- [I] Attachment 5, Training Container Evaluation Data Sheet
 - [I.1] Audio/video recording media (primary and backup)
- [J] Resumes as applicable
- [K] Comprehensive Examinations
- [L] WAP Briefing

- [M] Eye Examination (Medical)
- Attachment 6, Annual Record of RTR Eye Examination, when applicable
 - Independent Eye Examination (from medical facility), when applicable
- [N] Training Module (Electronic)

Attachment 1 – Minimum Training, Education, and/or Experience

Personnel	Education/Experience/Requirements
1. Radiography	
Radiography Operators	Site specific training based on waste matrix codes and waste material parameters; requalification every two years.
2. Nondestructive Assay (NDA)	
NDA Personnel	In accordance with ASTM C1490, <i>Standard Guide for Selection, Training, and Qualification of Nondestructive Assay (NDA) Personnel</i> ; ANSI N15.54, <i>Radiometric Calorimeters - Measurement Control Program</i> .
3. Technical Staff	
RH Technical Staff	<p>B.S. Nuclear Engineering or the equivalent knowledge and experience to perform assigned tasks, including:</p> <ul style="list-style-type: none"> • Calculation of reactor neutron spectra • Generate ORIGEN format cross sections • Perform ORIGEN isotope generation and depletion calculations • Ensure that appropriate samples are collected and analyzed from waste • Perform shielding calculation of waste containers <p style="text-align: center;">OR</p> <p>B.S. degree in statistics or the equivalent knowledge and experiences to perform assigned tasks, including:</p> <ul style="list-style-type: none"> • Develop Sampling plan to obtain representative samples of waste. <p>Propagate uncertainties to determine Total Measurement Uncertainty.</p>
RH Technical Reviewer	<ul style="list-style-type: none"> • Equivalent qualifications necessary to have originally performed the task under review. <p>At least five years experience in the technical area applicable to the review task.</p>

Attachment 2 – Test Drum Instructions for Contact-Handled Waste Drums

OPERATOR

- 1.0 In the presence of an RTR SME/OJT Instructor, perform the following:
 - 1.1 Pre-start operations and audio/video recording media system setup of the RTR equipment per site approved radiography operating procedure.
 - 1.2 Load the test drum into the RTR unit.
 - 1.3 Ensure the audio/video recording identifies the following information:
 - [A] The identifying test drum container (e.g., NDE-TEST-01)
 - [B] Exam date
 - [C] Operator's name
 - 1.4 Complete Blocks 1 through 4 of Attachment 3.
 - 1.5 Perform scan of the test drum, identifying test drum container, and complete Block 5 of Attachment 3. Provide a detailed description (including content) of all items found within the container.
 - 1.6 Complete Block 6 of Attachment 3.
 - 1.7 Label the audio/video media with the following information:
 - [A] The identifying training container (e.g., NDE-TEST-01)
 - [B] Exam date
 - [C] Operator's name
 - [D] "A" for primary or "B" for backup
 - 1.8 Provide the audio/video recording media and Attachment 3 to an RTR SME/OJT Instructor.

SME/OJT INSTRUCTOR

- 2.0 Observe the test drum and complete Attachment 3 as follows:
 - 2.1 Complete Blocks 7 and 8 of Attachment 3.
 - 2.2 **IF** the Operator has correctly identified the items within the test drum, **THEN** perform the following:
 - 2.2.1 Enter N/A in Block 9 of Attachment 3.
 - 2.2.2 Check PASS in Block 10 of Attachment 3.

Attachment 2 – Test Drum Instructions for Contact-Handled Waste Drums (Continued)

- 2.2.3 Print name, sign, and date in Block 11 of Attachment 3.
- 2.2.4 Forward the audio/video recording media and Attachment 3 to Training in accordance with CCP-QP-008.
- 2.3 **IF** the Operator **DOES NOT** identify all WAC required items in Block 8 of Attachment 3 correctly,
THEN perform the following:
 - 2.3.1 If applicable, document unidentified non-WAC required items in Block 9 of Attachment 3, **ELSE** enter N/A.
 - 2.3.2 Check FAIL in Block 10 of Attachment 3.
 - 2.3.3 Print name, sign, and date in Block 11 of Attachment 3.
 - 2.3.4 Notify an SPM and Training.
 - 2.3.5 Forward Attachment 3 and the audio/video recording media to Training in accordance with CCP-QP-008.

NOTE

RTR Personnel who fail the test drum will be requalified after meeting initial qualification requirements.

- 2.4 **IF** any items (other than WAC-required items) were not identified,
THEN discuss and document the noted discrepancies with the Operator.
 - 2.4.1 Document unidentified items in Block 9 of Attachment 3, **AND** discuss with the Operator.
 - 2.4.2 Check PASS in Block 10 of Attachment 3.
 - 2.4.3 Print name, sign, and date in Block 11 of Attachment 3.
 - 2.4.4 Forward Attachment 3 with the audio/video recording media to Training in accordance with CCP-QP-008.

Attachment 2 – Test Drum Instructions for Contact-Handled Waste Drums (Continued)

TRAINING

- 3.0 Ensure receipt of all required test drum documentation.
- 4.0 **IF** notified by the RTR SME/OJT Instructor that a currently qualified Operator has failed the test drum,
THEN remove the Operator from the LOQI **AND** update the Training files.
- 5.0 **IF** Attachment 3 indicates PASS,
THEN update the LOQI and the Training files.

Attachment 3 – Test Drum Data Sheet for Contact-Handled Waste

Page 1 of 2

1. Operator Name:	
2. Test Drum #:	3. Date of Demonstration:
4. Audio/Video Recording Media Label:	
5. Container Inventory (Provide detailed description)	
6. Operator Signature: _____ Date: _____	

Attachment 3 – Test Drum Data Sheet for Contact-Handled Waste (Continued)

7. Operator Name:			
8. WAC Required Items (SME check items identified by operator)			
	Aerosol can with puncture		Full container
	Horsetail bag		Aerosol can with fluid
	Pair of coveralls		One gallon bottle with three tablespoons of fluid
	Empty bottle		One gallon bottle with one cup of fluid (upside down)
	Irregular shaped pieces of wood		Leaded glove or leaded apron
	Empty one gallon paint can		Wrench
9. Additional items not identified:			
10. As SME/OJT Instructor, I observed the above demonstration and have discussed any missed items with the Operator. I have assigned a grade based on the review above.		PASS	FAIL
11. SME Printed Name: _____			
SME Signature: _____ Date: _____			

Attachment 4 – Training Container Instructions

OPERATOR

- 1.0 Perform the following:
 - 1.1 Complete Blocks 1 through 4 of Attachment 5.
 - 1.2 Verify the RTR unit and audio/video system is configured to run the training container.
 - 1.3 Load the training container into the RTR unit.
 - 1.4 Ensure the audio/video recording identifies the following information:
 - [A] The identifying training container (e.g., NDE-TRAINING-01)
 - [B] Exam date
 - [C] Operator's name
 - 1.5 Perform scan of the training container, identifying training container, detailed description of contents including container sizes and volumes of liquid.
 - 1.6 Document the scan information in Block 5 of Attachment 5.
 - 1.7 Complete Block 6 of Attachment 5.
 - 1.8 Label the audio/video media with the following information:
 - [A] The identifying training container (e.g., NDE-TRAINING-01)
 - [B] Exam date
 - [C] Operator's name
 - [D] "A" for primary or "B" for backup
 - 1.9 Make a copy of training audio/video for the NDE CE. (Labeled the same add "Copy".)
- 2.0 Forward the audio/video (primary and backup) recording media and Attachment 5 to Training, in accordance with CCP-QP-008.
- 3.0 Forward the copy of the training audio/video to the NDE CE.

Attachment 4 – Training Container Instruction (Continued)

Training

4.0 Provide Attachment 5 to the NDE CE.

NDE CE

5.0 Review the Training Container scan and document discrepancies (accuracy and consistency) in Block 5 of Attachment 5.

6.0 Record in Block 8 of Attachment 5 if the operator passed or failed based on identification of the DQOs.

7.0 Print, Sign, and Date in Block 9, of Attachment 5.

8.0 If the Operator fails to identify an item that is not a DQO, counsel the operator on the item(s) missed.

8.1 If counseling was required, have the operator acknowledge receipt of the counseling in Block 10 of Attachment 5. The acknowledgement can be either with the operator signature, or via Telecon.

9.0 If additional actions are required in response to an operator's performance, the CE will coordinate with Manager Responsible for Training.

10.0 Forward Attachment 5 to Training in accordance with CCP-QP-008.

TRAINING

11.0 Ensure receipt of all required documentation,
THEN update the LOQI and the Training files.

Attachment 5 – Training Container Data & Evaluation Sheet

1. Operator Name:		2. Demonstration Date:	
3. Training Container #:		<input type="checkbox"/> Box	<input type="checkbox"/> Drum
4. Audio/Video Recording Media Label:			
5. Container Inventory (Provide detailed description)			
6. Operator Signature: _____		Date: _____	
7. I have counseled the operator on the following interpretation issues:			
8. I have assigned a grade based on the review above.		PASS	FAIL
9. NDE CE Printed Name: _____			
NDE CE Signature: _____		Date: _____	
10. Acknowledgement by the Operator of Counseling Received (if required):			
Operator Printed Name: _____			
Operator Signature: _____		Date: _____	

Attachment 6 – Annual Record of Eye Examination

Employee Name:		
Examination Date:		
Examined by:		
	Printed Name and Title	
	Signature	
Examination Type:	Jaeger-near acuity	
Jaeger Level Tested:	J-2	
Results: (circle one)	Pass	Fail
Contrast Proficient: (circle one)	Yes	No
<p>Note:</p> <p>A visual acuity examination shall be administered to the candidate prior to the initial qualification and annually thereafter.</p> <p>A professional optometrist, medical doctor, nurse, or personnel designee by procedure shall administer this examination.</p> <p>The candidates shall have natural or corrected near distance acuity in at least one eye, capable of reading J-2 letters on a standard Jaeger test chart at a distance of not less than 30.5 centimeters (12 inches).</p> <p>The candidate shall receive a contrast vision examination to verify the capability of distinguishing and differentiating contrast normally used.</p>		

Attachment 7 – SPM Appointment Letter

Date:

Subject: Appointment letter for (candidate's name) for the position of (name of position)

Based on (candidate's name) resume and/or personal knowledge of (name's) work history, I have determined (he/she) has suitable education and experience in accordance with CCP-QP-002, *CCP Training and Qualification Plan*, for the position of:

- (Insert Operation) Operator/ITR at (name site[s]).
- Expert Analyst for (insert specific NDA equipment and location)
- RH Technical Staff
- (Initial) Subject Matter Expert (SME) for (insert operation or NDA unit).
- Visual Examination Expert (VEE) for the (name facility and site). This is a (CH or RH) function. I have reviewed (candidate's name) training file for qualification/familiarity to the applicable waste streams, experience handling TRU waste, and VE Operator qualifications.

For Initial SMEs: (Candidate's Name) will assist (assisted) with the set-up of (equipment name) at (site). As the initial SME, (Name) will assist (also assisted) with the development of procedures and a qualification card specific to the (unit/site).

Please initiate, as applicable, the CCP-specific training. (Candidate's name) will not be considered qualified for this(these) position(s) until all applicable/required training is complete, on file with CCP Training, and listed on the applicable LOQI(s).

If you have any questions, please contact me.

Thank you,

(SPM Name)
Site Project Manager

CCP-QP-005

Revision 24

CCP TRU Nonconforming Item Reporting and Control

EFFECTIVE DATE: 04/29/2014

Mike Ramirez

PRINTED NAME

APPROVED FOR USE

RECORD OF REVISION

Revision Number	Date Approved	Description of Revision
17	08/27/2008	Revised to include language describing the process the Central Characterization Project (CCP) personnel use when performing open Nonconformance Report (NCR) checks and whether the NCR is "resolved" for a particular container in conjunction with software changes to the Progress Tracking System (PT-S) (NCR status) portion of the CCP Datacenter. Also included additional language with respect to reconciliation of HOLD Tags once the NCR's are cleared for containers and incorporated the directive in Standing Order CCP-SO-30, Clarification of Rework and Reject. This is in response to U.S. Department of Energy-Carlsbad Field Office (DOE/CBFO) Corrective Action Report (CAR) CAR-08-025.
18	08/13/2009	Revised to incorporate freeze file editorial changes, clarify the ability to delete/remove containers from the Batch Data Report (BDR)/Container ID list when revising a nonconformance report (NCR) per CAR-LANL-0001-09, and incorporate Central Rev. Characterization Project (CCP) Standing Order (SO) CCP-SO-024, 1.
19	10/14/2010	Revised to: clarify hold tag application; Carlsbad Field Office (CBFO) notification requirements including responsibility, incorporate CCP-SO-054, 1 and CCP-SO-065, 0; revisions to Attachment 1, CCP Nonconformance Report (NCR); and other minor editorial changes.
20	04/26/2011	Revised to incorporate relevant steps from CCP-QP-004, <i>CCP Corrective Action Management</i> , and other editorial changes.
21	03/05/2012	Revised to incorporate clarification of K-trend code designees signature authority and other editorial changes and freeze file items.
22	09/27/2012	Revised to add definitions; to move 2.5.1 to 4.2.1 [F]; to clarify 4.4.15 and Attachment 1, 4.2.10, and Carlsbad Field Office (CBFO) notification in 4.3.1; to add new 4.9.3 to address removal of Hold Tags when voiding a Nonconformance Report (NCR); to incorporate freeze file changes; to modify Attachment 1; to correct some typos and editorial mistakes.

RECORD OF REVISION (CONTINUED)

Revision Number	Date Approved	Description of Revision
23	06/25/2013	Revised to incorporate Nuclear Waste Partnership (NWP) transition changes; ensure chronological order; to change Notes that include action steps to action steps; to remove contradiction with CCP-PO-024, <i>CCP/INL Interface Document</i> , in 4.5.10 [A.2]; to add Attachment 2, Instructions for Completing Attachment 1, CCP Nonconformance Report, and Attachment 6, NCR Hold Tag Guidance, incorporating portions of Standing Order CCP-SO-036 and to implement the Permit Modification Request Class 2 approved by New Mexico Environment Department (NMED) dated March 13, 2013.
24	04/29/2014	Revised determination of recurring condition; deleted all references to CCP-QP-029 and internal Corrective Action Reports (CARs) which was obsoleted and replaced with WP 15-GM1002; replaced reference Carlsbad Field Office (CBFO) Quality Assurance Program Description (QAPD) with Nuclear Waste Partnership (NWP) QAPD; rearranged 4.1.6, 4.2.10 and 4.2.11 for better chronological order; revised definitions "Repair" and "Rework"; corrected various editorial mistakes.

TABLE OF CONTENTS

1.0	PURPOSE.....	6
1.1	Scope.....	6
2.0	REQUIREMENTS.....	7
2.1	References	7
2.2	Definitions	8
2.3	Nonconformance Report Module (NCRM).....	10
3.0	RESPONSIBILITIES.....	12
3.1	NCR Originator	12
3.2	QA	12
3.3	QA Designee	12
3.4	Responsible Manager.....	13
3.5	CCP Site Project Manager (SPM).....	13
3.6	Vendor Project Manager (VPM).....	14
3.7	NCR Coordinator (Site QA serves as the NCR Coordinator for the assigned site).....	14
3.8	CCP Training	14
3.9	Certification Manager.....	15
3.10	Waste Certification Official (WCO).....	15
3.11	Packaging Manager.....	15
4.0	PROCEDURE.....	16
4.1	NCR Initiation.....	16
4.2	NCR Review	21
4.3	NCR Validation	24
4.4	NCR Process	24
4.5	Disposition Determination	26
4.6	NCRM Update	30
4.7	Disposition Completion	30
4.8	Completion Verification and Closeout.....	31
4.9	Closeout.....	32
4.10	Voiding the NCR	32
4.11	Attachments.....	33
4.12	Revisions	34
4.13	NCR Log Reconciliation - CCP Project Office and Host Site	34
4.14	Work Suspension and CBFO Stop Work Orders	35
5.0	RECORDS.....	37

LIST OF ATTACHMENTS

Attachment 1 – CCP Nonconformance Report (NCR).....	38
Attachment 2 – Instructions for Completing Attachment 1, Nonconformance Report (NCR)	41
Attachment 3 – CCP Nonconformance Report (NCR) Continuation Sheet	44
Attachment 4 – Additional CBFO Notification Details	45
Attachment 5 – Trend Codes	46
Attachment 6 – NCR Hold Tags Guidance.....	48

1.0 PURPOSE

This procedure establishes the requirements and responsibilities for identifying, documenting, reporting, and dispositioning items and services that do not meet established requirements.

1.1 Scope

- 1.1.1 This procedure applies to Central Characterization Program (CCP) waste characterization, certification, packaging, and transportation. It establishes the process for identifying, documenting, controlling, evaluating, dispositioning, and verifying completion of dispositioning of nonconforming conditions associated with items, equipment, and Batch Data Reports (BDRs).
- 1.1.2 Nonconforming items will be controlled to prevent any adverse impact on test, installation, use, waste certification, or waste shipment. Organizations affected by the nonconformance will be notified.
- 1.1.3 Personnel evaluating and determining the disposition of nonconforming items will have demonstrated competence in the specific area they evaluate, adequate understanding of the requirements, and access to pertinent background information.

2.0 REQUIREMENTS

2.1 References

Baseline Documents

- WP13-1, *Nuclear Waste Partnership, LLC, Quality Assurance Program Description (QAPD)*
- CCP-PO-002, *CCP Transuranic Waste Certification Plan*
- CCP-PO-003, *CCP Transuranic Authorized Methods for Payload Control (CCP CH-TRAMPAC)*
- CCP-QP-010, *CCP Document Preparation, Approval, and Control*

Referenced Documents

- DOE/WIPP-02-3214, *Remote-Handled TRU Waste Characterization Program Implementation Plan*
- CCP-PO-001, *CCP Transuranic Waste Characterization Quality Assurance Project Plan*
- CCP-QP-008, *CCP Records Management*
- CCP-QP-014, *CCP Quality Assurance Trend Analysis and Reporting*
- CCP-QP-019, *CCP Quality Assurance Reporting to Management*
- CCP-TP-001, *CCP Project Level Data Validation and Verification*
- CCP-TP-035, *CCP Container Management*
- CCP-TP-068, *CCP Standardized Container Management*
- CCP-TP-120, *CCP Container Management*
- WP-15-GM1002, *Issues Management Processing of WIPP Forms*
- 10 Code of Federal Regulations (CFR) Part 71, *Packaging and Transportation of Radioactive Material*

2.2 Definitions

As Low As Reasonably Achievable (ALARA)	A principle of all work at the site in the use or handling of radioactive materials in which personnel radiation exposure, including the work force and public, is kept at a level as low as possible by reasonable means.
Condition Adverse to Quality (CAQ)	An all-inclusive term used in reference to any of the following: failures, malfunctions, deficiencies, defective items, nonconformances, and technical inadequacies.
Data Quality Objective (DQO) Process	A strategic planning approach based on the scientific method used to prepare for data collection. The Data Quality Objective (DQO) process provides a systematic procedure for defining the criteria that a data collection design should satisfy, including when and where to collect samples, the tolerable level of decision errors for the study, and how many samples to collect.
Item	An all-inclusive term used in place of any of the following: appurtenance, assembly, component, equipment, material, module, part, structure, subassembly, subsystem, system, unit, support system, or data.
NCRM (Nonconformance Report Module)	Nonconformance Report Module (NCRM), an electronic database that is part of the Integrated Data Center (IDC).
Nonconformance	A deficiency in a characteristic or record that renders the quality of an item or sample unacceptable or indeterminate.
Orphaned Hold Tag	A Hold Tag no longer attached to its associated nonconforming item.

Price-Anderson Amendments Act (PAAA)	Law passed by Congress intended to minimize the risk to workers and the public by ensuring that U.S. Department of Energy (DOE) nuclear work is conducted so that human health and safety and the environment are protected adequately.
Repair	<p>The process of restoring an item to a condition such that the capability of the item to function reliably and safely is unimpaired even though that item still does not conform to the original requirement.</p> <p>In container management, "repair" refers to nonconforming characteristics for which the container(s) must be rerun through characterization and the associated BDR that will be superseded by a new one.</p>
Reject	A disposition for nonconforming items for which no resolution that meets the given requirements is possible, and the item cannot be accepted, requiring discarding, replacement, or recharacterization.
Rework	<p>The process by which an item is restored to original specifications by completion or correction.</p> <p>In container management, "rework" refers to nonconforming characteristics that may be corrected without rerunning the container(s) through characterization and the BDR will be completed or corrected.</p>
Scrap	A disposition for nonconforming items which requires discarding or return to supplier.
Supplier	Any individual or organization who furnishes items or services in accordance with a contract. An all-inclusive term used in place of any of the following: vendor, seller, source, participant, contractor, or subcontractor.

Technical Change	Changes to container or BDR identifications, Interim or Final Dispositions, Actual Conditions, or Requirements.
Traceability	<p>The ability to trace the history, application, and location of an item, data, or sample using documentation. As related to metrology, traceability means the ability to relate individual measurement results through an unbroken chain of calibrations to one or more of the following:</p> <ul style="list-style-type: none">• U.S. national standards maintained by National Institute of Standards and Technology (NIST) or the U.S. Naval Observatory• Fundamental or natural physical constants with values assigned or accepted by NIST• National standards of other countries which are correlated with NIST
Use-As-Is	A disposition permitted for a nonconforming item when it can be established that the item is satisfactory for its intended use.
Work	The process of completing a defined task. Examples include research and development, operations, maintenance and repair, administration, software development and use, inspection, safeguards and security, and data collection and analysis.

2.3 Nonconformance Report Module (NCRM)

2.3.1 The NCRM provides the capability for an accurate and timely assessment of the status of all Nonconformance Reports (NCRs).

2.3.2 The NCRM provides the capability to trend NCRs for conditions adverse to quality.

2.3.3 The NCRM provides, as a minimum, the following:

- NCR Number and Revision
- Initiation Date
- NCR Originator

- Responsible Manager
- BDR/Container (as applicable)
- Actual Condition
- Final Disposition
- Trend Code
- Closure Date
- NCR Log

2.3.4 The NCRM is maintained in the CCP Project Office. The NCRM may also be updated by authorized QA personnel at specified Host sites.

3.0 RESPONSIBILITIES

3.1 NCR Originator

- 3.1.1 CCP personnel who discover conditions adverse to quality are responsible for originating an NCR or ensuring an NCR is initiated.
- 3.1.2 Applies or ensures application of a CCP HOLD TAG or provides other segregation or control methods.

3.2 QA

- 3.2.1 Validates the NCR.
- 3.2.2 Evaluates NCRs in accordance with this procedure.
- 3.2.3 Approves interim and final dispositions.
- 3.2.4 Ensures that NCRs are entered into the NCRM.
- 3.2.5 Verifies interim and final disposition completion and closes NCRs.
- 3.2.6 Applies, removes, or ensures application or removal of CCP HOLD TAGS (as applicable).
- 3.2.7 Immediately notifies the SPM or Vendor Project Manager (VPM) when HOLD TAGS DO **NOT** reconcile or when orphaned HOLD TAGS are found in process areas.
- 3.2.8 Provides CCP Training with a notification of individuals who are designated to validate and approve dispositions for NCRs that are Trend Code K. These individuals will have been briefed and designated for this function by Quality Assurance (QA).
- 3.2.9 Assists the NCR Originator as needed to determine status of all affected containers associated with NCRs initiated at the Project level.

3.3 QA Designee

- 3.3.1 Validates Trend Code K NCRs.
- 3.3.2 Approves interim and final dispositions for Trend Code K NCRs.
- 3.3.3 Ensures that NCRs are forwarded to the Host site QA NCR Coordinator or the CCP Project Office NCR Coordinator for entry into the NCRM.

3.3.4 Applies, removes, or ensures application or removal of CCP HOLD TAGS (if applicable) for Trend Code K NCRs and delivers removed HOLD TAGS to QA for confirmation of removal.

3.4 Responsible Manager

3.4.1 Provides interim and final dispositions to correct identified deficiencies.

3.4.2 Identifies resolutions to deficiencies and (when applicable) identifies actions to preclude recurrence.

3.4.3 Monitors progress of nonconformance resolution, including completion of dispositions in a timely manner.

3.4.4 Provides for the control of further processing, delivery, installation, or operation of nonconforming items or equipment.

3.5 CCP Site Project Manager (SPM)

3.5.1 Ensures NCR process is followed in accordance with this procedure and is accountable for the implementation of the nonconformance program.

3.5.2 Coordinates Carlsbad Field Office (CBFO) notification between the Certification Manager and the NCR Coordinator.

3.5.3 Prepares interim and final dispositions.

3.5.4 Verifies interim and final disposition completion.

3.5.5 Ensures forwarding of validated and in-process NCRs to the CCP Project Office for NCRM updates, as necessary.

3.5.6 Ensures distribution of completed NCRs as required by applicable interface documents.

3.5.7 Notifies CBFO of nonconformances as required by this procedure.

3.5.8 Monitors to ensure timely completion of NCRs in their area of responsibility, developing a plan to identify and track all nonconformances and reporting this information (approval of this procedure fulfills development of the plan).

3.5.9 Carries out responsibilities of the Responsible Manager, when an NCR so specifies.

- 3.6 Vendor Project Manager (VPM)
 - 3.6.1 Ensures site personnel evaluating and dispositioning NCRs have demonstrated competence in the specific area they evaluate, have an adequate understanding of the requirements, and have access to pertinent background information.
 - 3.6.2 Monitors to ensure timely completion of NCRs in their area of responsibility.
 - 3.6.3 Carries out responsibilities of the Responsible Manager, when an NCR so specifies.
 - 3.6.4 Concurs with interim and final dispositions (as requested).
 - 3.6.5 Ensures the application of CCP HOLD TAGS and, in coordination with QA, ensures their removal, as required, and will assure removed CCP HOLD TAGS are delivered to QA for verification of removal.
 - 3.6.6 Notifies the Host site representative of drums that are inaccessible with a request to make them available as soon as possible so that the drums may be monitored and tagged as soon as they are available.
- 3.7 NCR Coordinator (Site QA serves as the NCR Coordinator for the assigned site)
 - 3.7.1 Maintains the NCR Log.
 - 3.7.2 Distributes NCRs in accordance with this procedure.
 - 3.7.3 Submits closed NCRs to CCP Records.
 - 3.7.4 Updates the NCRM.
- 3.8 CCP Training
 - 3.8.1 Annotates each site-specific List of Qualified Individuals (LOQI) with a qualified statement for individuals who have been designated by QA.
 - 3.8.2 Maintains designation notifications in each individual's training file.

3.9 Certification Manager

3.9.1 Ensures a consistent review for all NCRs that have the potential to require CBFO notification according to the seven (7) calendar days notification requirement.

3.10 Waste Certification Official (WCO)

3.10.1 Assists the NCR Originator as needed to determine status of all affected containers associated with NCRs initiated at the Project level.

3.11 Packaging Manager

3.11.1 Reviews NCRs whose description is Transportation for 10 CFR, Part 71, *Packaging and Transportation of Radioactive Material*, applicability.

NOTE

Action steps need not be completed in the order given, unless otherwise directed.

4.0 PROCEDURE

4.1 NCR Initiation

QA

4.1.1 Maintain an NCR log (either manual or electronic at the Host site or CCP Project Office), identifying the following as a minimum:

- NCR number
- Initiation date
- NCR Originator

[A] Account for all NCRs issued during a calendar year, including voided NCRs. Number and log NCRs uniquely.

[B] The NCR number is composed of:

NCR-xxxxxx-yyyy-zz, where:

- “NCR” represents “Nonconformance Report”
- “xxxxxx” represents Site Designator (when applicable to remote-handled [RH] waste, include “RH” as a prefix to the site designator [e.g., Savannah River Site remote-handled waste = “RHSRS”])
- “yyyy” represents numerical digits beginning at 0001
- and “zz” represents the final two digits of the calendar year in which the NCR is initiated

Revision control applies.

[C] Examples of NCR Numbers:

- NCR-INL-0001-12, Rev. 0
- NCR-SRS-0361-12, Rev. 1
- NCR-LANL-2841-12, Rev. 2
- NCR-CCP-0015-12, Rev. 0
- NCR-RHLANL-0001-12, Rev. 0

NCR Originator

4.1.2 CCP personnel who discover nonconforming items or processes are responsible for initiating NCRs or to notify their managers for assistance in ensuring that an NCR is initiated. Personnel are encouraged to suggest improvements. Nonconformances are documented, evaluated, and dispositioned with a no-fault attitude fostered by management at all levels. On identifying a nonconforming item, obtain the current issued revision of Attachment 1, CCP Nonconformance Report (NCR), from the sftp site.

[A] Document nonconforming items by NCR, including those found by CCP personnel at a supplier's facility or during receipt inspection.

4.1.3 Obtain an NCR number from the NCR Coordinator or QA Designee, **AND** enter the number and revision on all pages of Attachment 1.

[A] Complete Blocks 1 through 7, as applicable, of the NCR (see Attachment 2, Instructions for Completing Attachment 1, Nonconformance Report [NCR]; see also 4.1.6 in regard to Block 7d).

[A.1] Enter "N/A" (Not Applicable) for those blocks **NOT** applicable to the NCR. Use Attachment 3, CCP Nonconformance Report (NCR) Continuation Sheet, whenever available space is inadequate.

[B] **IF** the NCR is documented against a container and a BDR, **THEN** ensure that Block 3 correctly identifies the container number and BDR number, matching exactly the identifications (IDs) identified in the BDR (see also 4.2.1[C.1]).

NCR Originator/Waste Certification Official (WCO)/QA

[C] Determine the status of all affected container(s) associated with NCRs initiated at the Project level as follows:

[C.1] **IF** the containers are not in a shipping lot, **THEN** go to 4.1.5.

- [C.2] **IF** the containers are in a shipping lot,
THEN it must be determined whether the container is
in Waste Data System (WDS).
- (a) **IF** the containers are in WDS **AND** the NCR is
not data-affecting,
THEN go to 4.1.5.
- (b) **IF** the containers are in WDS **AND** the NCR is
data-affecting,
THEN the container(s) must be moved into
assigned pre-sub certification **OR** removed
from WDS before the NCR can be validated by
QA.

CCP Training

4.1.4 Maintain a list of personnel designated to validate NCRs and
approve Interim and Final Dispositions for Trend Code K NCRs.

- [A] Designated CCP personnel may validate and approve
Interim and Final Dispositions for these NCRs. Those steps
in Section 4.0 that designated CCP personnel may carry out
as described above identify the responsible individual as
“QA Designee.”
- [B] However, QA must validate and approve NCRs which are
not Trend Code K.
- [C] QA SHALL verify disposition completion and closing of **ALL**
NCRs.

NCR Originator or QA Designee

4.1.5 Select method(s) to be used to control nonconforming items, but
they SHALL **NOT** be solely reliant on a single administrative control
to differentiate waste containers that are acceptable for shipment to
the Waste Isolation Pilot Plant (WIPP).

- [A] **DO NOT** use NCRs as administrative holds (e.g., to stop a
shipment when there is **NO** nonconformance). Refer to the
container management procedures at the specific sites for
more details on the proper use of administrative holds.

4.1.6 Determine whether CCP HOLD TAGS will be applied **OR** whether other methods will be used to control the affected items that do not affect end use, **AND** document in Block 7d of the NCR as applicable. Verify CCP HOLD TAGS by physically placing or confirming tag placement on the container by VPM's or QA Designee's confirmation in writing. If NCRs are initiated at the Project Office, they may be issued with Block 7d incomplete. Once notification is received by QA that NCR Hold Tags have been applied, update the NCR by completing Block 7d. Completion of this block does not require NCR revision.

[A] Apply CCP HOLD TAGS (see Attachment 6, NCR Hold Tag Guidance) **UNLESS** one or more of the following conditions exist:

- **IF** containers are physically inaccessible, **THEN** inform the VPM to notify the Host site representative of drums that are inaccessible with a request to make them available as soon as possible so that the drums are monitored and tagged as soon as they are available
- Container is an RH container
- Other physical identification methods (i.e., Permanent Reject Labels Not Certifiable to WIPP)
- If Final Disposition is already specified, is "Use-As-Is" with no action pending, and is QA approved

[B] Enter the following minimum information on the CCP HOLD TAG:

- NCR number
- Container or Item number
- BDR number (if applicable)
- Brief description of nonconforming condition
- Name, date, and signature of individual who applies the CCP HOLD TAG
- Any limitations on further processing

- [C] When they are applied, the CCP HOLD TAGS SHALL remain on the containers until the nonconforming condition has been resolved and the disposition has been implemented and verified under the QA Program.
- [D] Other methods used to control the affected items may include segregation or the use of dual, independent check systems (for noncompliant RH waste packages based on the ALARA principle), which use two separate and distinct processes and data sets for verifying waste packages are acceptable for shipment.
- [E] **IF** marking or tagging of a nonconforming item is impractical, **OR** segregation is impractical or impossible because of physical conditions, **THEN** employ other precautions to preclude inadvertent use or shipment.
- [F] Control nonconforming items to prevent adverse impact on test, installation, use, waste certification, or waste shipment.
- [G] Notify organizations affected by the nonconformance.

4.1.7 Complete Blocks 7a, 7b, and 7c of Attachment 1

- [A] Check the Transportation box in Block 7a only when issues with TRUPACT-II *TRU Waste Authorized Methods for Payload Control*, TRUPACT-III *TRU Waste Authorized Methods for Payload Control*, TRAMPAC limits, and packaging materials or conditions for shipped containers are identified.
- [B] Ensure the 7b Requirement(s) correctly includes the procedure, revision, section, and quoted text, and the 7c Actual Condition is accurate.
- [C] Print name, sign, and date Block 8.

4.1.8 Forward the NCR to the QA Engineer or QA Designee (Trend Code K NCRs only).

4.1.9 **IF** the NCR is initiated at the Host site, **AND** there is **NO** SPM, QA Engineer or QA Designee available,
THEN:

- [A] Copy the NCR and forward it to the responsible individual at the Host site for NCR Log update, if needed.
- [B] Forward the NCR to the NCR Coordinator in the CCP Project Office. The NCR Coordinator will initiate a review by a QA Engineer.

4.2 NCR Review

QA Engineer or QA Designee

4.2.1 Review the NCR for the following, at a minimum:

- [A] Verify that the identified condition and requirement meet the criteria for an NCR (i.e., hardware items or BDRs, or both) and do **NOT** represent a programmatic or process failure, malfunction, or deficiency as specified in WP 15-GM1002, *Issues Management Processing of WIPP Forms*.
- [B] **IF** the nonconformance is determined to meet the criteria for a WIPP Form,
THEN void the NCR in accordance with Section 4.10, **AND** instruct the NCR Originator to initiate a WIPP Form in accordance with WP 15-GM1002.
 - [B.1] When control of nonconforming items **AND** programmatic issues related to the nonconformance both apply, initiate both an NCR **AND** a WIPP Form.
- [C] **IF** the NCR is documented against a container and a BDR,
THEN verify that Block 3 correctly identifies the container number and BDR number, matching exactly the IDs identified in the BDR.
 - [C.1] **IF** the IDs do not match,
THEN ensure there is a valid reason for the difference, such as WDS number prefixes, historical ID number differences, etc., **OR** ensure the numbers in question are captured on the acceptable knowledge (AK) Tracking spreadsheet and show a clear correlation between the two.
- [D] Verify that the current revision of Attachment 1 has been used, the NCR number and revision are on all pages of the NCR, **AND** the form is filled out correctly.

[E] Verify that the identified requirement (procedure no., revision no., section, and quoted text) is correct and applies to the actual condition requiring disposition.

[F] Verify the disposition, if already documented in Block 19, was not completed prior to the date of NCR validation.

4.2.2 Resolve any inconsistencies, clarifications, or other concerns identified, with the NCR Originator, who returns to 4.1.2[A] **AND** repeat the process in accordance with Section 4.1.1.

4.2.3 **IF** the NCR is determined to be invalid,
THEN void the NCR in accordance with Section 4.10.

4.2.4 Determine whether the identified condition has the potential to impact AK (i.e., related to waste stream variance, waste matrix code, etc.), and, if so, enter Trend Code L in Block 10. Examples of possible changes to the AK of a waste stream include:

- Incorrect assignment of a waste container to a waste stream (e.g., sludge matrix in a debris container)
- Identification of unanticipated waste material parameters (WMPs) in a container (e.g., metal in a combustibles-only debris container)

4.2.5 Identify the Trend Code using NCR Trend Codes in Attachment 5, **AND** enter the Trend Code in Block 10, if not previously identified in 4.2.4.

4.2.6 Forward NCRs that identify possible changes to the AK of a waste stream (Trend Code L) to the SPM as the Responsible Manager.

[A] **IF** reevaluation is warranted as a result of:

- Inconsistencies noted during the process of comparing AK information to characterization results, **OR**
- The initiation of an NCR identifies potential changes to the AK of a waste stream,

THEN the SPM notifies the AK Expert.

4.2.7 Verify that the Hold Tags have been applied as needed, **AND** complete Block 7d, if not addressed by NCR Originator or QA Designee (see 4.1.6).

- 4.2.8 Except for Trend Code K and L NCRs, determine whether a Significant Condition Adverse to Quality exists by comparing with the following criteria:
- [A] Does the noncompliance adversely impact the capability to characterize, certify, or ship waste?
 - [B] Is the noncompliance a violation of the Hazardous Waste Facility Permit (HWFP)?
 - [C] Could the noncompliance have a serious effect on health and safety of employees, the public, or the environment?
- 4.2.9 Except for Trend Code K and L NCRs, search the NCRM in IDC to determine whether there are previous violations of the same requirement and the Actual Condition is the same or similar, that is, one that involves the same process (nondestructive assay [NDA], real-time radiography [RTR], visual examination [VE], etc.), the same organization or personnel (Operations, AK Support, Transportation, Packaging & Logistics, etc.), elements of the QA Program (measuring and test equipment, inspection, document control, etc.), or individual vendors within a length of time that infers a potential connection.
- 4.2.10 **IF** a recurring condition is identified, **THEN** discuss with the Assurance Programs Manager, who will determine whether the recurring nature of the conditions represents a Significant Condition Adverse to Quality. If directed, initiate a WIPP Form in accordance with WP 15-GM1002, *Issues Management Processing of WIPP Forms*, control as a Significant Condition, cite the NCR number and revision in the WIPP Form, **AND** document the determination in an email to the NCR Coordinator, who will include it as part of the NCR QA record file.
- [A] If the determination of a Significant Condition Adverse to Quality is affirmed, check "yes" in NCR Block 12, and enter in the NCRM.
- 4.2.11 The recurring conditions will be cited in the Semiannual Report required by CCP-QP-019, *CCP Quality Assurance Reporting to Management*, and include any corrective and preventive actions taken as a result.

NOTE

The Responsible Manager determination is based on agreements between the SPM, QA Engineer, and applicable Responsible Managers.

4.2.12 Determine the manager responsible for resolution.

4.2.13 Enter the Responsible Manager's name in Block 11.

4.3 NCR Validation

4.3.1 Before validation (Block 14), line through incorrect technical information and enter correct information, initial, and date.

4.3.2 Correct editorial mistakes (grammar or spelling, renumbering sections, attachments or pagination; transcription errors and date) that **DO NOT** affect technical content by lining through, entering correct data, initialing, and dating at any time during the life cycle of the NCR.

4.4 NCR Process

NCR Coordinator

4.4.1 At receipt of the NCR:

[A] Verify the information in the NCR log matches that on the NCR.

[B] Enter the NCR information in the NCRM.

[C] **IF** the NCR Description in Block 7a is Transportation, **THEN** forward a copy of the NCR to the Packaging Manager or designee for consideration of 10 CFR, Part 71, applicability and request the results of the review.

Packaging Manager

[C.1] Review NCRs whose description is Transportation (in Block 7a) for 10 CFR, Part 71, applicability and email the NCR Coordinator the results of the review.

NCR Coordinator

[D] File a copy of the email from the Packaging Manager with the NCR.

- [D.1] **IF** the NCR was generated at or after the SPM signature level,
THEN forward a copy of the project-level NCR to the Certification Manager for review.

Certification Manager

- [D.2] Review the project-level NCR to determine whether any nonconformance first identified at or after the SPM signature release level (e.g., CCP-TP-001) does not meet applicable requirements of CCP-PO-001, *CCP Transuranic Waste Characterization Quality Assurance Project Plan* or DOE/WIPP-02-3214, *Remote-Handled TRU Waste Characterization Program Implementation Plan* (i.e., a failure to meet a DQO), and if so,
THEN inform in writing or by email the NCR Coordinator and SPM, the latter of whom notifies the CBFO as required.

SPM

- [D.3] Notify the CBFO in accordance with Attachment 4, Additional CBFO Notification Details, and as follows:
- **IF** the Certification Manager determined that the project-level NCR is reportable,
THEN notify CBFO within seven (7) calendar days of identification of the deficiency.
 - Copy the NCR Coordinator on the CBFO notification.

- [D.4] **IF** the NCR was unready for submittal when the notification was made,
THEN submit the NCR to DOE CBFO within thirty (30) calendar days of identification of the deficiency.

Certification Manager

- [D.5] **IF** the project-level NCR is determined not to be reportable,
THEN the NCR Coordinator receives an IDC notification that the NCR is not reportable.

NCR Coordinator

[D.6] The NCRM is updated automatically. File a copy of the CBFO notification and related e-mails with the NCR.

[E] Forward the NCR to the Responsible Manager.

4.5 Disposition Determination

Responsible Manager

4.5.1 Determine the need for interim disposition, **AND**, if applicable, identify any additional approval requirements.

[A] Use Interim Dispositions only when necessary to determine the Final Disposition.

4.5.2 **IF** Interim Disposition is required, **THEN** complete Block 15a and 15b of the NCR, **AND** print name, sign, and date Block 16a.

4.5.3 **IF** interim disposition is **NOT** required, **THEN** check "N/A" in Block 15a.

4.5.4 Evaluate the nonconforming condition, **AND** provide a final disposition to correct the identified deficiency(ies).

4.5.5 For Final Dispositions, address all items and deficiencies identified in Block 7c of the NCR. Final Dispositions are limited to Use-As-Is, Reject, Repair, Rework, and Scrap. **DO NOT** close validated NCRs until completion and verification of the Final Disposition. Limit further processing, delivery, installation, or use of a nonconforming item, pending evaluation and approval of the disposition.

4.5.6 Check the Final Disposition Type in the appropriate box in Block 19. Limit Interim or Final Dispositions to only one type in each NCR.

4.5.7 For Use-as-is dispositions, provide Technical Justification in Block 19a.

4.5.8 For Repair dispositions, provide Technical Justification in Block 19a and instructions for completion in Block 19b.

[A] Items that do not meet original design requirements that are dispositioned Use-As-Is or Repair are subject to design control measures commensurate with those applied to the original design.

4.5.9 For Reject or Scrap dispositions, provide instructions for completion in Block 19b.

[A] **IF** containers that have been characterized are identified on an NCR, and the disposition specifies that the containers are to be returned to the Host site for correction of the nonconforming condition, **THEN** the Final Disposition SHALL BE Reject, and include Instructions for Completion "Return to Host site for remediation or repackaging, or both," or similar.

[A.1] **DO NOT CLOSE** the NCR in such a case. The container is returned to the Host site with the CCP HOLD TAG attached to the container (e.g., a container has a prohibited item and requires remediation to bring it into compliance with CCP-PO-001 acceptance criteria). For such containers, **DO NOT REMOVE** CCP HOLD TAGS until nonconforming conditions have been corrected **AND** verified by CCP under the QA Program.

[A.2] There may be circumstances when a nonconforming container is returned to the Host site for remediation or repackaging under the Host site's management system. When the container is removed from the AK tracking spreadsheet for return to the Host site, CCP will follow the Host site Interface Agreement in regard to application and removal of CCP Hold tags. Close the associated NCR(s) and update the NCRM according to this procedure.

4.5.10 Any orphaned tags found SHALL BE presented to QA for action to be taken in accordance with 4.8.5 [A].

- 4.5.11 **IF** the nonconforming condition is data which requires that the container be rerun through that characterization (e.g., NDA, RTR or VE, Flammable Gas Analysis [FGA], Gas Generation Testing [GGT]),
THEN the NCR will disposition the container Reject.
- 4.5.12 **IF** the nonconforming condition is data for the container that will be corrected without rerunning the container through characterization,
THEN the NCR will disposition the container Rework.
- 4.5.13 For Rework dispositions, provide instructions for completion in Block 19b.
- [A] In the disposition of an item to be reworked or repaired, include requirements to reexamine, reinspect, retest, or conduct nondestructive examination (NDE) to verify acceptability. Reexamine repaired or reworked items using the original process and acceptance criteria, unless alternative acceptance criteria or methods have been established and approved as part of the nonconforming item disposition.
- 4.5.14 **IF** changes to the specifying document are required to agree with the as-built condition,
THEN ensure the disposition requires action to change the specifying document to agree with the as-built condition.
- 4.5.15 **IF** a document or QA record change is required by the disposition,
THEN specify the change in the disposition **AND** ensure that the document or record cites the NCR number.
- 4.5.16 Evaluate the need for Actions to Prevent Recurrence (Repair or Rework), **AND** document corrective action(s) or “N/A” in Block 19c.
- 4.5.17 For Reject Dispositions, include instructions for the disposal of the item(s), such as “scrap,” or “return to vendor,” according to applicable procedures.
- 4.5.18 Identify any additional approval requirement, if applicable, **AND** document in appropriate block(s).
- 4.5.19 Print name, sign, and date Block 20, **AND** forward the NCR to the QA Engineer or QA Designee.

QA Engineer or QA Designee

4.5.20 Review the NCR and determine the following:

- [A] The disposition (Interim or Final) adequately addresses measures to be taken to correct the identified deficiency.
- [B] The disposition (Interim or Final) has been completed in accordance with this Section.
- [C] Actions to prevent recurrence (as applicable) address adequate measures to control recurrence.
- [D] Assure any attachments have been completed as required by Section 4.11.

4.5.21 **IF** disposition is deemed appropriate,
THEN approve by completing Block 16b (Interim) or Block 21 (Final), **AND GO TO** step 4.5.23.

4.5.22 **IF** disposition is deemed to be deficient,
THEN recommend changes, resolve with the Responsible Manager, **AND** reprocess according to Section 4.5.

4.5.23 **IF** the NCR is initiated by the Data Generation Level (DGL) against a container or BDR,
THEN copy the validated and dispositioned NCR, **AND** submit it to the appropriate DGL process to be included in the BDR, **OR**, if an NCR revision, to be submitted with the corrected data as an update to the BDR.

4.5.24 **IF** the NCR is initiated by the CCP Project Office against a container or BDR during CCP-TP-001 review,
THEN copy the validated and dispositioned NCR, **OR**, if an NCR revision, forward a copy to the SPM to be included in the BDR.

4.5.25 **IF** the NCR is initiated by the CCP Project Office against a container or BDR, **AND** the disposition is required to be completed at DGL that corrects data in an existing BDR,
THEN, at DGL, include a copy of the validated and dispositioned NCR, **OR**, if an NCR revision, with the corrected data as an update to the BDR.

4.5.26 Verify the acceptable resolution of the disposition for individual containers and release them for shipment to WIPP by using the "Resolve" or "Return" dispositioning in the NCRM.

4.5.27 Forward the NCR to the NCR Coordinator.

4.6 NCRM Update

NCR Coordinator

4.6.1 At receipt of the NCR:

[A] Enter the NCR in NCRM.

[B] Retain the NCR and any attachments in a working file until NCR closure.

4.7 Disposition Completion

Responsible Manager/VPM/SPM

4.7.1 Monitor disposition completion to assure timely completion.

Responsible Manager

4.7.2 At completion of the required dispositions (Interim or Final), request the original (if necessary) from the NCR Coordinator.

4.7.3 Provide objective evidence of completion of disposition (Interim, Final, and Actions to Prevent Recurrence as applicable) by one or more of the following:

[A] Prepare attachments as required by Section 4.10.

[B] Cite traceable documentation that substantiates completion of dispositions and actions to prevent recurrence.

[C] Sign and date statement(s) of fact or include as attachment.

[D] If desired, discuss with SPM and/or Originator, reviewing the documentation that substantiates completion of dispositions prior to formal submittal to ensure adequacy.

4.7.4 Document in an attachment prepared as required by Section 4.11 that substantiates completion of dispositions (as applicable).

4.7.5 Print name, sign, and date Block 17 (Interim) or Block 22 (Final), or both, **AND** submit original NCR with attachments (as applicable) to the QA Engineer.

4.8 Completion Verification and Closeout

QA Engineer

- 4.8.1 If desired, allow nonconforming items to continue through the normal process under certain controlled circumstances while their NCR is open, but always implement and verify the approved disposition(s) prior to NCR's closing.
- 4.8.2 Review the NCR and verify the following:
- Attachments provide traceability to objective evidence substantiating completion of disposition.
 - Documentation provides adequate objective evidence of completion of disposition.
 - Attachments (if applicable) have been completed as required by Section 4.11.
 - Review the NCR and all attachments (if applicable) to assure conformance to applicable requirements.
- 4.8.3 Document the Attachment number(s) in Block 23 as needed. If no attachments, enter "N/A."
- 4.8.4 **IF** Interim disposition **AND** other requirements in accordance with 4.8.2 are satisfactorily completed, **THEN** print name, sign, and date in Block 18, **OR** continue to 4.8.5 for Final Disposition.
- 4.8.5 **IF** Final Disposition, **THEN** ensure removal of all CCP HOLD TAGS as required, either by removing them personally or in coordination with the VPM or QA Designee. Verification will be so noted by checking the box in Block 24 of Attachment 1 prior to closing the NCR.
- [A] **IF** verification identifies missing tags, **THEN** immediately notify the SPM or VPM.
- 4.8.6 Print name, sign, and date Block 25.
- 4.8.7 **IF** disposition (Interim **OR** Final) **AND** other requirements in accordance with 4.8.2 are **NOT** satisfactorily completed, **THEN** return to Responsible Manager (with detailed reasons for return) for correction and resubmittal.

4.8.8 Determine any distribution requirements as identified in applicable interface documents.

4.8.9 Forward the closed NCR and applicable attachments to the NCR Coordinator.

4.9 Closeout

NCR Coordinator

4.9.1 At receipt of the closed NCR:

[A] Update the NCR in the NCRM.

[B] Distribute as required.

[C] Submit the completed NCR with attachments, if applicable, to CCP Records in accordance with CCP-QP-008, *CCP Records Management*.

4.10 Voiding the NCR

NCR Originator or QA Engineer

4.10.1 **IF** an NCR is determined to be invalid during the review in accordance with Section 4.2 (prior to NCR validation),
THEN:

[A] On the open NCR, document the detailed justification for voiding. Write anywhere on the NCR as long as it does not obliterate existing information, OR use Attachment 3, or create an attachment according to CCP-QP-008.

Ensure that the NCR Originator and the QA Engineer print name, sign, and date.

[B] Forward the NCR to the NCR Coordinator.

[C] GO TO step 4.10.3.

Responsible Manager, SPM, QA Engineer, or NCR Originator

4.10.2 **IF**, after NCR validation when the NCR is still open, the NCR Originator, the SPM, the Responsible Manager, and the QA Engineer agree that it is appropriate to void a validated NCR, **THEN:**

- [A] On the NCR, document the technical justification for voiding, **AND** ensure that the NCR Originator, the SPM, the Responsible Manager, and the QA Engineer print name, sign, and date.
- [B] Stamp or write “void” on the first page of the NCR, initial, and date.
- [C] Forward the NCR to the NCR Coordinator **AND** copy the SPM.

NCR Coordinator

4.10.3 Verify Block 24 of Attachment 1 (NCR) has been completed.

4.10.4 Update the NCR Log that the NCR is voided, if needed.

4.10.5 Input the NCR into NCRM.

4.10.6 Submit voided NCR to CCP Records in accordance with CCP-QP-008.

4.10.7 Ensure a copy of the NCR is submitted to the appropriate DGL personnel as required by CCP-TP-001.

4.11 Attachments

NCR Originator/SPM/QA Engineer/Responsible Manager

4.11.1 When using attachments to an NCR:

- [A] Identify the NCR number and revision number on each page of the attachment.
- [B] Identify the attachment number.

[C] Paginate each page of the attachment.

EXAMPLE:

NCR-LANL-0700-12, Rev 0, Attachment 1,
Page 1 of 1

NCR-SRS-0800-12, Rev 1, Attachment 3, Page 1 of 6,
2 of 6, etc.

4.12 Revisions

NCR Originator/SPM/Responsible Manager

4.12.1 After validation of the NCR, change technical content by revising the NCR as follows:

- [A] Obtain a blank copy of the current revision of the NCR from the sftp site.
- [B] Apply next sequential revision number to all pages of the NCR and all attachments.
- [C] Document the reason for revision in Block 7c.

NCR Originator, SPM, Responsible Manager, or NCR Coordinator

- [D] Supersede the previous revision by drawing a diagonal line across the first page of the NCR, **AND** adding a statement, "Superseded by Revision # (next sequential revision #)," **AND** initial and date.
- [E] Attach the superseded revision to the new revision.
- [F] Submit new revision for review and approval in accordance with Section 4.2.

4.13 NCR Log Reconciliation - CCP Project Office and Host Site

NCR Coordinators/QA Engineer

4.13.1 At the end of the calendar year, reconcile NCR numbers issued with NCR logs maintained at Host sites (where applicable), the NCR Log, and the NCRM, as follows:

QA Engineer:

- [A] Verify that all NCR numbers issued and that appear in the Host Site Log, are accounted for in the NCRM.

- [B] Resolve all discrepancies identified with the NCR Coordinator.
- [C] Prepare and submit a report to the CCP Project Office NCR Coordinator that documents the reconciliation effort.

CCP Project Office NCR Coordinator

- 4.13.2 Reconcile NCR numbers issued to the QA Engineer at Host sites with the NCR Log, based on the report submitted by the QA Engineer.
 - 4.13.3 Note any NCR numbers **NOT** used during the year as “Number Not Used” in the Report.
 - 4.13.4 Submit the NCR Reconciliation Report to CCP Records in accordance with CCP-QP-008.
- 4.14 Work Suspension and CBFO Stop Work Orders

Personnel Working

4.14.1 During Normal Work

- [A] All CCP employees shall be responsible and authorized to suspend work if concerned with employee safety, the safety of the environment, or the quality of the work.
- [B] **IF** work **CAN NOT** be carried out as specified in a procedure **OR** continuing work would result in an undesirable situation, a condition adverse to quality or the environment, or an unacceptable safety risk, **THEN** suspend work in a safe configuration **AND**, inform the Lead Operator (LO) or VPM.

Lead Operator or Vendor Project Manager

- [C] Resolve the concerns of the employee or inform the SPM of the work suspension and the reason it is suspended.

CCP Management

- [D] Resolve the concerns prior to resuming operation **OR** initiate actions to correct the condition using existing procedures. In either event, keep the employee who raised the concern informed of actions taken in response.

- [E] Initiate the appropriate documentation in accordance with *WP 15-GM1002*, and CCP-QP-005, *CCP TRU Nonconforming Item Reporting and Control* as applicable to the situation.

SPM

- [F] **WHEN** all corrective actions have been completed and verified,
THEN direct restart of suspended work.

4.14.2 CBFO Stop Work Orders

CCP Personnel

- [A] Immediately comply with the terms of any Stop Work Order issued by the CBFO, which is authorized to issue Stop Work Orders for the protection of the environment and health and safety of CCP employees and the public.

CCP Management

- [B] Accept direction set forth in CBFO Stop Work Orders and carry out such directives in a safe and responsible manner in accordance with established procedures.
- [C] Submit Stop Work Orders and related documentation to CCP Records according to CCP-QP-008.

5.0 RECORDS

5.1 Records generated during implementation of this procedure are maintained and controlled as QA records in accordance with CCP-QP-008. The records are the following:

5.1.1 QA/Nonpermanent Records

- Attachment 1, CCP Nonconformance Report (NCR) (including related emails and supporting documentation [if applicable])
 - Attachment 3, CCP Nonconformance Report (NCR) Continuation Sheet (if applicable)
 - CBFO Notifications (if applicable)
- NCR Reconciliation Report
- CCP NCRM Database
- Written Directive to suspend work (e.g., memo, email [if applicable])

Attachment 1 – CCP Nonconformance Report (NCR)

CCP NONCONFORMANCE REPORT (NCR)

(Use NCR Continuation, Attachment 3, if necessary)

NCR No. <u>NCR-</u>		Revision	
1. Lot No., Heat No., or Serial No. (if applicable):	2. Process (e.g., NDA, NDE, VE, Other):	3. Batch Data Report #(s):	
4. Order/Work Order/Job Control Number (if applicable):	5. PO # (if applicable):	Container #(s):	
	6. Supplier (if applicable):		
DESCRIPTION OF NONCONFORMANCE			
7a. NCR Description: <input type="checkbox"/> < 100 nCi/g <input type="checkbox"/> Prohibited Item <input type="checkbox"/> E-Flag <input type="checkbox"/> Receipt Inspection <input type="checkbox"/> Transportation <input type="checkbox"/> WWIS/WDS <input type="checkbox"/> Other			
7b. Requirement(s) (Enter Implementing Procedure No., Revision, Section No., & Quoted Text):			
7c. Actual Condition:			
7d. Have the CCP HOLD TAGS associated with this NCR been applied? <input type="checkbox"/> YES <input type="checkbox"/> NO If no is checked, explain:			
8. NCR Originator:			
_____		_____	
printed name		signature	
9. Does the identified condition have the potential to impact AK? <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> INDETERMINATE If YES or INDETERMINATE, enter Trend Code L in Block 10.			
10. Trend Code:		11. Responsible Manager:	
12. Significant Condition? <input type="checkbox"/> YES <input type="checkbox"/> NO (If Yes, enter WIPP Form No.):		13. Recurring Condition? <input type="checkbox"/> YES <input type="checkbox"/> NO (If Yes, list NCRs and WIPP Forms):	
14. QA Engineer or QA Designee validation:			
_____		_____	
printed name		signature	
_____		_____	
date		date	

Attachment 1 – CCP Nonconformance Report (NCR) (Continued)

NCR No. <u>NCR-</u>	Revision	
INTERIM DISPOSITION		
15a. Interim Disposition (Check Only One): <input type="checkbox"/> N/A (See Final Disposition) <input type="checkbox"/> Hold <input type="checkbox"/> Conditionally Accept <input type="checkbox"/> Conditionally Use <input type="checkbox"/> Sort <input type="checkbox"/> Reinspect or Retest <input type="checkbox"/> Remediate		
15b. Instructions for Completion of the Interim Disposition:		
INTERIM DISPOSITION APPROVALS		
16a. Responsible Manager or Individual:		
_____	_____	_____
printed name	signature	date
16b. QA Engineer or QA Designee:		
_____	_____	_____
printed name	signature	date
Additional Approval:		
_____	_____	_____
printed name	signature	date
Additional Approval:		
_____	_____	_____
printed name	signature	date
COMPLETION OF INTERIM DISPOSITION		
17. Interim Disposition Complete – Responsible Manager or Individual:		
_____	_____	_____
printed name	signature	date
18. Interim Disposition Verified – QA Engineer:		
_____	_____	_____
printed name	signature	date

Attachment 1 – CCP Nonconformance Report (NCR) (Continued)

NCR No. <u>NCR-</u>	Revision
FINAL DISPOSITION	
19. Final Disposition (Check Only One: Use-As-Is, Repair, Reject, Rework, or Scrap): <input type="checkbox"/> Use-As-Is <input type="checkbox"/> Repair	
19a. Technical Justification – Required for <u>Use-As-Is</u> or <u>Repair</u> dispositions. [<input type="checkbox"/> N/A for Reject, Rework, or Scrap]	
<input type="checkbox"/> Reject <input type="checkbox"/> Rework <input type="checkbox"/> Scrap	
19b. Instructions for Completion – Required for <u>Reject</u> , <u>Repair</u> , <u>Rework</u> , or <u>Scrap</u> [<input type="checkbox"/> N/A for Use-As-Is]	
19c. Corrective Actions (Actions to Prevent Recurrence – For <u>Repair</u> or <u>Rework</u> , if applicable. [<input type="checkbox"/> N/A if not applicable, and for Use-As-Is, Reject, and Scrap]	
FINAL DISPOSITION APPROVALS	
20. Responsible Manager or Individual: <div style="display: flex; justify-content: space-between; width: 80%; margin-left: auto; margin-right: auto;"> _____ printed name _____ signature _____ date </div>	
21. QA Engineer or QA Designee: <div style="display: flex; justify-content: space-between; width: 80%; margin-left: auto; margin-right: auto;"> _____ printed name _____ signature _____ date </div>	
Additional Approval: <div style="display: flex; justify-content: space-between; width: 80%; margin-left: auto; margin-right: auto;"> _____ printed name _____ signature _____ date </div>	
Additional Approval: <div style="display: flex; justify-content: space-between; width: 80%; margin-left: auto; margin-right: auto;"> _____ printed name _____ signature _____ date </div>	
Additional Approval: <div style="display: flex; justify-content: space-between; width: 80%; margin-left: auto; margin-right: auto;"> _____ printed name _____ signature _____ date </div>	
CLOSURE	
22. Final Disposition Complete - Responsible Manager or Individual: <div style="display: flex; justify-content: space-between; width: 80%; margin-left: auto; margin-right: auto;"> _____ printed name _____ signature _____ date </div>	
23. Attachments:	
24a. HOLD TAG removal has been verified and reconciled for all nonconforming items on the NCR: <input type="checkbox"/> 24b. If HOLD TAG is not applicable, check: <input type="checkbox"/> and explain:	
25. Final Disposition Verified – NCR Closed QA Engineer: <div style="display: flex; justify-content: space-between; width: 80%; margin-left: auto; margin-right: auto;"> _____ printed name _____ signature _____ date </div>	

Attachment 2 – Instructions for Completing Attachment 1, Nonconformance Report (NCR)

Block	Responsible Individual(s)	Instructions
1	NCR Originator	Enter Heat no., Lot no., or Serial no. (as applicable) of material or item, measuring or test equipment, or item purchased from a supplier. If not applicable, enter "N/A."
2	NCR Originator	Enter kind of process. Choose one or a combination from the following: AK, CRMU Project, DA, Exterior Surface Radiological Survey, FGA, GGTP, HE-RTR, Lot Evaluation, MOVER, NDA, NDE, OSRP, Radiochemistry, Receipt Inspection, RH-DTC, RH-NDE, RH-RTR, RH-Sampling, RH-VE, Solids Analysis, Surface Finish, Testing, Transportation, VE, WCO, WWIS/WDS, Other. If not applicable, enter "N/A."
3	NCR Originator	Enter Batch Data Report number(s) if applicable. If not applicable, enter "N/A." Enter Container number(s) if applicable. If not applicable, enter "N/A."
4	NCR Originator	Enter Order, Work Order, or Job Control Number if applicable. If not applicable, enter "N/A."
5	NCR Originator	Enter Purchase Order number if applicable. If not applicable, enter "N/A."
6	NCR Originator	Enter Supplier if applicable. A Host site is not a supplier. If not applicable, enter "N/A."
7a	NCR Originator	Check applicable box to match NCR Description.
7b	NCR Originator	Enter the requirement that applies to the nonconforming condition. Include implementing procedure number, its revision, the applicable section or paragraph number, and quote the text.
7c	NCR Originator	Enter the actual, nonconforming condition. Provide enough detail so that a disposition can be developed to correct it.
7d	NCR Originator or QA or QA Designee	<p>Check "Yes" if Hold Tags have been applied or "No" if another method has been selected to control the item(s). If Hold Tags were not applied because of the Remote-Handled ALARA principle, enter the following:</p> <p>"Hold Tags will not be applied to items identified on this NCR because of ALARA consideration. Container management will apply through administrative control. In addition, these containers have been identified on the CCP sftp site. Container information from this NCR has been included in the list, which is to alert Mobile Loading Unit personnel as a second method of control of non-tagged containers."</p> <p>If NCR was originated at the Project Office, the site will be advised to apply Hold Tags and confirm when done. At that time, QA or QA Designee may check Block 7d "Yes." The NCR does not require revision as a result.</p>

Attachment 2 – Instructions for Completing Attachment 1, Nonconformance Report (NCR) (Continued)

Block	Responsible Individual(s)	Instructions
8	NCR Originator	Print name, sign, and date.
9	QA or QA Designee	Determine whether the Block 7c Actual Condition impacts or may impact AK. If so, check Block 9 "Yes." If it cannot be determined whether AK is impacted, check "Indeterminate." If not, check "No." If "Yes" or "Indeterminate" was checked, enter Trend Code 'L' in Block 10.
10	QA or QA Designee	If no Trend Code is entered in Block 10, determine the applicable code and enter it.
11	QA or QA Designee	Determine the Responsible Manager and enter (see Note before 4.2.12).
12	QA or QA Designee	After discussion with Assurance Manager, determine whether a Significant Condition Adverse to Quality exists (see 4.2.6) and check box accordingly. If "Yes" is checked, enter applicable WIPP Form number.
13	QA or QA Designee	Determine whether a recurring condition exists (see 4.2.9) and check box accordingly. If "Yes" is checked, enter applicable NCR or WIPP Form numbers.
14	QA or QA Designee	If NCR is determined valid, print name, sign, and date.
15a	Responsible Manager	If Interim Disposition is needed, check one box: "Hold," "Conditionally Accept," "Conditionally Use," "Sort," "Reinspect or Retest," or "Remediate." Proceed to Block 15b. If Interim Disposition is not needed, check "N/A" and proceed to Block 19.
15b	Responsible Manager	Enter instructions for completion of the Interim Disposition.
16a	Responsible Manager or Individual	Print name, sign, and date.
16b	QA Engineer or QA Designee	Print name, sign, and date.
17	Responsible Manager or Individual	When Interim Disposition is to be closed, print name, sign, and date.
18	QA Engineer or QA Designee	If verified adequate, print name, sign, and date.
19 or 19b	Responsible Manager or Individual	Check only one box: "Use-as-is," "Repair," "Reject," "Rework," or "Scrap."
19a	Responsible Manager or Individual	Enter Technical Justification if Disposition is "Use-as-is" or "Repair." If not, enter "N/A," and proceed to 19b.

Attachment 2 – Instructions for Completing Attachment 1, Nonconformance Report (NCR) (Continued)

Block	Responsible Individual(s)	Instructions
19b	Responsible Manager or Individual	Enter Instructions for Completion if Disposition is "Reject," "Repair," "Rework," or "Scrap."
19c	Responsible Manager or Individual	Enter Action(s) to prevent recurrence, if applicable. Enter "N/A" if not applicable, or for "Use-as-is," "Reject," and "Scrap" dispositions.
20	Responsible Manager or Individual	Print name, sign, and date.
21	QA or QA Designee	If Final Disposition is acceptable, print name, sign, and date.
22	Responsible Manager or Individual	When Final Disposition is completed, print name, sign, and date.
23	QA or QA Designee	If there are any Attachments, enter number and title or description of each.
24a	QA or QA Designee	If Hold Tag removal was verified for all nonconforming items on the NCR, check box.
24b	QA or QA Designee	If Hold Tags are not applicable, check box and enter explanation.
25	QA Engineer	When Final Disposition is verified, print name, sign, and date for closure of NCR.

Attachment 3 – CCP Nonconformance Report (NCR) Continuation Sheet

NCR No. <u>NCR-</u>	Revision	Attachment #	Page	of
Continuation from Section Number:				

Attachment 4 – Additional CBFO Notification Details

This attachment details reporting notification requirements for CCP-generated Nonconformance Reports (NCRs) which meet the condition identified in CCP-PO-001, Section C3-13, and 4.4.1[D.5] of this procedure.

WIPP e-mail Address: wipp.notify@wipp.ws

Electronic notification is strongly encouraged. If electronic notification is used, the following criteria are required:

On the subject line, preceding the subject, [ncr]. The term “ncr” in brackets [] allows the automatic transfer into the proper folder of the receiving system.

Include the NCR number, description of the deficiency, and the date identified.

CCP must email an NCR containing CCP’s procedurally required information thirty (30) days after the nonconformance was identified.

CCP may choose to transmit the NCR within the required seven (7) days, and satisfy both notification requirements, provided the following information is submitted:

- Site NCR #
- Responsible Organization
- Date initiated
- Individual who identified the NCR
- Deficiency
- Requirement violated
- Actions
- Date closed, if applicable

General Notification

If CCP does not have the capability of transmitting documents by e-mail, or elects not to, hard-copy transmittal may be used instead. Correspondence must be sent to the following address:

[Assigned CBFO Contact]
Carlsbad Field Office
U.S. Department of Energy
P.O. Box 3090
Carlsbad, NM 88221-3090

Attachment 5 – Trend Codes

Trend Codes	Descriptions	Definitions and Examples
A*	Personnel Error and Failure to Follow Procedure	Personnel wrongly entered data or transposed figures or letters; inattention to detail; lack of understanding; use of superseded or incorrect version of specifying document; used procedure, but before required approval(s); required review missed problem(s); failed to follow procedure(s); deliberate violation.
C	Engineering Deficiency	Inadequate or erroneous engineering design, design input, or design output.
D	Procedure Less Than Adequate	Procedure erred or was vague in specifying requirements; failure to revise procedure when work processes change; no procedure to control QA work.
E	Software Deficiency	Software error resulted in deficient data; unqualified software used to obtain QA data; failure to initiate software qualification process; failure to verify software following software or operating system upgrade.
F	Vendor Deficiency	Deficiencies related to a vendor (i.e., procured item including hardware does not meet a requirement prescribed in the purchase order); wrong or less than adequate vendor documentation.
H	Material or Equipment Control Deficiency	Failure of material, equipment, or items because of damage, failure of a component, inadequate maintenance, etc.

Attachment 5 – Trend Codes (Continued)

Trend Codes	Descriptions	Definitions and Examples
I	Calibration Deficiency	Calibration was inadequate, resulting in nonconforming or indeterminate data; use of out-of-calibration M&TE.
J	Inadequate Documentation	Record is nonconforming: does not include required data; required data are incorrect; record(s) improperly stored.
K	WAP/WAC Deficiency	Noncompliance with a WAP or WAC requirement (Exempt from trending) .
L	Acceptable Knowledge Deficiency	Possible changes to the AK of a waste stream (e.g., assignment of waste container to wrong waste stream; identification (ID) of unanticipated waste material parameters in a waste container) (Exempt from trending) .
M	Inadequate Communication	Personnel were given ambiguous or incorrect information or instructions to do their work; inadequate or lack of planning.
O	Ineffective Control of Corrective Action	Actions intended to correct deficiencies or preclude recurrence proved ineffective; identification of nonconforming item(s) less than adequate.
P	Inadequate Training	Condition Adverse to Quality resulted from lack of or inadequate indoctrination, training, or qualification; work done before indoctrination, training, or qualification or after qualification expired.
Q	Deficiency Caused by Others	The deficiency was caused by non NWP personnel working to non NWP QA program or none at all.
R	Control of Electronic Data Less Than Adequate	Inadequate security access control; inadequate protection of data; failure to backup data; inadequate traceability of data; failure to verify transferred data.

* Former Trend Code B was combined with A.

Attachment 6 – NCR Hold Tags Guidance

Applicability

This Attachment applies to all CCP personnel applying or removing CCP Nonconformance Report (NCR) Hold Tags.

Vendor Project Manager (VPM) Administrative Hold Tags are addressed in Container Management procedures CCP-TP-035, CCP-TP-068, and CCP-TP-120.

When PLACING an NCR Hold Tag on waste container:

- Use only CCP-provided NCR Hold Tag
- When applying the NCR Hold Tag, enter the information using a Sharpie permanent marker or equivalent
- The NCR Hold Tag when possible should be applied so that the drum number, BDR number, etc. face out
- Place the NCR Hold Tag on the waste container locking ring bolt or lifting handle, using the cable tie in accordance with the following:
 - Use a separate cable tie for each Hold Tag placed on a waste container
 - Ensure the the cable tie locks and does not protrude past the bottom of the device
 - If the wire protrudes past the bottom of the device, wrap the exposed wire with tape

When REMOVING an NCR Hold Tag from a waste container:

- Wrap the area where the cable is to be cut with tape prior to cutting to prevent the cable wires from splaying. Cut the cable tie holding the NCR Hold Tag to the container using CCP-approved cable cutters.
- DO NOT cut or pull the tag off the cable tie
- Return the NCR Hold Tag to the VPM or SPM directing removal of the tag. The VPM or SPM will then turn the tags over to the QA Engineer for tracking with the corresponding NCR.
- DO NOT remove Host site tags or tamper-indicating devices (TID). Immediately report accidental removal of these to the VPM.

Attachment 6 – NCR Hold Tags Guidance (Continued)

When a cable or wire is found on a waste container without an NCR Hold Tag attached, or when an NCR Hold Tag is damaged or faded:

- Treat the container as though it has an NCR Hold Tag applied.
- If the NCR Hold Tag is found damaged or faded, document the container number and any information from the remaining Tag and notify the VPM or SPM.
- If a loose tag is found on a waste container or on the ground, turn the tag over to the VPM or SPM.
- Replace loose, damaged, faded, or missing NCR Hold Tags as directed by the VPM or SPM.

CCP-QP-008

Revision 22

CCP Records Management

EFFECTIVE DATE: 03/24/2014

Mike Ramirez

PRINTED NAME

APPROVED FOR USE

RECORD OF REVISION

Revision Number	Date Approved	Description of Revision
6	03/11/2002	Additions for use of e-QA system
7	06/07/2002	Incorporation of instructions for pagination and removal of text in Attachments.
8	09/04/2002	Added the definition of magnetic tape and incorporated text to clarify the requirements of computer generated electronic records (clarified steps 2.3.7 and 4.8.3). Updated Attachment 2 to reflect new fax machine number. Added new steps regarding duties for the CCP Site Project Manager and the release of records (steps 3.1 and 4.7).
9	08/27/2003	Updated to reflect issuance of Revision 5 of the QAPD. Made other editorial changes. Separated electronically fillable forms and updated references in the procedure.
10	10/15/2004	Clarified CCP Personnel and Facility Records Custodian responsibilities. Editorial changes throughout.
11	08/22/2005	Reorganized sections for improved flow and added clarifications. Deleted Attachments 3 through 6.
12	11/16/2006	Revised to implement the Waste Isolation Pilot Plant Hazardous Waste Facility Permit requirements resulting from the Section 311/Remote-Handled (RH) Permit Modification Request (PMR).
13	04/24/2007	Revised to change title in responsibilities and body of procedure and to add statement (Note) from QAPD and remove verbiage about in-process records.
14	09/19/2007	Revised to address finding from U.S. Department of Energy, Carlsbad Field Office, Corrective Action Report 07-016, Audit A-07-24. Also revised to provide some clarifications within the procedure, added a step to address superseding and voiding of documents (i.e., Batch Data Reports, Nonconformance Reports), and added a note at the beginning of section 4.9 to address computer modeling results methods.
15	10/28/2009	Revised to make personnel title changes and name changes to organizations. Added section 4.7.1[G] for lost records as well as a section for receipt and handling of Official Use Only (OUO) and Unclassified Controlled Nuclear (UCN) documents.
16	07/06/2010	Revised to clarify and address the submittal of historical source documents.

RECORD OF REVISION (Continued)

Revision Number	Date Approved	Description of Revision
17	11/02/2010	Revised to change the submittal process for Acceptable Knowledge (AK) documentation and section on historical source documents.
18	03/30/2011	Revised to support corrective action report (CAR)-LANL-0004-10.
19	08/02/2011	Revised to change the number of the form in the definition of retention period. Change to Section 4.8 for clarification.
20	08/10/2012	Revised to clarify editorial changes, transmitting of records, and destruction of QA records.
21	02/28/2013	Revised to incorporate Nuclear Waste Partnership (NWP) transition changes.
22	03/24/2014	Revised to include steps for the Record Index Module, addresses editorial guidelines for records, and to update records section.

TABLE OF CONTENTS

1.0 PURPOSE 5
 1.1 Scope..... 5

2.0 REQUIREMENTS..... 6
 2.1 References 6
 2.2 Training Requirements..... 6
 2.3 Definitions 6

3.0 RESPONSIBILITIES..... 12
 3.1 CCP Manager or Designee 12
 3.2 Cognizant Manager 12
 3.3 Lead Records Custodian 12
 3.4 Records Custodian 13
 3.5 Facility Records Custodian 13
 3.6 WIPP Records Management Services (WRMS) 14
 3.7 Personnel..... 14

4.0 PROCEDURE..... 15
 4.1 Generation of Records..... 15
 4.2 Legibility 15
 4.3 Accuracy 15
 4.4 Completeness..... 16
 4.5 Storage, Maintenance, Control, and Protection of QA Records..... 16
 4.6 Records Separation and Availability 18
 4.7 Corrections, Additions, Revisions, Supplements, and Lost Records 18
 4.8 QA Record Authentication/Validation..... 21
 4.9 Protection, and Preservation of Computer Generated Electronic Records ... 22
 4.10 Transmitting Records..... 24
 4.11 Unclassified Controlled Nuclear Information (UCNI) and Official Use Only (OUO) Documentation 25
 4.12 Internal Use Only (IUO) and No Foreign National (NOFORN)..... 27
 4.13 Receiving QA Records..... 28
 4.14 Retrieval of Original Records from CCP Records at the Project Office..... 29
 4.15 Destruction of QA and Non-QA Records 29

5.0 RECORDS..... 32

LIST OF ATTACHMENTS

Attachment 1 – Written Request for Records Destruction (Example)..... 33
 Attachment 2 – CCP Records Transmittal/Receiving Form..... 34

1.0 PURPOSE

This document outlines the Central Characterization Program (CCP) Records Management Program. The records program involves CCP Records and interaction with the Waste Isolation Pilot Plant (WIPP) and Records Management Services (WRMS) as outlined in this procedure.

1.1 Scope

This procedure applies to the creation, maintenance, use, and disposition of records generated by the CCP.

2.0 REQUIREMENTS

2.1 References

Baseline Documents

- DOE/CBFO-94-1012, *U.S. Department of Energy Carlsbad Field Office Quality Assurance Program Document (QAPD)*

Referenced Documents

- *National Archives and Records Administration (NARA) Approved Record Schedules*
- CCP-QP-002, *CCP Training and Qualification Plan*
- CCP-QP-028, *CCP Records Filing, Inventorying, Scheduling, and Dispositioning*
- DOE M 471.1-1, *Identification and Protection of Unclassified Controlled Nuclear Information Manual.*
- DOE M 471.3-1, *Manual for Identifying and Protecting Official Use Only Information.*

2.2 Training Requirements

- 2.2.1 Personnel performing this procedure will be trained and qualified in accordance with CCP-QP-002, *CCP Training and Qualification Plan*, prior to performing this procedure.

2.3 Definitions

- 2.3.1 **Authentication** - Synonymous with validation.
- 2.3.2 **Computer System** - A configuration, or working combination, of hardware, software, and data communication devices.
- 2.3.3 **Destruction** - The physical destruction of records by shredding, incinerating, or other permanent means.
- 2.3.4 **Disposition** - The action taken regarding records no longer needed for current government business. Actions may include transfer to the Carlsbad Field Office (CBFO) Records Holding Facility or Federal Records Center, transfer from one federal agency to another, transfer of permanent records to the National Archives and

Records Administration (NARA), or destruction of nonpermanent records.

- 2.3.5 **Electronic Record** - A record in a form that is readable only by a computer. Electronic records are most frequently recorded on media such as disk, diskette, tape, and tape cartridges.
- 2.3.6 **External Records** - Records generated by the waste generating sites (e.g., procurement records, procedures, radiological surveys, facility operating logs, container packaging records, historical source documents, etc.). These records are not subject to the requirements of this procedure concerning legibility, pagination, accuracy, completeness, or revision.
- 2.3.7 **Inactive Record** - A record no longer required to conduct government business and therefore dispositioned in accordance with approved records schedules and stored for authorized retention periods.
- 2.3.8 **Index** - A listing of records and cross-reference information. At a minimum, an index will indicate record location within the record filing and storage system.
- 2.3.9 **Internal Use Only (IUO)** - A document that has been identified as Internal Use Only (IUO) and is considered proprietary, which is not to be disseminated beyond the organization.
- 2.3.10 **Legible** - For the purpose of this document, legible means that the characters, letters, and numbers making up data or information contained in a record can be read without difficulty or magnification.
- 2.3.11 **Lifetime Quality Assurance (QA) Records** - Records that are required to be retained and preserved in an acceptable condition for the operating life of the repository (i.e., until termination of the repository permit). Prior to destruction of any lifetime record, it shall be evaluated for upgrade to a post-closure record.
- 2.3.12 **Magnetic Tape** - A tape with a magnetizable surface on which data can be stored and retrieved. A tape or ribbon of any material impregnated or coated with magnetic or other material on which information may be placed in the form of magnetically polarized spots.
- 2.3.13 **Medium** - Refers to the physical form of recorded information such as paper, film, disk, magnetic tape, or other materials on which information can be recorded.

- 2.3.14 **Microfilming** - A photographic process used to record images of records on a fine-grain, high-resolution film in sizes greatly reduced from the original. Formats in general use are rolls of 16 millimeter (mm) images, pages of 16 mm images called microfiche, and 35 mm images mounted in aperture cards. Microform is a generic term for all microfilm formats.
- 2.3.15 **Migrate** - In electronic records, the process of moving from one computer system to another.
- 2.3.16 **National Archives and Records Administration (NARA)** - An independent government agency responsible for establishing policies and procedures for managing the records of the federal government. NARA exercises final authority for approving the disposition of government records.
- 2.3.17 **Nonpermanent Records** - Records having value for a specific, limited time and authorized by NARA (via approved disposition schedules) to be destroyed after that time. Nonpermanent records are sometimes referred to as temporary records.
- 2.3.18 **No Foreign National (NOFORN)** - No Foreign National (NOFORN) is a marking that identifies a document is not to be given to a person who is a foreign national – not a United States citizen.
- 2.3.19 **Nonrecord Material** - Those classes of documentary or other material that fail to meet the general definition of a record or fall under one of the following categories: (a) library or museum material made or acquired for reference or exhibition purposes; (b) extra copies of documents preserved only for convenience of reference on which no action is recorded or taken; (c) stocks of publications or other processed documents that require no action and are not part of a case on which action is taken; (d) routing slips and transmittal sheets adding no information to that contained in the transmitted material (i.e., concurrences or direction on how to proceed or implement); and (e) papers of a private or nonofficial character that pertain to an individual's private affairs.
- 2.3.20 **Official Use Only (OUO) Information** - Certain unclassified information that may be exempt from public release under the Freedom of Information Act and has the potential to damage governmental, commercial, or private interests if disseminated to persons who do not need to know the information to perform their jobs or other U.S. Department of Energy (DOE) authorized activities.

2.3.21 **Personal Papers** - Materials of a private nature maintained by personnel at their work place that **DO NOT** relate to, or have an effect on, the conduct of business or activities related to the CCP. Personal papers maintained in desks and file drawers in the work place must at all times be segregated and stored separately from records.

2.3.22 **Post-closure Records**

- Records that assist in preventing action that could impair the long-term isolation of the waste.
- Records preserving information that would prevent inadvertent human intrusion, such as the nature and hazard of the waste and locations of the geologic repository operation area, the underground facility, bore holes, shafts, and boundaries of the controlled area.
- Records providing information relevant to post-closure monitoring and assessment of performance of the repository system.
- Records preserving, for future generations, information regarding the geologic setting relevant to mitigation of releases of radioactive materials.
- Records which would be of significant value after decommissioning and closure of the repository.

2.3.23 **Privacy Record** - Any item, collection, or grouping of information about an individual that contains his or her name or other personal identifier.

2.3.24 **Project Participant** - Any DOE site, generator site, or contractor organization that participates in a CBFO program. Subcontractor's records are the responsibility of the participant.

2.3.25 **Project Records** - Records created or received in support of the CCP.

2.3.26 **QA Record** - An authenticated record that provides objective evidence of the quality of items or activities.

2.3.27 **Record Medium** - Refers to the physical form of recorded information such as paper, film, disk, magnetic tape, or other materials on which information can be recorded.

- 2.3.28 **Records** - Those classes of documentary materials which may be disposed of only after the archival authority is obtained. The statutory definition of records (44 United States Code §3301, Definition of Records), "...includes all books, papers, maps, photographs, machine-readable materials or other documentary materials, regardless of physical form or characteristics, made or received by an agency of the United States government under federal law or in connection with the transaction of public business and preserved or appropriate for preservation by that agency or its legitimate successor as evidence of the organization, functions, policies, decisions, procedures, operations or other activities of the government or because of the informational value of the data in them." This definition applies to all departmental records including those created, received, and maintained by contractors pursuant to their contracts. Virtually all recorded information in the custody of the government (including information held by contractors which is considered by contract to be government information) regardless of its' media (hard copy, machine-readable, microform), is considered "government records." For the CCP, information meeting the above criteria is considered to be a record, unless it can be clearly identified as a nonrecord.
- 2.3.29 **Records Custodian** - An individual identified within an organization who is assigned the responsibility of, and trained for, assisting record originators regarding records management issues.
- 2.3.30 **WIPP Records Archive (WRA)** - A facility that meets the regulatory requirements for the storage of noncurrent records pending their destruction or transfer to a Federal Records Center or the NARA. The WIPP Records Archive (WRA) is located in Carlsbad, New Mexico.
- 2.3.31 **Records Inventory and Disposition Schedule (RIDS)** - The DOE form used to indicate the appropriate disposition of records. The purpose and content of the form may be placed in electronic media as long as all the requirements of the form are met.
- 2.3.32 **Record Series** - File units or documents arranged according to a filing system or kept together because they relate to a particular subject or function; result from the same activity; document a specific kind of transaction; take a particular physical form; or have some other relationship arising out of their creation, receipt, or use, such as restrictions on access and use. A record series may also include related elements physically separated from it such as finding indexes or large documents (also sometimes called a file series). These records are generally handled as a unit for disposition purposes.

- 2.3.33 **Software Generated** - A form that is generated by controlled software that performs approved calculations.
- 2.3.34 **Unclassified Controlled Nuclear Information (UCNI)** - Certain unclassified but sensitive Government information concerning nuclear material, weapons, and components whose dissemination is controlled under section 148 of the Atomic Energy Act.
- 2.3.35 **Record Systems** - A common, integrated set of manual and/or automated activities for creating and identifying; collecting and controlling; processing and organizing; distributing; microfilming; storing and preserving; retrieving; and disposing of records applicable to preparation for storage, as well as the storage of machine readable records such as magnetic tapes, floppy disks, etc.
- 2.3.36 **Retention Period** - The period of time approved by NARA for records to be retained, whether in the originating office, Records Storage Facility or a Federal Records Center. The retention period is indicated on EA15RM300Z-2-0, *Records Inventory and Disposition Schedules (RIDS)*.
- 2.3.37 **Uniform File Code (UFC)** - A standard filing system for correspondence records required by the DOE.
- 2.3.38 **Unscheduled Records** - Records for which no disposition authority has been identified on an approved disposition schedule.
- 2.3.39 **Validation/Authentication** - An activity that certifies the content of a document as being authentic and complete. This certification is documented by signing (or initialing) and dating the document unless otherwise authenticated. Validation/authentication may be made by the author, assigned reviewers, or individual(s) specifically assigned to review and validate documents.

3.0 RESPONSIBILITIES

3.1 CCP Manager or Designee

3.1.1 CCP Manager has the overall responsibility and authority for the content of records generated.

3.1.2 Verifies that the organization has a current approved RIDS.

3.1.3 Verifies that records are retained in accordance with retention requirements and not inadvertently or prematurely destroyed.

3.1.4 Verifies the timely disposition of records through in-house destruction.

3.1.5 Verifies that personnel are aware of the requirements to retain records according to approved retention requirements.

3.1.6 Provides adequate records management resources in the form of staff, equipment, and dedicated time to verify good record keeping practices.

3.1.7 Obtains written concurrence to destroy records exceeding their retention periods.

3.2 Cognizant Manager

3.2.1 Identifies those documents that become records.

3.2.2 Determines if the work activities are quality-affecting.

3.2.3 Identifies records in the implementing procedures.

3.3 Lead Records Custodian

3.3.1 Acts as the liaison between the CCP and WRMS for records management.

3.3.2 Carries out the records management duties in accordance with approved implementing procedures.

3.3.3 Determines which nonpermanent records series are eligible for destruction.

3.3.4 Informs the CCP Manager or designee of the records that have expired retention periods.

- 3.3.5 After receiving approved written concurrence, dispositions the Quality Assurance (QA) and/or non-QA records.
- 3.3.6 Prepares and revises the RIDS in accordance with CCP-QP-028, *CCP Records Filing, Inventorying, Scheduling, and Dispositioning*, and verifies the RIDS remain current.
- 3.3.7 Identifies records that are eligible for in-house destruction.
- 3.3.8 Assists personnel with record retrieval from CCP Records as required.
- 3.3.9 Assists in obtaining approved disposition authorities for unscheduled records from NARA.
- 3.4 Records Custodian
 - 3.4.1 Carries out the records management duties in accordance with approved implementing procedures.
 - 3.4.2 Transmits completed QA records to the Host (generator/storage) site records centers or WIPP Records Archives (if applicable).
 - 3.4.3 Assists personnel with record retrieval from CCP Records, as required.
 - 3.4.4 Verifies that Records are complete. This includes verifying that there are no missing signatures, the page count is correct, and that the Batch Data Reports (BDRs) contents match their Table of Contents.
 - 3.4.5 Ensure that the Attachment 2, Records Transmittal/Receiving Form, is in agreement with the transmitted record and that it is legible.
 - 3.4.6 Enter all QA records into the Records Index Module.
- 3.5 Facility Records Custodian
 - 3.5.1 Coordinates the compilation and the transfer of records generated at the Host (generator/storage) sites.
 - 3.5.2 Verifies that records are complete. This includes verifying that there are no missing signatures, the page count is correct, and that the BDRs contents match their Table of Contents.

- 3.5.3 Ensure that the Attachment 2 is in agreement with the transmitted record and that it is legible.
- 3.5.4 Enter all QA records into the Records Index Module.
- 3.5.5 Manages the transfer of completed and in-process records to CCP Records.
- 3.5.6 Assists personnel with record retrieval from CCP Records where applicable.
- 3.5.7 Carries out the records management duties in accordance with approved implementing procedures.
- 3.6 WIPP Records Management Services (WRMS)
 - 3.6.1 Assists in the development and management of the records management system.
 - 3.6.2 Assists with the review and approval of the CCP RIDs.
 - 3.6.3 Assists in obtaining approved disposition authorities for unscheduled records to NARA.
- 3.7 Personnel
 - 3.7.1 Generates the necessary records that document the activities assigned to them. Each individual who creates records must verify the record(s) are legible, accurate, and complete, appropriate to the work accomplished.
 - 3.7.2 Are aware of, and provide reasonable protection during the generation and processing of records intended to become QA Records.
 - 3.7.3 Ensures that records are legible, accurate and complete, appropriate to the work accomplished, when generating, reviewing and validating records.
 - 3.7.4 Ensures that records are not inadvertently or prematurely destroyed.
 - 3.7.5 Coordinates records issues with the respective Records Custodian(s)/Facility Records Custodian(s).

4.0 PROCEDURE

4.1 Generation of Records

Cognizant Managers

4.1.1 Prior to conducting a work activity:

- [A] Identify those documents that become records.
- [B] Determine if the work activities are quality-affecting.
- [C] Identify records in the implementing procedures.

NOTE

Records may be originals **OR** reproducible copies; however, original documents are preferred.

4.2 Legibility

Personnel

NOTE

Reproducible ink should be used whenever possible to verify maximum contrast on printed records. Records created in black ink typically produce better quality copies than do records printed in other color inks.

NOTE

Highlighter marking pens **SHALL NOT** be used on records. Bolding or underlining text are preferred alternatives to highlighting.

- 4.2.1 Verify that the records generated are legible and reproducible. If there is doubt, copy the record and then recopy the copied record (copy-a-copy test) to check the copied copy for legibility.

4.3 Accuracy

- 4.3.1 Verify that records are accurate to the work accomplished.

4.4 Completeness

4.4.1 Verify that records are complete per the following:

- [A] Blank spaces are filled in where information is required to be entered making the document complete.
- [B] Not Applicable (N/A) is entered in spaces where information is not applicable or as otherwise indicated.
- [C] Blank spaces are acceptable when a record is a software generated page/form which performs calculations.
- [D] The document's intent is clear, even with some blanks not filled in. If so, the record is acceptable as is. A blank space in a record does not, in itself, make the record incomplete. For example:

Is the indicator light illuminated? ___✓___ YES ___ ___ NO

This is an acceptable method of recording information, even when the NO space is blank.

NOTE

Individuals handling documents intended to become QA Records shall provide reasonable protection for the records from damage or loss until the records are submitted to the records system (this includes documents generated during field operations).

4.5 Storage, Maintenance, Control, and Protection of QA Records

4.5.1 Store, maintain, and protect completed QA records as follows:

- [A] In an Underwriter Laboratories-listed one-hour fire rated (or equivalent) container, or a container certified by a person competent in the technical field of fire protection,

OR

- [B] Retain a copy in a location sufficiently remote from the original to preclude destruction as a result of a single event such as fire or natural disaster,

ALSO

- [C] Provide adequate protection of the QA records within the storage location to minimize the risk of damage or loss from

humidity, natural disasters, adverse weather conditions, mold or infestations of insects or rodents.

- [D] DO **NOT** store QA records where they may be exposed to water or heat sources, **OR** where food is kept.

4.5.2 Access

- [A] Prevent access to QA records by unauthorized personnel as follows:

NOTE

Authorization must be documented either by signature and date on posted list, **OR** by letter on file. Authorization will be done by the CCP Manager or designee. The authorization list must be kept current.

- [A.1] Generate, post, and maintain a list designating the personnel who are authorized and permitted access to the QA records.

NOTE

Provisions for installation of locking mechanisms will be made for storage areas requiring controlled access. Authorized personnel allowed access to the storage areas will be given the lock code **OR** controlled location of the keys.

- [A.2] Protect locking mechanisms for storage cabinets/areas that require controlled access.
- [A.3] Store all records not currently being used in appropriate storage equipment (e.g., file cabinets, shelving, desks).
- [A.4] Lock file cabinets and offices as appropriate when leaving controlled access areas.

4.6 Records Separation and Availability

NOTE

Records will be separated from non-records and personal papers.

4.6.1 Provide a means to retrieve records by indexing with one of the following methods:

[A] Numerically (such as audit case files):

OR

[B] By subject, with guides dividing different subjects.

4.7 Corrections, Additions, Revisions, Supplements, and Lost Records

NOTE

When in-process record/records intended to become QA Records are being generated they shall be maintained (do not remove or destroy) and if corrections are required, then perform this by proper correction, superseding, or voiding as directed in the following sections of this procedure.

4.7.1 Make necessary changes, additions, revisions and supplements in accordance with the following guidelines:

[A] Corrections

[A.1] Correct errors by drawing a single line through the incorrect information (leaving the original text readable), entering the correct information, **AND** initialing and dating each correction made.

[A.2] **DO NOT** use correction fluid (white-out) or correction tape on records.

NOTE

Editorial changes may be made to records without the same level of review and approval as the original record. Editorial changes include **ONLY** the following:

- Clarification statements that do not affect the purpose of the record;
 - Correcting grammar or spelling (the meaning has not changed);
 - Renumbering sections, attachments or pagination;
 - Date(s) that do **NOT** impact final disposition;
 - Transcription errors;
 - Sections that require N/A, but were left blank.
-

[A.3] Provide corrected or changed records (except for editorial changes) that have been validated back to the originating organization for review and revalidation.

NOTE

Original records may not be available for remote personnel to make necessary changes; therefore a printed copy of the scanned image from CCP Records may be used to make the changes. Changes will be transmitted in accordance with step 4.10.1.

[A.4] **IF** the original document is unavailable to the individual making a change to a record, **THEN** use a printed copy of the scanned image from CCP Records and make the change. This will then become the original.

[B] Additional Notations

[B.1] **IF** any additional information needs to be added to a record after validation, **THEN** enter the notation, **AND** initial and date each notation(s) made.

[C] Revisions, Regeneration, and Supplements

[C.1] **IF** a record needs to be revised due to illegibility or damage, **THEN** transcribe **OR** enhance the illegible, or damaged, portion of the record **AND** initial and date each part enhanced or transcribed.

- [C.2] **IF** a record must be regenerated due to damage, **THEN** regenerate the record and place a notation at the bottom of the regenerated page, "This record has been regenerated because of damage," sign, and date. Place the regenerated record in front or on top of the original damaged record.
- [C.3] **IF** a record has already been sent to CCP Records, **AND** needs a supplement or revision, **THEN** contact CCP Records.
-

NOTE

The following is a standard way to add new pages to a document, to supersede a page, and to add a corrected page.

[D] Adding Pages to Documents

- [D.1] When adding pages to a document, place new pages behind the page within the document that they will follow.

Example: The new pages are to be added right after page 35 within the document. Place the new pages behind page 35, **AND** number the new pages 35A, 35B, 35C.

- [D.2] **IF** the pages are added to the end of the document, **THEN** number them in sequential order.

Example: The last page of the document is page 40. Place the new pages after page 40, **AND** number the new pages as 41, 42, 43.

[E] Superseding Pages

- [E.1] When superseding a page with a new, corrected page, draw a single, diagonal line through the entire page to be superseded **AND** initial and date.

- [E.2] Place the new, corrected page to the front of the superseded page. Using the page number on the now superseded page, number the new, corrected page with the same number, then renumber the superseded page with the same number and an additional character (i.e., A, B, C).

Example: Superseded page was numbered 35. The new, corrected page will now be numbered 35, **AND** the superseded page will change to 35A.

[F] Superseding or Voiding of Whole Documents

[F.1] When superseding or voiding a whole document (not just pages within a document [i.e., BDRs, Nonconformance Reports]) stamp or write “superseded” or “void” on the first page of the document **AND** initial and date.

[G] Lost Records

[G.1] **IF** replacement or restoration of the record is **NOT** practical, **THEN** action should be taken to ensure the quality of the items or activities affecting quality, by using re-examination, investigation, or by other means.

4.8 QA Record Authentication/Validation

NOTE

Records become QA records when they are completed and authenticated/validated. Authentication/validation may be by the author, assigned reviewer, individual specifically assigned to review and validate documents, or otherwise authenticated/validated.

NOTE

Individuals who review and authenticate/validate records are responsible for the completeness and accuracy of those records.

[A] Authenticate/validate QA records through one of the following methods:

[A.1] Initial **OR** sign and date hard copy records, unless otherwise authenticated/validated.

[A.2] **IF** the nature of the record precludes signing, **THEN** validate the QA record using any reasonable form which clearly indicates that an authorized individual believes the record to be complete and accurate.

4.9 Protection, and Preservation of Computer Generated Electronic Records

NOTE

There are two types of electronic records:

- Electronic records that can be printed in a hard copy format.
- Electronic records that cannot be printed in a hard copy format.

Regardless of type, all electronic records must be managed in accordance with the guidelines contained in this section. Properly performing these steps will ensure that electronic records are in compliance with the applicable requirements.

NOTE

Computer modeling results (e.g., Monte Carlo N Particle [MCNP], Origen2.2) that perform statistical and random computer runs of radionuclide distributions will not be maintained but summarized in the hardcopy calculation packages. The calculation packages document these computer runs and shall define the range of possible values, the methodology for randomly selecting from this range, and a representative example of the input values and output result.

NOTE

Electronic media for historical source documents transmitting Adobe portable document format (PDF) files or electronic databases may be compact discs (CDs) or digital video discs (DVDs).

4.9.1 Protection

- [A] To minimize the risk of unauthorized additions, deletions, or alterations to electronic files, use power-on, file passwords, or control lists to control any unauthorized access.
 - [A.1] Place electronic records, when complete to read/write protection.
- [B] Provide access of electronic records to authorized staff.
- [C] Provide access in the work area of electronic file index printouts, logs, disk labeling, **OR** other means to facilitate retrieval of active records by authorized users. Indicate the method used (including the directory path, if applicable) to transfer the information, the date compressed (if applicable), and file encryption information.

4.9.2 Preservation

- [A] Preserve records for the duration of their authorized retention period to verify their availability and provide verification of work performed by the facility and its supporting agencies.

4.9.3 Storage

- [A] Label all electronic media (computer generated) used to store records properly with the following: originating organization, filename, retention period (obtain from Lead Records Custodian), original software used, and the version of the software.

4.9.4 Media Backup

- [A] Back up electronic records on a regular basis to safeguard against the loss of information due to equipment malfunctions or human error.

4.9.5 Hardware/Software Changes

- [A] Protect records media **AND** migrate information before the media is no longer useful.
 - [A.1] As software programs change, transfer existing records to the newer software program.
 - [A.2] As hardware is phased out or upgraded, verify that all existing records can be read utilizing the new hardware.
 - (a) **IF** new software and hardware will **NOT** read the current electronic record(s), **THEN** migrate the records to a more accessible media.
 - (b) **IF** migration is **NOT** possible, **THEN** retain either the old software and hardware **OR** make a printout of the data **AND** file the hard copy.

4.10 Transmitting Records

NOTE

Transmitting completed QA records is for records going from one location or site to another.

NOTE

Records being forwarded within a Host site location or between Project-Office personnel DOES NOT need an Attachment 2. Completed QA Records being sent from one location or site to another will be sent using Attachment 2.

4.10.1 Transmitting Complete QA Records

- [A] Send completed QA records (e.g., BDRs) via Attachment 2 to the Records Custodians/Facility Records Custodians.
 - [B] Before the completed QA record is transmitted, make a copy of Attachment 2 and the record, **AND** retain until receipt acknowledgement is received from the recipient.
-

NOTE

Transmittal of completed characterization records to the Host (generator/storage) site (when available) is performed according to the site-specific procedure regarding the submittal of characterization records to their records center. These characterization records will be maintained in accordance with their site-specific records procedures.

NOTE

Records that are designated as lifetime records shall be maintained for the life of the waste characterization program at a participating generator/storage site plus six years, or transferred to the WIPP Records Archive facility. Records designated as non-permanent records shall be maintained for 10 years from the date of record/generation at the participating generator/storage site, or at the WIPP Records Archive facility.

Records Custodian

4.10.2 Transmitting of Completed Characterization Records to the Host (generator/storage) Site or WIPP Records Archive (as applicable)

- [A] Return characterization records to the Host (generator/storage) site location or WIPP Records Archive (as applicable) either at pre-determined intervals **OR** at that end of the waste characterization process in accordance with approved RIDS.

- [B] **IF** the Host (generator/storage) site is closed and will no longer be in operation, **THEN** submit the documentation pertaining to that site to CBFO for permanent archiving, **OR** the WIPP Records Archive at the end of the waste characterization process in accordance with approved RIDS.
-

NOTE

The Waste Confirmation Organization represents the permittees and is required to confirm that waste shipments comply with permit requirements prior to shipment.

4.10.3 Transmitting of Waste Confirmation Video and Audio Media Recording

- [A] Transmit one copy of the video and audio recording media to the Waste Confirmation Organization.

4.11 Unclassified Controlled Nuclear Information (UCNI) and Official Use Only (OUO) Documentation

NOTE

Transmission of UCNI or OUO documents must be by means that preclude unauthorized disclosure or dissemination.

NOTE

UCNI documentation must include the required release and markings identified in DOE M 471.1-1, *Identification and Protection of Unclassified Controlled Nuclear Information Manual*. OUO documentation must include the required release and markings identified in DOE M 471.3-1, *Manual for Identifying and Protecting Official Use Only Information*.

4.11.1 Transmitting of UCNI and OUO Documents

- [A] Documents identified as UCNI must be transmitted to CCP Records with an Attachment 2 and the transmittal must have the following statement placed in the comment section:

Matter transmitted contains Unclassified Controlled Nuclear Information. When separated from enclosures, this transmittal document does not contain UCNI.

- [B] Documents identified as OUO must be transmitted to CCP Records with an Attachment 2 and the transmittal must have the following statement placed in the comment section:
Document transmitted contains OUO information.

- [C] When transmitting externally:
 - [C.1] The UCNI or OUO matter must be contained in a single opaque envelope or wrapping with the recipient's address, a return address, and the words "To Be Opened by Addressee Only."

 - [C.2] Must be sent by the following U.S. mail methods:
First Class, Express, Certified, or Registered Mail,

OR

 - [C.3] Any commercial carrier, FedEx is preferred.

- [D] When transmitting internally the documents may be hand carried as long as the transmitter can maintain control over access to the document being transmitted.

4.11.2 Access and Protection of UCNI and OUO Documents

NOTE

When giving an authorized individual a copy of an UCNI or OUO document, the requirements they will be expected to perform while the document is in their possession must be made clear to the individual, see requirements below.

NOTE

Only authorized individuals may have access to UCNI or OUO documents (e.g., an individual with an official need to know in connection with the performance of official DOE-authorized activities).

- [A] Disseminate UCNI or OUO documentation to only authorized individuals.

- [B] Must maintain physical control of UCNI or OUO documentation to preclude unauthorized disclosure; store in locked receptacles, such as file cabinets, desks, or bookcases.

- [C] Reproduce only to the minimum extent necessary.

- [D] When a copy machine malfunctions during the copying of an UCNI or OOU document the copier must be cleared and all paper paths checked to verify that no UCNI or OOU material remains in the machine.
- [E] After its necessary use by an authorized individual, all copies of UCNI or OOU documentation must be destroyed by using strip cut shredders that result in particles of no more than ¼- inch wide strips or if on a CD the shredding of the disc.
- [F] Electronic UCNI or OOU documentation (e.g., PDF) maintained by CCP Records will be stored on a protected server and the files will be properly marked as UCNI or OOU.

4.12 Internal Use Only (IUO) and No Foreign National (NOFORN)

4.12.1 Transmitting of IUO and NOFORN Documents

- [A] Documents identified as IUO or NOFORN must be transmitted to CCP with an Attachment 2 and the transmittal must have it clearly identified in the Comments section that the document being transmitted is IUO or NOFORN.

4.12.2 Access and Protection of IUO and NOFORN

NOTE

Only individuals within the project may have access to IUO documents. Dissemination outside of the project will not be permitted.

- [A] Disseminate IUO to internal project participants only. NOFORN is not to be disseminated to any Foreign National.
- [B] Must maintain physical control of IUO or NOFORN to preclude unauthorized disclosure; store in locked receptacles, such as file cabinets, desks, or bookcases.
- [C] Reproduce only to the minimum extent necessary.
- [D] After its necessary use by an authorized individual, all copies of IUO and NOFORN must be destroyed by a paper shredder or if on a CD the shredding of the disc.
- [E] Electronic IUO or NOFORN documentation (e.g., PDF) maintained by the CCP Records will be stored on a protected server and the files will be properly marked as IUO or NOFORN.

4.13 Receiving QA Records

4.13.1 Receipt process provides the following:

- [A] Provisions to permit a current and accurate assessment of the status of QA records.
- [B] A method for identifying the records required to be included in the records system.
- [C] A method for identifying the records that have been received.
- [D] Procedures for receipt and inspection of incoming records, including verification that the QA records are received in agreement with the transmittal document and that the records are legible.
- [E] Provisions to control and protect the records from damage or loss during the receiving processes.
- [F] A method for submittal of completed records to the storage facility without unnecessary delay.

4.13.2 Each Host (generator/storage) site or organization responsible for receipt of QA records, designate the person or organization responsible for receiving records.

4.13.3 Ensure that the Attachment 2 is in agreement with the transmitted record and that it is legible and complete.

- [A] **IF NOT,**
THEN notify the sender and perform the following:
 - [A.1] Work to resolve the issues with the sender.
 - [A.2] **IF** unable to resolve the issues,
THEN identify the record was rejected on Attachment 2 and return Attachment 2 and record to the sender.

4.13.4 Enter all QA records into the Records Index Module.

NOTE

Once QA records have been received in CCP Records, original records will **NOT** be removed without a specific need for the original record to be released. If an original record is removed from CCP Records, it is to be returned within fourteen (14) calendar days.

4.14 Retrieval of Original Records from CCP Records at the Project Office

4.14.1 Requests for retrieval of **ORIGINAL** records are handled as follows:

- [A] Requestor, provide a written request to CCP Records providing the reason for the request and when the record will be returned.

Records Custodian/Facility Records Custodian

4.14.2 Process requests for retrieval of records already placed into CCP Records as follows:

- [A] Pull the requested record.
- [B] Make a copy of the record or assure that there is a PDF copy of the record.
- [C] **IF** there is not a PDF scanned copy of the record, **THEN** place a copy of record into the records file.
- [D] Place a completed Check Out Card in the record file.
- [E] Notify requestor of availability of the requested record for pick-up **OR** deliver the **ORIGINAL** requested record to the person who made the request.

4.15 Destruction of QA and Non-QA Records

4.15.1 Destruction of QA Records

- [A] **DO NOT** destroy QA records until each of the following conditions are met:
 - [A.1] Expiration of the NARA approved retention, as noted in the CCP RIDS, has occurred.
 - [A.2] Evaluation of lifetime records for the potential need to upgrade them to post-closure records has been performed by the CCP Manager or designee.

[A.3] CCP Manager or designee determines if regulatory requirements are satisfied, operational status permits the disposal of such records, and the related contractual requirements have been satisfied.

[A.4] In cases of conflicting requirements concerning records retention requirements, the most stringent requirements shall be used in determining the final disposition.

AND

[A.5] CCP Manager or designee determines that there are no enforcement actions against the CCP.

NOTE

QA records that may be relevant to an enforcement action, regardless of disposition, will be maintained until the New Mexico Environment Department (NMED) determines they are no longer needed for enforcement action, and then the records may be dispositioned as directed in step 4.15.2.

[B] **IF** all of the listed conditions are **NOT** met, **THEN DO NOT** destroy the affected records series, **AND** CCP Manager or designee, follow step 4.15.3.

[C] **IF** all of the listed conditions are met, **THEN** CCP Manager or designee complete the Written Request for Records Destruction, (See Attachment 1, Written Request for Records Destruction), for an example **AND** submit to the WRMS Manager before destroying QA records.

[D] Upon receipt of the approved written concurrence, CCP Manager or designee forward the approval to the Lead Records Custodian.

Lead Records Custodian

[E] Receive the approved written concurrence and disposition the QA records.

4.15.2 Destruction of Nonpermanent, Non-QA Records

Lead Records Custodian

[A] Determine which nonpermanent records series are eligible for destruction by reviewing the RIDS to determine the length of time the records series is to be retained.

- [B] Inform the CCP Manager or designee of the records which have expired retention periods.

CCP Manager or Designee

- [C] **IF** in agreement,
THEN the CCP Manager or designee, completes and forwards Written Request for Records Destruction, including a reference to the current RIDS, to the WRMS Manager before destroying the nonpermanent, non-QA records.

Lead Records Custodian

- [D] After receiving the approved written concurrence, disposition identified non-permanent or non-QA records.

4.15.3 Requesting an Extension of the Record Retention Period

- [A] **IF** the CCP Manager or designee determines that the approved record retention period needs to be extended,
THEN CCP Manager or designee, perform the following:
- [A.1] Send a memorandum to the WRMS Manager with a request and justification of an extension.
 - [A.2] Maintain the memorandum with the respective RIDS.
 - [A.3] Take the appropriate action, depending on the response to the memorandum.

5.0 RECORDS

5.1 Records generated during the performance of this procedure are maintained as QA records in accordance with the requirements of this procedure. The records are the following:

5.1.1 Non-QA

- [A] Written Request for Records Destruction
- [B] Written Request for Retrieval of Original Record
- [C] Request for Extension Memorandum

5.1.2 QA/Nonpermanent

- [A] Attachment 2 – CCP Records Transmittal/Receiving Form
- [B] Records Index Module

Attachment 1 – Written Request for Records Destruction (Example)

TRU SOLUTIONS

John Smith
S.M. Stoller Corporation
2101A South Canal
Carlsbad, NM 88220

SUBJECT: REQUEST FOR CONCURRENCE TO DISPOSE OF RECORDS

Dear Mr. Smith:

This is a request for concurrence to dispose of the following record series according to our current Records Inventory and Disposition Schedule dated April 10, 2004.

<u>RECORD SERIES</u>	<u>RETENTION PERIOD</u>	<u>INCLUSIVE DATES</u>
Landlord Housekeeping Pre-checklists - Item #24	1 year	January, 2003 through July, 2003
Key Inventory Logs - Item #17	2 years	January, 2002 through June, 2002

If you have any questions, please contact Ms. Jane Smith, of my staff,
at (575)628- 5810.

Sincerely,

CONCURRENCE:

David Doe
Characterization Project Manager

John Smith, Manager
WIPP Records Management
Services (WRMS)

SP: ab

cc: J. Smith, S.M. Stoller Corporation

CCP-QP-010

Revision 24

CCP Document Preparation, Approval, and Control

EFFECTIVE DATE: 07/19/2013

Mike Ramirez

PRINTED NAME

APPROVED FOR USE

RECORD OF REVISION

Revision Number	Date Approved	Description of Revision
15	03/14/2007	Revised note in Section 2.3, clarifying the format for documents previously used in a certified program.
16	08/02/2007	Revised to create consistency in wording pertaining to submitting data quality and performance criteria affecting changes to U.S. Department of Energy – Carlsbad Field Office (DOE/CBFO) for review and approval. Relocated section pertaining to validator review.
17	01/16/2008	Revised to allow additional unit of designation for acceptable knowledge (AK) documents. Also, revised to address concern raised during Quality Assurance (QA) audit A-08-07.
18	05/28/2009	Revised to move the site technical representative (STR) after the Site Project Manager (SPM) in order to reorganize the document review cycle. Added step 2.2.3[F] clarifying the process for obtaining CBFO signature approvals on cover sheets of certain CCP documents. Added a NOTE in step 3.6 and step 4.1.20 clarifying the validation process for technical operating procedures. Incorporated a number of editorial corrections throughout the procedure.
19	03/12/2010	Revised based on conditions identified in CAR-CCP-0001-10. Removed requirement to identify Corrective action Report (CARs) and Nonconformance Reports (NCRs) in revision history and clarified notes in Attachment 1, Technical Procedure Writer's Guide.
20	06/30/2010	Revised to bring this procedure in line with the new revision of CCP-TP-005, <i>CCP Acceptable Knowledge Documentation</i> , and to update the records section.
21	10/06/2010	Revised to update references to the <i>Waste Isolation Pilot Plant Hazardous Waste Facility Permit</i> .
22	03/29/2011	Revised to update figure/table formatting and referencing, records requirements, and other editorial changes.
23	04/11/2012	Revised Section 5.1.1 to identify the content of document record packages in response to CBFO CAR 12-011, added RH document designators in Section 2.3.1, and clarified the use of "example" forms in Section 4.6 of Attachment 1.
24	07/19/2013	Revised to incorporate the Nuclear Waste Partnership (NWP) transition changes.

TABLE OF CONTENTS

1.0 PURPOSE 4
1.1 Scope..... 4

2.0 REQUIREMENTS..... 5
2.1 References 5
2.2 Quality Assurance (QA) Requirements 6
2.3 Document Format Requirements 9
2.4 Document Distribution and Control 13
2.5 Additional Plan-Specific Requirements 13

3.0 RESPONSIBILITIES..... 14
3.1 All CCP Personnel 14
3.2 Document Originator..... 14
3.3 Technical Reviewer 15
3.4 Subcontract Technical Representative (STR)..... 15
3.5 Facility Safety Representative (FSR)..... 15
3.6 Validator..... 16
3.7 Site Project Manager (SPM) 16
3.8 CCP Quality Assurance (QA)..... 17
3.9 Document Writer 17
3.10 Review and approval of CCP Documents..... 18

4.0 PROCEDURE..... 20
4.1 Processing Documents 20
4.2 Document Use 25
4.3 Process Steps Specific to CCP-PO-001 26
4.4 Canceling a Document..... 26
4.5 Minor Changes to CCP Documents 27

5.0 RECORDS..... 29

LIST OF TABLES

Table 1. Procedure Format (Example) 11

LIST OF ATTACHMENTS

Attachment 1 – Technical Procedure Writer’s Guide..... 30
Attachment 2 – Verb Usage 58

LIST OF APPENDIXES

Appendix 1. Sample Procedure..... 48

1.0 PURPOSE

This procedure describes the process for preparing, reviewing, approving, issuing, and controlling the distribution of Central Characterization Program (CCP) documents controlled by CCP Document Services.

1.1 Scope

This procedure applies to waste characterization and certification documents, including transportation, certification, and waste packaging. Documents can include instructions, procedures, plans, drawings, test plans, management plans, technical reports, performance reports, and test reports.

2.0 REQUIREMENTS

2.1 References

Baseline Documents

- CCP-PO-002, *CCP Transuranic Waste Certification Plan*

Referenced Documents

- DOE-STD-1029-92, *DOE Standard Writer's Guide for Technical Procedures*
- DOE/WIPP 01-3187, *Quality Assurance Program Plan for TRUPACT-II Gas Generation Test Program*
- DOE/WIPP-02-3122, *Transuranic Waste Acceptance Criteria for the Waste Isolation Pilot Plant*
- DOE/WIPP-02-3214, *Remote-Handled TRU Waste Characterization Program Implementation Plan*
- *Waste Isolation Pilot Plant Hazardous Waste Facility Permit, Waste Analysis Plan*
- DOE-CBFO-94-1012, *U.S. Department of Energy Carlsbad Field Office Quality Assurance Program Document*
- CCP-PO-001, *CCP Transuranic Waste Characterization Quality Assurance Project Plan*
- CCP-PO-002, *CCP Transuranic Waste Certification Plan*
- CCP-PO-003, *CCP Transuranic Authorized Methods for Payload Control (CCP CH-TRAMPAC)*
- CCP-PO-006, *CCP Conduct of Operations Matrix*
- CCP-PO-016, *CCP Gas Generation Testing Program Quality Assurance Project Plan*
- CCP-PO-401, *CCP Contact-Handled Transuranic Authorized Methods for Payload Control (CCP CH-TRAMPAC) For Intersite Shipments*
- CCP-PO-505, *CCP Remote-Handled Transuranic Waste Authorized Methods for Payload Control (CCP RH-TRAMPAC)*

- CCP-QP-001, *CCP Graded Approach*
- CCP-QP-008, *CCP Records Management*
- CCP-TP-005, *CCP Acceptable Knowledge Documentation*
- WP 09-10, *WIPP Preparation Guide for System Design Description Documents*

2.2 Quality Assurance (QA) Requirements

2.2.1 This procedure implements specific quality assurance (QA) requirements for preparing documents used in the characterization, certification, and packaging of transuranic (TRU) waste. This includes waste characterization and certification documents, including transportation, certification, and waste packaging. Documents can include instructions, procedures, plans, drawings, test plans, management plans, technical reports, performance reports, and test reports.

2.2.2 Documents are reviewed for adequacy, correctness, and completeness prior to approval and issuance.

2.2.3 The following requirements apply to new documents and revisions to documents and are followed when preparing or processing a document.

[A] New documents are denoted as "Revision 0," and subsequent revisions are denoted by the next sequential revision number. The revision number is placed on the front page of the document, and in the header on each page of the document.

NOTE

The CCP reissues an entire document electronically rather than only changed pages. Deleted text is not displayed in the issued document.

[B] Revision bars, indicating a change to the text, are included along the left-hand margin of the page. Revision bars will only show the changes made to a new revision.

[C] Requests for a document revision identify the changes required. Document reviews consider technical adequacy and completeness, and assure that the revised contents continue to satisfy the requirements of CCP-PO-001, *CCP Transuranic Waste Characterization Quality Assurance Project Plan (QAPjP)*, CCP-PO-002, *CCP Transuranic*

Waste Certification Plan, CCP-PO-003, CCP Transuranic Authorized Methods for Payload Control (CCP CH-TRAMPAC), CCP-PO-401, CCP Contact-Handled Transuranic Authorized Methods for Payload Control (CCP CH-TRAMPAC) For Intersite Shipments, or CCP-PO-505, CCP Remote-Handled Transuranic Authorized Methods for Payload Control (CCP RH-TRAMPAC), DOE/WIPP 01-3187, Quality Assurance Program Plan for TRUPACT-II Gas Generation Test Program (QAPP), DOE/WIPP-02-3214, Remote-Handled TRU Waste Characterization Program Implementation Plan, and DOE-CBFO-94-1012, U.S. Department of Energy Carlsbad Field Office Quality Assurance Program Document (QAPD).

- [D] Changes to documents, other than those defined as editorial changes or minor changes, shall be reviewed and approved by the same functional organizations that performed the original review and approval unless other organizations are specifically designated by the Site Project Manager (SPM). Section 4.5 discusses reviews required for minor changes.
- [E] Document changes are evaluated and approved by the SPM and CCP QA before implementation. Documents requiring U.S. Department of Energy - Carlsbad Field Office (DOE/CBFO) approval are: CCP-QP-001, *CCP Graded Approach*; CCP-PO-001; CCP-PO-002; CCP-PO-003; CCP-PO-006, *CCP Conduct of Operations Matrix*; CCP-PO-016, *CCP Gas Generation Testing Program Quality Assurance Project Plan*; CCP-PO-401, and CCP-PO-505. DOE/CBFO also approves new documents and changes to documents that could impact data quality or performance criteria as defined in CCP-PO-001 and CCP-PO-002.
- [F] Documents that require DOE/CBFO signature approval on the cover sheet are assigned Effective Dates using one of the following two options:
- The Effective Date is left blank until after all approval signatures have been obtained, including those of DOE/CBFO. The Effective Date is stamped on the original document once all the required approvals are complete. For this option, the Effective Date is the date that the document is actually issued in Q&MIS®.
 - A pre-selected Effective Date is assigned that is several days later than the date the document and cover sheet are circulated for signature approval.

This option allows for the time it takes to obtain CCP Management and DOE/CBFO signature approvals. If all required approvals are complete before the pre-selected Effective Date, the document must be held until the pre-selected Effective Date before it can be issued in Q&MIS®.

2.3 Document Format Requirements

NOTE

CCP-PO-001 follows the document format of the *Waste Isolation Pilot Plant Hazardous Waste Facility Permit, Waste Analysis Plan (WAP)*; CCP-PO-002 follows the format of DOE/WIPP-02-3122, *Transuranic Waste Acceptance Criteria for the Waste Isolation Pilot Plant (WAC)*, CCP-PO-003, CCP-PO-401, and CCP-PO-505 follow the format of the *CH-TRAMPAC* and the *RH-TRAMPAC*, CCP-PO-016 follows the format of DOE/WIPP 01-3187, and CCP-PO-006 is a matrix.

The format for CCP acceptable knowledge (AK) summary reports is defined in CCP-TP-005, *CCP Acceptable Knowledge Documentation*.

The format for technical procedures developed jointly with Host sites is defined in the Host site-specific interface document. These procedures are approved by both the Host site and CCP. As a minimum, technical procedures developed jointly with Host sites contain the sections shown in Table 1, Procedure Format (Example) (not necessarily in the order shown in Table 1, but the sections must be included somewhere in each jointly-developed technical procedure).

The format for configuration management (CM) procedures will contain, as a minimum, the sections shown in Table 1 (not necessarily in the order shown in Table 1, but the sections must be included somewhere in each document).

The format for CM documents designated as equipment descriptions will follow the format designated in WP 09-10, *WIPP Preparation Guide for System Design Description Documents*.

The format for documents that are from a previously certified program DO **NOT** have to follow Table 1. The documents may be used in their current format as long as they are modified to reference CCP quality procedures for quality program activities such as preparation of Nonconformance Reports (NCRs) and processing and control of records. The extent of modification will be sufficient to ensure that no quality documents from the previously certified program are required in order to perform the activities described in the documents, and that all quality program activities in the procedure are linked to CCP quality procedures.

- 2.3.1 CCP documents will include a unique document number. For example, CCP Project Office (PO) documents are designated as CCP-PO-XXX. Health and Safety Plans (HSP) are designated as CCP-HSP-XXX. QA procedures (i.e., Quality Procedures [QP]) are designated as CCP-QP-XXX. Technical Procedures (TP) are designated as CCP-TP-XXX. CM documents are designated as CCP-CM-XXX, and new AK documents are designated as

CCP-AK-Site-XXX, where “site” indicates the associated Host site (e.g., Idaho National Laboratory [INL], Savannah River Site [SRS], Los Alamos National Laboratory [LANL]). Process Knowledge (PK) documents are designated as CCP-PK-Site-XXX. The “XXX” is a unique sequential identifier. CCP-RC-site-5x1 – Radiological Characterization Technical Report, CCP-CP-site-5x2 – Certification Plan, CCP-EP-site-5x3 – QA Equivalency Plan, CCP-SA-site-5x5 – Sampling Analysis Plan, CCP-CN-site-5x6 – Confirmatory testing, CCP-CR-site-5x7 – Corroborating data. Procedures use the subsections/format shown in Table 1. Additional subsections may be included for procedure clarification and readability. Attachment 1, Technical Procedure Writer’s Guide, is provided as a guide for calibration, maintenance, and operating procedures, and provides an example of a technical procedure in Appendix 1, Sample Procedure.

Table 1. Procedure Format (Example)

CCP-XX-XXX, Rev. X CCP Document Title	Effective Date: xx/xx/20XX Page X of X
COVER SHEET	
RECORD OF REVISION	
TABLE OF CONTENTS	
1.0 PURPOSE	The purpose section explains why the document was written (e.g., to establish or describe a process).
1.1 Scope	The scope describes what activities or processes are included and/or addressed in the procedure.
2.0 REQUIREMENTS	Project upper-tier document requirements (baseline and referenced) are referenced in this section, in addition to project-specific requirements, if applicable. This section defines specific terms used in the procedure, when appropriate. This section defines training requirements. This section may also identify software used in fulfilling requirements of a procedure. For TPs, this section also includes the equipment list, precautions and limitations, and prerequisite actions, as necessary.
3.0 RESPONSIBILITIES	The responsibilities section identifies specific responsibilities for personnel of facilities/organizations performing functions under the procedure.
4.0 PROCEDURE	This section identifies the steps to be completed in performing the procedure. Except for TP documents, this section may be plans, interface requirements, and not action steps per se.
5.0 RECORDS	Records generated, as a function of performing the procedure, are identified as lifetime, nonpermanent, or non-QA records.
Attachments (as needed)	

2.3.2 The Document Writer provides a cover sheet for procedures that includes an authorization for use line. The Document Writer also provides a header that is placed on the individual pages, excluding the cover page of a document, which includes the following information:

- Unique number identifier
- Current revision number
- CCP Document Title
- Effective date
- Page number

2.3.3 Implementing QPs, TPs, and CM procedures include the following information as appropriate to the work to be performed:

- [A] Responsibilities and interfaces of the organizations affected by the document.
- [B] Technical, regulatory, QA, or other project requirements.
- [C] Sequential description of the work to be performed, including any allowance for out-of-sequence processing.
- [D] Quantitative or qualitative acceptance criteria sufficient for determining that activities were satisfactorily accomplished.
- [E] Prerequisites, limits, precautions, process parameters, and environmental conditions.
- [F] Special qualification and training requirements or reference to special qualification and training requirements.
- [G] Methods for demonstrating that the work was performed as required (such as provisions for recording inspection and test results, checklists, or sign-off blocks).
- [H] Identification and classification of QA records generated by the implementing procedure.

2.4 Document Distribution and Control

NOTE

Document preparation, issuance, and changes that specify requirements or prescribe actions affecting quality are controlled by CCP Document Services to ensure current and correct documents are used and referenced.

2.4.1 Controlled documents are distributed and used in accordance with the following criteria:

- [A] With the exception of AK and PK documents, controlled documents are available electronically to CCP personnel for use via the common shared area (secure file transfer protocol [sftp] site). All controlled documents are available through the electronic document control system (Q&MIS[®]).
- [B] Effective dates are established and identified on the approved documents.
- [C] Obsolete, void, or superseded documents are removed from the applicable shared areas and replaced, when applicable, with revised documents on the effective date of change.
- [D] Controls are established and maintained to identify the current status or revision of controlled documents.
- [E] Documents on the sftp site and in Q&MIS[®] cannot be altered without appropriate approval.

2.5 Additional Plan-Specific Requirements

- 2.5.1 The review of CCP-PO-001 includes review for technical adequacy, completeness, correctness, and the inclusion of and compliance with the requirements established by the WAP.
- 2.5.2 The review of CCP-PO-002 includes review for technical adequacy, completeness, correctness, and the inclusion of and compliance with the requirements established by the WAC.
- 2.5.3 The review of CCP-PO-003, CCP-PO-401, and CCP-PO-505 includes review for technical adequacy, completeness, correctness, and the inclusion of and compliance with the requirements established by the *CH-TRAMPAC*, *CCP CH-TRAMPAC*, and the *CCP RH-TRAMPAC*.
- 2.5.4 The review of CCP-PO-016 includes review for technical adequacy, completeness, correctness, and the inclusion of and compliance with the requirements established by the QAPP.

3.0 RESPONSIBILITIES

NOTE

Reviewers of implementing procedures shall review document change proposals for compliance with the following driver documents, as applicable:

- CCP-PO-001
 - CCP-PO-002
 - CCP-PO-003 or CCP-PO-505
 - CCP-PO-016
 - CCP-PO-401
 - DOE/WIPP-02-3214
 - DOE/CBFO-94-1012
-

3.1 All CCP Personnel

NOTE

The revision of the document that is current at the beginning of the shift shall be used throughout the shift unless a STOP WORK order is issued.

- 3.1.1 Confirms at the beginning of each shift that the current revision of the document is being used by checking the sftp site or contacting CCP Document Services.
 - 3.1.2 Reports any obsolete or superseded information to the SPM.
 - 3.1.3 Proposes creation of a new document or changes to an existing CCP document to the SPM, as needed.
-

NOTE

The Document Originator can be anyone who wants to develop a new document or revise/delete an existing document.

3.2 Document Originator

- 3.2.1 Proposes creation of a new document or changes to an existing CCP document to the SPM.
- 3.2.2 Researches regulatory, administrative, and operational requirements to justify the proposal.
- 3.2.3 Performs initial walkthrough of the proposed change or new document to verify functionality with the responsible reviewer prior to submittal to the SPM.

- 3.2.4 Drafts new documents and document revisions in conjunction with the Document Writer.
- 3.2.5 In conjunction with the SPM or the Technical Reviewer, ensures that reviewer comments are resolved with the responsible reviewer and determines if the document requires re-review by assigned reviewers.
- 3.2.6 Provides technical comments/information to the Document Writer when revising documents.
- 3.2.7 Reviews and verifies document for adequacy, correctness, and technical content.
- 3.2.8 Ensures document complies with driver documents, as applicable.
- 3.3 Technical Reviewer
 - 3.3.1 Provides technical comments to the Document Writer.
 - 3.3.2 Reviews and verifies document for adequacy, correctness, and technical content.
 - 3.3.3 Ensures document complies with driver documents, as applicable.
- 3.4 Subcontract Technical Representative (STR)
 - 3.4.1 Reviews all changes to applicable documents (defined in the Host site-specific interface document) prior to implementation.
 - 3.4.2 Provides comments to the Document Writer.
- 3.5 Facility Safety Representative (FSR)
 - 3.5.1 Reviews all changes to applicable documents (defined in the Host site-specific interface document) prior to implementation, to maintain the facility within the safe operating boundaries.
 - 3.5.2 Provides comments to the Document Writer.

- 3.6 Validator
 - 3.6.1 Verifies and validates technical operating procedures by using step-by-step walkthroughs or similar methods.
 - 3.6.2 Ensures the document's instructions are clear, correct, and concise.
 - 3.6.3 Provides comments to the Document Writer.
- 3.7 Site Project Manager (SPM)

NOTE

SPM approval to create or revise a CCP document, and assignment of designated reviewers, is documented by approval of the document by the SPM.

- 3.7.1 Concurs with the need to write new document or make changes to an existing CCP document prior to development.
- 3.7.2 Determines and assigns the appropriate technical reviewers to provide review for the document.
- 3.7.3 Provides permission to the Document Writer for concurrent and/or expedited review.
- 3.7.4 Reviews document for accuracy of content.
- 3.7.5 Verifies compliance with driver documents, as applicable.
- 3.7.6 Reviews all changes to all CCP documents to evaluate whether those changes could positively or negatively impact Data Quality Objectives (DQOs) for the purpose of reporting those changes to DOE/CBFO.
- 3.7.7 Approves all CCP documents.
- 3.7.8 Provides comments to the Document Writer.
- 3.7.9 Concurs with the resolution of any DOE/CBFO comments.

- 3.8 CCP Quality Assurance (QA)
 - 3.8.1 Provides QA oversight for the preparation, review, and approval process and reviews DOE/WIPP 94-1012, CCP-PO-001, CCP-PO-002, CCP-PO-016, CCP-PO-003, CCP-PO-401, or CCP-PO-505 for requirements compliance.
 - 3.8.2 Provides comments to the Document Writer.
 - 3.8.3 Approves all CCP documents.
- 3.9 Document Writer
 - 3.9.1 Coordinates preparation, review, approval, and issuance of controlled documents.
 - 3.9.2 Coordinates and tracks document activity.
 - 3.9.3 Assigns new document numbers and titles.
 - 3.9.4 Prepares cover sheet, as necessary.
 - 3.9.5 Performs editing on draft document prior to review.
 - 3.9.6 Distributes the document through Q&MIS[®] to the review/approval personnel.
 - 3.9.7 Forwards review comments to the document originator for comment resolution and disposition.
 - 3.9.8 Updates the sftp site and Q&MIS[®], and checks that these document locations are current.
 - 3.9.9 Maintains the electronic and hard copy approvals generated by this procedure for each document processed.

3.10 Review and approval of CCP Documents

NOTE

Pertinent background information or data shall be made available by the organization requesting the review if the information is not readily available to the reviewer.

NOTE

CCP documents are developed for activities that affect the quality of the waste characterization and certification process and are reviewed before approval by qualified and independent individuals. This review and approval process is accomplished before implementation of CCP activities.

Reviews will be performed by individuals, other than the document originator, who are technically competent in the subject area being reviewed.

3.10.1 All CCP documents are, at a minimum, reviewed and approved by the technical reviewer, CCP QA, and the SPM, except for minor changes as explained in Section 4.5.

3.10.2 The SPM may assign other personnel to review documents and will inform CCP Document Services of other reviewers.

3.10.3 Host site STRs and FSRs will review documents as designated in their respective Host site-specific interface document.

3.10.4 In addition to the requirements above, CCP-PO-001, CCP-PO-002, CCP-PO-003, CCP-PO-006, CCP-PO-016, CCP-PO-401, CCP-PO-505, and CCP-QP-001 are also reviewed and approved by CCP Management and DOE/CBFO as follows:

[A] The SPM, CCP QA, CCP Manager, and DOE/CBFO Manager reviews and approves CCP-PO-006. The DOE/CBFO Manager signs the cover sheet.

[B] The SPM, CCP QA, CCP Manager, DOE/CBFO QA Manager, and DOE/CBFO Office Director, Office of National TRU Program, reviews and approves CCP-PO-001, CCP-PO-002, CCP-PO-003, CCP-PO-401, CCP-PO-016, and signs the cover sheet.

[C] The SPM, CCP QA, RH Manager, DOE/CBFO QA Manager, and DOE/CBFO Office Director, Office of National TRU Program, reviews and approves CCP-PO-505 and signs the cover sheet.

[D] The SPM, CCP QA, and DOE/CBFO QA Manager reviews and approves CCP-QP-001, and documents approval within Q&MIS[®], or via email.

3.10.5 The documents listed in step 3.10.4 are forwarded to DOE/CBFO via e-mail with a full justification of changes and changes that could impact data quality or performance criteria as defined in CCP-PO-001 and CCP-PO-002 in the text of the e-mail at: site.documents@wipp.ws.

3.10.6 All proposed new documents and revisions to documents that could impact data quality or performance criteria as defined in CCP-PO-001 and CCP-PO-002 must be submitted to DOE/CBFO via e-mail with a full justification of changes in the text of the e-mail. All changes that could impact data quality or performance criteria as defined in CCP-PO-001 and CCP-PO-002 must be listed and described in the text of the e-mail. Document submittal e-mails are provided to DOE/CBFO via the DOE/CBFO e-mail site at: site.documents@wipp.ws.

4.0 PROCEDURE

NOTE

Upon resolution of comments, the Document Originator will determine if the nature and extent of the changes warrants a re-review of the draft document.

NOTE

An interactive, concurrent, expedited, or non-sequential review may be performed in lieu of a sequential review, with permission from the SPM.

4.1 Processing Documents

NOTE

The Document Originator can be anyone who wants to develop a new document or revise/delete an existing document.

Document Originator

- 4.1.1 Develop proposed changes, with a justification for the change, and a summary of the change for the Record of Revision.
- 4.1.2 Perform an initial walkthrough of the document to verify functionality.
- 4.1.3 Submit proposed changes to CCP Document Services.

Document Writer

- 4.1.4 Forward proposed changes to the SPM.

SPM

NOTE

Changes to documents, other than those defined as editorial changes or minor changes, shall be reviewed and approved by the same functional organizations that performed the original review and approval, unless other organizations are specifically designated by the SPM.

NOTE

SPM approval to create or revise a CCP document, and assignment of designated reviewers, is documented by approval of the document by the SPM.

- 4.1.5 Concur with or deny the proposal to develop a new document or changes to existing documents.

- 4.1.6 Determine the organizations that are affected and/or the organizations that have responsibilities as a result of implementing the document.
- 4.1.7 Identify/designate the validator, if applicable, and other document reviewers, ensuring compliance with the applicable Host site-specific interface documents.
- 4.1.8 Inform the Document Writer of the validator, if applicable, and other reviewers.

Document Writer

- 4.1.9 **IF** new document,
THEN assign a document number to track the draft preparation, review comments, comment resolution, final document preparation, and distribution.
- 4.1.10 Format and edit draft document, **AND** make an entry in the Record of Revision briefly describing the purpose of the revision or new document.
- 4.1.11 **IF** the revision is for a minor change as defined in Section 4.5,
THEN confirm the words "Minor Change" appear in the Record of Revision.
- 4.1.12 Distribute the draft document for review through Q&MIS[®] to the reviewers, as designated by the SPM.
- 4.1.13 Place an Adobe[®] Portable Document File (pdf) copy of the draft document on the sftp site in the Draft Documents folder, via a standard windows-based operation, for viewing by external reviewers.

Technical Reviewers

- 4.1.14 Perform the review using the criteria established in Section 3.3.
- 4.1.15 Transmit comments to the Document Writer via e-mail, within Q&MIS[®], or hard copy (e.g., fax copy, hand written copy).

Document Writer

- 4.1.16 Forward comments to the Document Originator for resolution.

- 4.1.17 Upon resolution of comments from the Document Originator, incorporate comments, **AND** distribute draft document for review through Q&MIS®.
- 4.1.18 Place a copy of the draft document on the sftp site in the Draft Documents folder, via a standard windows-based operation, for viewing by external reviewers.

NOTE

Validation reviews will be performed by individuals other than the Document Originator. The Validator shall be technically competent in the subject area being validated.

Validation is required for all new technical operating procedures. The SPM will determine if validation is required to revisions of existing technical operating procedures. Validation must be performed by using step-by-step walkthroughs or similar methods.

Validator (if applicable)

NOTE

Validation of technical operating procedures is to be performed by a two-person team. One person reads the operating steps aloud while the other person verifies that they can be performed just as written.

- 4.1.19 **IF** the document requires validation per SPM direction, **THEN** perform the following:
- [A] Perform the document exactly as written using step-by-step walkthroughs or similar methods.
 - [B] Perform the review using the criteria established in Section 3.6.
 - [C] Transmit comments to the Document Writer via email, within Q&MIS®, or hard copy (e.g., fax copy, hand written copy).

Document Writer

- 4.1.20 Forward comments to the Document Originator for resolution.
- 4.1.21 Upon resolution of comments from the Document Originator, incorporate comments, **AND** distribute draft document for review through Q&MIS®.

4.1.22 Place a copy of the draft document on the sftp site in the Draft Documents Folder, via a standard windows-based operation, for viewing by external reviewers.

SPM/CCP QA Review

4.1.23 Perform the review using the criteria established in Sections 3.7 and 3.8.

4.1.24 Transmit comments to the Document Writer via e-mail, within Q&MIS[®], or hard copy (e.g., fax copy, hand written copy).

Document Writer

4.1.25 Forward comments to the Document Originator for resolution.

4.1.26 Upon resolution of comments from the Document Originator, incorporate comments, **AND** distribute draft document for review through Q&MIS[®].

4.1.27 Place a copy of the draft document on the sftp site in the Draft Documents Folder, via a standard windows-based operation, for viewing by external reviewers.

FSR and/or STR (if applicable)

4.1.28 **IF** the document requires review per the Host site-specific interface document,
THEN perform the following:

[A] Review the document.

[B] FSR, review the document to ensure the facility is maintained within safe operating boundaries, **AND** is in compliance with site authorization basis and the Host site-specific interface document.

[C] Transmit comments to the Document Writer via email, within Q&MIS[®], or hard copy (e.g., fax copy, hand written copy).

Document Writer

4.1.29 Forward comments to the Document Originator for resolution.

4.1.30 Upon resolution of the comments by the Document Originator, incorporate comments, **AND** distribute draft document for review through Q&MIS[®].

4.1.31 Place a copy of the draft document on the sftp site in the Draft Documents Folder, via a standard windows-based operation, for viewing by external reviewers.

SPM

4.1.32 **IF** the new document or changes to the existing document could impact data quality or performance criteria as defined in CCP-PO-001 or CCP-PO-002, **THEN** provide the Document Writer, via e-mail or Q&MIS[®], a full justification for document changes and any changes that could impact data quality or performance criteria as defined in CCP-PO-001 and CCP-PO-002, **AND** direct the Document Writer to send the document to DOE/CBFO within five days of project level review.

Document Writer

4.1.33 **IF** directed by the SPM, **THEN** submit document to DOE/CBFO for review/approval with a full justification for document changes and any changes that could impact data quality or performance criteria as defined in CCP-PO-001 and CCP-PO-002 via e-mail at: site.documents@wipp.ws.

NOTE

DOE/CBFO comments are formally documented on a DOE/CBFO Document Review Record (DRR) which is transmitted to CCP Document Services via e-mail from DOE/CBFO.

4.1.34 **IF** DOE/CBFO provides comments, **THEN** forward comments to the SPM for resolution.

SPM

4.1.35 Resolves DOE/CBFO comments, **AND** transmits the dispositioned DRR to the Document Writer.

Document Writer

4.1.36 Incorporate changes provided by the SPM or designee, **AND** transmit the DRR and revised document to DOE/CBFO via e-mail at site.documents@wipp.ws, **OR** make arrangements for an interactive review as directed by the SPM and/or DOE/CBFO.

NOTE

Finalizing a document includes, but is not limited to, verifying correct format, spelling, and references.

4.1.37 Upon DOE/CBFO approval, finalize document.

4.1.38 Perform the following to the document:

- [A] Remove all Draft indicators on the cover page and in document header(s), **AND** mark as Controlled Copy.
- [B] On the cover page, insert the effective date and the name of the person who approved the procedure.
- [C] Place effective date in document header(s).
- [D] Place effective date in the Record of Revision.

4.1.39 Issue the controlled copy of the document through Q&MIS[®], with read-only access to users.

4.1.40 Perform the following activities:

- [A] Place a pdf copy of the approved document on the sftp site in the Controlled Documents folder, via a standard windows-based operation, for viewing by external users.
- [B] Delete the draft document from the Draft Documents folder on the sftp site.

4.2 Document Use

CCP Personnel

NOTE

Approved documents must be used to ensure that tasks are performed in a consistent manner that results in achieving the quality required.

At the beginning of each shift, CCP personnel will confirm the current revision of the document is being used. This revision of the document will be used throughout the shift unless a STOP WORK order is issued.

4.2.1 Check that the current revision of an approved document is being used by performing one of the following activities:

NOTE

Any hard copies of documents kept at facilities are considered to be working copies requiring verification that they are **NOT** out-of-date prior to use. If the sftp site is unavailable, Document Services may be telephoned to determine which revision is current.

- [A] Verify that the existing working copy is current by comparing the revision number of the working copy to the revision number of the controlled copy of the document on the sftp site in the Controlled Documents folder,

OR

- [B] Print a new working copy of the document on the day of use from the sftp site.

4.3 Process Steps Specific to CCP-PO-001

4.3.1 The SPM and CCP QA ensures CCP-PO-001 meets the requirements listed in Section 2.2 of this procedure and includes:

- [A] The qualitative or quantitative criteria for determining whether the CCP activities are being satisfactorily performed.
- [B] The identity of the CCP organization(s) and positions responsible for the implementation of CCP-PO-001.
- [C] References to CCP-specific documentation that details how each of the required elements of the characterization project are performed.
- [D] A description of the organization, format, content, and designation of the document.
- [E] An approval and date page indicating the document has been reviewed and approved.

4.4 Canceling a Document

CCP Personnel

4.4.1 Notify the SPM and Document Writer that a document needs to be cancelled.

Document Writer

- 4.4.2 Obtain approval for document cancellation from the SPM.
- 4.4.3 Upon receiving approval from the SPM, remove the document from use as follows:
 - [A] Remove all “Controlled Copy” indicators on the cover page and in document header(s), **AND** mark as “OBSOLETE.”
 - [B] Make the document obsolete in Q&MIS®.
 - [C] Remove the document from the sftp site Controlled Documents folder.
- 4.4.4 Notify CCP Training and CCP Records of the document cancellation via email.

NOTE

The SPM decides if notification to other personnel, such as Document Originator, CCP QA, etc., is required.

- 4.4.5 **IF** directed by the SPM,
THEN notify other personnel of the document cancellation.
- 4.5 Minor Changes to CCP Documents
 - 4.5.1 Editorial or minor changes may be made to all CCP documents **except** CCP-PO-001, CCP-PO-002, CCP-PO-003, CCP-PO-016, CCP-PO-401, CCP-PO-505, and CCP-QP-001 without the same level of review and approval as the original document. The following items are considered editorial or minor changes:
 - [A] Correcting grammar or spelling (the meaning has not changed).
 - [B] Renumbering sections or attachments.
 - [C] Updating organization titles.
 - [D] Changes to non-quality affecting schedules.
 - [E] Revising or reformatting forms, providing the original intent of the form has not been altered.
 - [F] Attachments marked “Example,” “Sample,” or exhibits that are clearly intended to be representative only.

- 4.5.2 A change in an organizational title accompanied by a change in responsibilities is not considered an editorial change.
- 4.5.3 Minor changes to the text shall be clearly indicated in the document.
- 4.5.4 All minor Host site-specific changes shall be evaluated and approved by the SPM and CCP QA before implementation.

5.0 RECORDS

5.1 Records generated during the performance of this procedure are maintained as QA records in accordance with CCP-QP-008, *CCP Records Management*. The records are the following:

5.1.1 QA/Nonpermanent

- [A] Document record packages (include as applicable but are not limited to the following):
 - [A.1] Documentation that demonstrates approval by designated individuals.
 - [A.2] Comments and comment resolutions (include attachments, DRRs, emails, letters, etc.), as applicable.
 - [A.3] Document revision request (i.e., initial markup).
 - [A.4] DOE/CBFO submittal email within five days of project level review.

Attachment 1 – Technical Procedure Writer’s Guide

1.0 INTRODUCTION

The purpose of this writer's guide is to establish the style to be used in writing technical procedures. A technical procedure is required when a defined task or activity is to be performed that meets one of the following criteria: (1) provides specific direction for operating equipment and/or systems included in the CM process, and (2) provides specific direction for physical activities that require repeatability and documented results. For example:

- Environmental sampling operations
- Hazardous waste packaging/handling
- Maintenance of equipment

Technical Procedures - prescribe precisely how to accomplish the various technical tasks associated with startup, testing, operation, and maintenance of CCP equipment and systems. Technical procedures specify fixed tasks and define activities in a way that ensures operations are safe, efficient, and practiced within the appropriate margins of safety.

NOTE

The basic steps for developing a procedure can be found in DOE-STD-1029-92, *DOE Standard Writer's Guide for Technical Procedures*.

NOTE

A sample CCP procedure (Appendix 1) has been added to this guide to provide a visual sample.

NOTE

This guide is intended to be used for assistance in procedure development and formatting.

2.0 FORMAT

2.1 Procedure Titles

Write procedure titles that are short, concise, clear, and descriptive of the system, equipment, process, or activity. Avoid using acronyms in procedure titles.

2.2 Section Headings

Break the text of the procedure into sections by grouping related action steps or related functions. Headings perform the following functions:

- Help users locate information in the procedure.
- Break up long series of actions into manageable segments.
- Track progress through the procedure, especially when branching to other sections.
- Give each major activity in the main body of the procedure a unique and descriptive heading.

Major sections have all letters uppercase (e.g., INTRODUCTION, PERFORMANCE).

Secondary sections are initial caps (e.g., Develop Schedule). Secondary sections organize action steps.

2.3 Letter Font and Style

The font and style to be used in the body of the procedure is normally Arial 12.

2.4 Page Margins

Portrait-oriented page margins are normally as follows:

- 1.0 inch top margin
- 1.0 inch bottom margin
- 1.0 inch left margin
- 1.0 inch right margin

Landscape-oriented page margins are normally as follows:

- 1.0 inch top margin
- 0.5 inch bottom margin
- 0.5 inch left margin
- 0.5 inch right margin

2.5 Tab Settings

Tab Settings are normally as follows:

1.0 inch 1.5 inch 2.0 inch 2.5 inch 3.0 inch 3.5 inch 4.0 inch

2.6 Step Numbering

Step numbering is normally as follows:

1.0 Primary section or first-level action step

1.1 Secondary section or second-level action step

1.1.1 Third-level action step

[A] Fourth-level action step

2.7 Emphasis

Emphasize information that, if overlooked or misinterpreted, could result in user error. Use upper case and/or bolding to emphasize important information, unless directed otherwise in this document (e.g., STOP WORK, GO TO, **NOT, IF, THEN, OR, and AND**).

2.8 Title Page

The title page is the first page of a procedure and contains the following information about the procedure:

- Type of procedure
- Document number
- Revision number
- Title
- Effective date
- Approved for use line

2.9 Second Page Header

A two or three-line header will be printed on the second page of a procedure and all subsequent pages, containing the following information:

- (Flush left/first row) procedure number, revision number and (right justified) effective date.
- (Flush left/second row) procedure title and (right justified) page numbering (e.g., Page 1 of 1).

2.10 Record of Revision Page

The Record of Revision page is the second page of a procedure. The table on the page contains a condensed history of the procedure. Data in the table normally are revision number, date of revision, and a short description of what the revision entailed and why the revision was required. If the revision is for a minor change, then the words, "Minor Change" must appear in the Record of Revision.

2.11 Table of Contents

The Table of Contents helps users locate the portions of the procedure they need for a specific operation. The use of a Table of Contents should be done on a graded approach based on the following criteria:

- The number of subsections in the performance section that can be performed independently
- The length of the procedure

Required entries in the Table of Contents are:

- Section headings
- Subsection headings in the Performance Section
- Attachments, if applicable
- Tables, if applicable
- Figures, if applicable
- Appendixes, if applicable

2.12 Grammar

The Gregg Reference Manual is the standard to be used for capitalization, punctuation, and hyphenation (do not use hyphens to break words at the end of a line). Spell out acronyms, abbreviations, symbols, units, and terms not found in Webster's Dictionary or not normally used by the action performer during first usage in the performance section of the procedure.

2.13 Attachment Format

Locate the attachment number and title one line below the page header on the left margin.

Place the attachment title on the same line as the attachment number separated by a space, a long hyphen, and a space (e.g., Attachment 1 – Electronic Symbols).

Locate the attachment page number on the first line of the page, flush right to the margin with the word "Page" followed by the page number of the attachment (not the procedure page number) and the total number of pages of the attachment (e.g., Page 1 of 1).

2.14 Warnings, Cautions, and Notes

NOTE

Action statements **SHOULD NOT** be placed in Warnings, Cautions, or Notes.

WARNINGS attract attention to specific personnel hazards and contain information that is essential to safe performance. Warnings may include conditions, design limitations, practices, and procedures to be complied with to avoid loss of life, personal injury, or health hazards.

Outline warning statements in a single thick-lined box (single row, single column table). Extend the warning box from left margin to right margin.

Leave one blank line above and below the warning box.

Boldface, capitalize, and center the word "warning" inside the box above the text.

Separate the word "warning" from the warning text with one blank line.

Left indent the text of the warning.

Place warnings immediately before and on the same page as the related step (regardless of page length).

Place warnings prior to cautions and notes when a step has both warnings and cautions or notes.

Warning example:

WARNING

DO **NOT** stand between the container and the High Efficiency Particulate Air (HEPA) inlet when removing drum filter.

CAUTIONS attract attention to specific equipment or environmental hazards.

Outline caution statements in a double-lined box (single row, single column table). Extend the caution box from left to right margin.

Boldface, capitalize, and center the word “caution” inside the box above the text.

Separate the word “caution” from the caution text with one blank line.

Left indent the text of the caution.

Place cautions immediately before and on the same page as the related step (regardless of page length).

Place cautions prior to notes when a step has both cautions and notes.

Leave one blank line above and below the caution box.

Caution example:

CAUTION

The DSA1000 units and detectors must warm up and stabilize for at least one hour after the power is applied and HV is turned on prior to drum examination and data acquisition.

NOTES call attention to important supplemental information. The information may be a reminder of preparatory information needed to perform the activities of a step.

Outline notes in a single-lined box (single row, single column table) with no right or left lines. Extend the box from left to right margin. Boldface, capitalize, and center the word “note” inside the box above the text. Indent the text of the note.

Place the note either before or after the applicable step, depending on when the user needs the information.

Note example:

NOTE

A background check is performed at least once per day at the beginning of the operational day prior to assaying.

2.15 Figures and Tables

Figures and Tables may be used in the body of the procedure at the applicable step, or may be grouped in an attachment. The determination for use is based on complexity of the procedure or to increase user friendliness. Number and title a figure/table as follows:

- Use initial caps for the figure/table number and title.
- Left justify the figure/table number and title on a line or lines as needed above the top of the figure/table.
- Single space between the last line of the title and the top line of the figure/table.
- Separate the word "Figure/Table" and the title of the figure/table with a period at the end of the figure number followed by two spaces (e.g., Figure 1. Designated Parking Areas).

3.0 WRITING ACTION STEPS

NOTE

Action steps in CCP procedures use imperative sentences (commands) instead of declarative sentences (for example, "Manager, approve completed work order" or "Provide approved storage for classified documents").

3.1 Standard Action Steps

The basic element of an action step is an imperative sentence, a command to perform a specific action. An action step answers the question, "What is to be done?" Write each action step to direct the user to perform a single action.

Start the step with a singular present-tense action verb.

Describe the direct object of the verb.

Initially refer to instruments and components using both the equipment name and number. After the initial reference, write equipment names exactly as the equipment is labeled.

If the equipment is not labeled within the facility, use equipment nomenclature precisely as it appears in the documentation.

Complete the step with supportive information about the verb and the direct object. Supportive information includes further description of the object or the recipient of the object.

Write steps using words that are easily understood by the intended users.

Break one subsection into two or more subsections to simplify the step structure if necessary. Use main steps to allow users to quickly comprehend the purpose of the step. Use substeps to provide specific details for performance. Both main steps and substeps use the same basic format.

If someone other than the cognizant user is responsible for performing a step, identify the person (by position) to perform the step.

Include articles (a, an, the) when referring to a general item; omit articles when referring to specific items (for example, change "Open the door," to "Open door SB-9").

Present action steps, including associated action substeps and lists, with a minimum of interruption (for example, page breaks).

3.2 Writing Conditional Action Steps

Two types of conditional steps are generally needed in a procedure:

- A step where the action depends on an unexpected but possible condition (if clause).
- A step where the action depends on an expected condition (when clause).

Describe the condition first (**IF** or **WHEN** clause) and then the action to be taken. The **IF** or **WHEN** clause is followed by a comma. Conditional action steps that are not critical are written as follows:

4.1 If stock tank is full, close valve.

Conditional action steps that are critical are written with the action introduced with the word **THEN** on the next line emphasized. Critical action steps are written as follows:

4.1 **IF** RAD tank is full,
THEN close valve.

3.3 Writing Logic Steps

When multiple conditions are required to be evaluated, these are considered logic steps. The logic terms **AND** and **OR** are used in conjunction with a conditional step to indicate a choice needs to be made.

If two conditions are required, and both of these conditions must be met, place the logic term **AND** between the conditions. Begin a new line with **THEN** followed by the action.

If two conditions are involved, and one of the conditions must be met before the action is taken, place the logic term **OR** between the conditions. Begin a new line with **THEN** followed by the action.

If three or more conditions are described, use a list format as follows:

4.1 **IF** Rad tank meets TWO of the following conditions:

- 3/4 full
- Alarming
- Isolated

THEN perform, ONE of the following:

- Close Valve A
- Close Valve B
- Secure Pump PMP-1

Avoid using the logic term **AND** with the logic term **OR** on the same line of a conditional statement. Write the conditional statement using only one logic term on a line. Start a new line for each additional logic term used.

4.1 **IF** Rad tank is 3/4 full **AND** isolated,
OR alarming,
THEN open Valve A.

Use only **AND** and **OR** to join conditions that include both a subject and a predicate. If two subjects apply to the same predicate (e.g., "**IF** temperature and pressure are stable, ... ") or one subject takes two predicates (e.g., "**IF** level is stable or falling, ... ") use the unemphasized conjunctions and or rather than the emphasized logic terms.

Avoid using **NOT** if a single word can be used and the condition can be stated in a positive manner.

3.4 Non-sequential Action Steps

Identify that a series of steps may be performed non-sequentially by placing a note before the sequence of steps that can be performed non-sequentially, or bullets may also be used to indicate non-sequential steps.

3.5 Alternative Action Steps

Alternative action steps are used when it is beneficial for users to be provided with more than one option. It is important to ensure that only one alternative is performed.

Present alternative actions as items in a list within a single step.

Use the word "one" to introduce the list of alternatives (e.g., "Perform **ONE** of the following actions").

3.6 Continuous Action Steps

Continuous action steps are conditional steps where the conditions they describe must be monitored throughout a procedure or a portion of a procedure. For example, a user may need to monitor a gauge and take a specific action if the gauge, at any point during the procedure, indicates a reading above or below a specific level.

Place continuous action steps in the procedure at the point at which they first apply. Repeat the steps periodically, as appropriate, in the body of the procedure.

Format continuous steps as conditional steps and state the portion of the procedure during which they are applicable.

3.7 Repeated Action Steps

Repeated action steps are simple steps that must be performed more than once during the execution of a procedure.

If a step must be repeated an indefinite number of times to achieve an objective, specify that the step is to be repeated until the expected results are achieved.

If a large group of repetitive actions is required and becomes cumbersome, address the actions in steps that reference an attachment (an example of a large group of repetitive actions is a series of valve alignments).

Notify the performer when repeated action steps are to be discontinued.

3.8 Action Steps Containing Verifications

Verification of steps provides assurance that a required condition exists. If the condition does not exist, the user takes appropriate action to obtain the required condition before proceeding.

Specify the type of verification, who is to verify, how to verify, and when to verify the step.

3.9 Action Steps to Branch or Reference Elsewhere

Referencing and branching increase the potential for error, with attendant safety and administrative consequences. Therefore, branching and referencing are highly discouraged. Use referencing and branching only when it is necessary to direct the user to information that is vital to the performance of the activity and when it is not appropriate to incorporate that information into the base procedure.

Branching routes the procedure user to other subsections within the procedure or to other procedures when the user does not return to the original position.

Referencing routes the procedure user to other subsections within the procedure or to other procedures and then back to the original position in the base procedure.

Evaluate the following criteria to determine if referencing or branching is appropriate:

- Can steps be readily incorporated rather than referenced?

- Will branching and referencing reduce user comprehension and ease of use?
- Will users be directed to small isolated subsections, rather than whole procedures or attachments?
- Will branching and referencing cause users to bypass prerequisites that affect the section to which they are being directed?
- Will branching and referencing cause users to bypass precautions and limitations that affect the section to which they are being directed?

If the answer to all of the above questions is NO, referencing or branching may be appropriate. If referencing or branching is appropriate, use the following methods:

- Indicate a branch step by using the words "GO TO" as applicable.
- Specify the location where the user is to go. If the user is being sent to another procedure, identify the procedure number and title. If the user is being sent to another location in the base procedure, identify the specific section/step in the procedure.
- Indicate referencing, by using the terms "GO TO" and "RETURN TO" in the same step to indicate the reentry point into the base procedure.

Ensure that a reference or branch directs the user to all material needed as a prerequisite to the identified material. For example, ensure that the user does not bypass an applicable caution or prerequisite step.

Emphasize "GO TO" and "RETURN TO" in branching or referencing steps.

3.10 Action Steps with Acceptance Criteria

Acceptance criteria provides a basis for determining the success or failure of an activity. Acceptance criteria may be qualitative (specify a given event that does or does not occur) or quantitative (specify a value or value range).

Determine where specific acceptance criteria are to be presented in the procedure; either or both of the following methods can be used.

State the location of acceptance criteria, whether located at individual action steps (used when criteria are satisfied at the time of performance), or located in data sheets or other procedures. When acceptance criteria

are located in other procedures, link procedures together using referencing techniques if the information cannot be included in the procedure.

Provide a summary of the acceptance criteria in a table, or a list as an attachment.

Include instructions for notifications to be made or actions to be taken immediately by the user in the event that specified acceptance criteria are not met using the standard notification step stated earlier. Place these instructions or actions in the body of the procedure. Ensure that these actions are consistent with administrative instructions.

Use acceptance criteria that consist of nominal values, and allowable ranges.

4.0 SECTIONS

4.1 Purpose

Address the purpose of the procedure. The purpose provides a clear description why the document was written (e.g., to describe the goals to be achieved by performing the procedure).

4.1.1 Scope

The scope describes what activities or processes are included in the procedure. The scope also discusses the limitations of the procedure or what the procedure does not cover.

4.2 Requirements

One subsection of the Requirements Section defines reference documents. Other subsections define, as appropriate, specific terms used in the procedures (definitions), training requirements, equipments list, precautions and limitations, and prerequisite actions.

4.2.1 References

There are two types of reference documents:

- Baseline Documents
- Referenced Documents

Baseline Documents is a list of specific documents used to develop and maintain the procedure.

Referenced Documents is a list of documents called out in the body of the procedure.

Group Baseline Documents by originating organization (i.e., *Code of Federal Regulations* [CFR], DOE Orders) in the reference section, to allow easy location of materials.

4.2.2 Training Requirements

This subsection lists all special training required for personnel to perform the procedure.

4.2.3 Equipment List

This subsection lists all equipment to be used during the performance of a procedure that is not ordinary craft tools, including special software. The following is a guidance to be used when listing tools:

- Identify specific equipment necessary to perform a procedure.
- Specify alternative tools and equipment.
- If the procedure has a generic application, do not include instrument-specific information (e.g., serial number or calibration date). This information is included in application-specific procedures.
- Provide clear specifications for defining test equipment parameters applicable to the procedure. Specifications include ranges, accuracies, and compliance with calibration standards.
- Ensure that range and accuracy of measuring equipment is consistent with the expected values to be measured.

The Equipment List section may be divided into subsections listing the following:

- Measuring and Test Equipment - Calibrated tools and equipment required to perform or verify performance of the procedure.
- Special Test Equipment - Items not commonly used that are required for the procedure.

4.2.4 Precautions and Limitations

The precautions and limitations subsection delineates information that affects the entire procedure, or that occur at multiple points in the procedure. Failure to include precautions and limitations within the procedure can cause severe injury to, or the death of personnel, serious damage to equipment, and/or invalidation of the parameters required of the procedure.

Precautions alert procedure users to actions and conditions that represent potential hazards to personnel, possible damage to equipment, or establish abnormal conditions. Identify and address potential hazards such as the following:

- Radiation or contamination
- High temperature or high pressure fluids
- Hazardous substances
- Electrical shocks
- Excessive noise levels
- Confined space hazards
- Falls
- Moving equipment or parts of equipment
- Fire hazards

Limitations define boundaries that are not to be exceeded. Identify special qualification and training requirements as a limitation of performance of the procedure. Limitations may also state system or equipment capacities or conditions.

Do not present user actions in the Precautions and Limitations Section.

Avoid generic precautions that are part of a job description or inherent in the task.

4.2.5 Prerequisite Actions

The prerequisite actions subsection identifies actions that must be completed by the user and/or requirements that must be met before the user continues with the procedure.

4.2.6 Definitions

The definitions subsection list definitions of special terms used in the procedure.

4.3 Responsibilities

Identify specific responsibilities for personnel performing the procedure.

4.4 Procedure

The performance section contains the action steps that prescribe the principal tasks and sub-tasks.

Organize activities in the order of performance. Divide the Performance Section into subsections that logically group all related activities. Use titles for each subsection that reflect the activity rather than a generic title (e.g., Removing the Actuator rather than Actuator).

4.5 Records

Identify records generated by the procedure. Classify the records as lifetime, nonpermanent, or non-QA records as applicable.

4.6 Attachments

Provide attachments when the material and function of the procedure requires them. Attachments are part of the procedure. Examples of items that may be placed in an attachment are data sheets, tables, figures, graphs, and checklists.

Reference attachments within the text of the procedure.

- Include information in attachments that is more conveniently located outside the main body of a procedure.

If the form (report) is generated by software (e.g., NDA2000), the report generated will be labeled in the actual attachment as follows:

- Attachment 1 – QA Last Results Report (Example)

A picture (or example) of the form will be placed in the procedure.

When the form is generated by software (e.g., NDA2000), within the body of the procedure, call out the first use as in the following example:

Example: 1.1 Print the QA Last Results Report (see Attachment 1, QA Last Results Report for an example), **AND** print name, sign, and date the QA Last Results Report.

Then, as you refer to the form within the text of the procedure (after first callout), use the title (e.g., QA Last Results Report).

When the form is generated by software, use the title of the form as in the following example:

Example: 5.0 RECORDS

5.1 Records generated during the performance of this procedure are maintained as Quality Assurance (QA) records in accordance with CCP-QP-008, *CCP Records Management*. The records are the following:

5.1.1 QA/Lifetime

[A] QA Last Results Report(s)

[B] NDA Radioassay Data Sheet(s)

Completed forms based on forms that are labeled as examples in CCP documents must contain all the information in the example, preferably in the order listed in the example, and must contain header information identifying the document number, revision, title, and effective date so that the form is traceable back to the governing document on which it is based. Additional information may be included in forms that are designated as examples.

If the form is a fillable form (e.g., TP-001 forms), the word “example” will not be added to the attachment name. The actual form is created in the procedure so that it can be completed either by the user printing and completing by hand or electronically by accessing the posted form on the sftp site in the Forms Folder. The form is posted on the sftp site by Document Services.

In this case, within the body of the procedure, call out the first use as in the following example:

Example: 1.1 Enter the BDR number on Attachment 1, Independent Technical Reviewer Checklist.

Then as you refer to the form, within the text of the procedure (after first callout), use Attachment and # (e.g., Attachment 1). Refer to the fillable form as in the following example:

Example: 5.0 RECORDS

5.1 Records generated during the performance of this procedure are maintained as Quality Assurance (QA) records in accordance with CCP-QP-008, *CCP Records Management*. The records are the following:

5.1.1 QA/Lifetime

[A] Attachment 1 [Title]

[B] Attachment 2 [Title]

[C] Attachment 3 [Title]

[D] NDA Radioassay Data Sheet

4.7 Figures and Tables

Reference figures and tables within the text of the procedure. Call out the first use of the figure or table in the following example:

Example: 1.1 As a minimum, technical procedures will contain the sections shown in Table 1, Procedure Format.

Then as you refer to the figure/table, within the text of the procedure (after first callout), use Figure/Table and # (e.g., Table 1). Refer to the following example:

Example: 1.2 The format for configuration management (CM) procedures will contain, as a minimum, the sections shown in Table 1 (not necessarily in the order shown in Table 1, but the sections must be included somewhere in each document).

Appendix 1. Sample Procedure

CCP-TP-XXX

Revision X

**CCP
Title**

EFFECTIVE DATE: _____

PRINTED NAME

APPROVED FOR USE

RECORD OF REVISION

Revision Number	Date Approved	Description of Revision
0	mm/dd/yyyy	Initial issue.
1	mm/dd/yyyy	Revised to rewrite Section 4.1 due to changes in requirements.

SAMPLE

TABLE OF CONTENTS

1.0 PURPOSE 3
 1.1 Scope..... 3

2.0 REQUIREMENTS..... 3
 2.1 References 3
 2.2 Training Requirements..... 3
 2.3 Equipment List 3
 2.4 Precautions and Limitations 3
 2.5 Prerequisite Actions 3
 2.6 Definitions 4

3.0 RESPONSIBILITIES..... 4

4.0 PROCEDURE 4
 4.1 OCV Upper Assembly Removal..... 4
 4.2 ICV Lid Removal 6

5.0 RECORDS..... 8

LIST OF ATTACHMENTS

Attachment 1 – Sign-Off Sheet..... 9

1.0 PURPOSE

This procedure provides the required instructions for opening radiologically clean TRUPACT-IIs at the Waste Isolation Pilot Plant (WIPP).

1.1 Scope

This procedure applies to opening radiologically clean TRUPACT-IIs at the WIPP only.

2.0 REQUIREMENTS

2.1 References

Baseline Documents

- CCP-PO-001, *CCP Transuranic Waste Characterization Quality Assurance Project Plan*

Referenced Documents

- CCP-QP-002, *CCP Training and Qualification Plan*

2.2 Training Requirements

2.2.1 Personnel performing this procedure will be trained and qualified in accordance with CCP-QP-002, *CCP Training and Qualification Plan* prior to performing this procedure.

2.3 Equipment List

2.3.1 Crane Load Cell

2.4 Precautions and Limitations

2.4.1 Workers who will be working in a radiation area must have read and signed that they understand the applicable Radiological Work Permit (RWP).

2.5 Prerequisite Actions

2.5.1 Verify the Waste Handling Building Exhaust Filtration System is operating.

2.5.2 Verify that the TRUPACT-II is radiologically clean by reviewing receipt report.

2.6 Definitions

2.6.1 None

3.0 RESPONSIBILITIES

3.1 Nondestructive Assay (NDA) Operator

3.1.1 Performs routine startup, normal operations, and shutdown of the system.

3.1.2 Notifies the NDA Lead Operator (LO) of abnormal or nonconforming conditions.

4.0 PROCEDURE

4.1 Outer Containment Vessel (OCV) Upper Assembly Removal

4.1.1 Prepare the TRUPACT-II Outer Containment Vessel (OCV) Lid for removal by removing the following:

- Lift Pocket Covers
- Locking Ring Bolts (six)
- Outer Containment Assembly (OCA) Test Port Access Plug
- OCV Vent Port Access Plug
- OCV Vent Port Cover

4.1.2 Install the following in the OCV:

- Vent Port Tool
- T-Handles

4.1.3 Retrieve the Vent Port Plug into the Vent Port Tool.

4.1.4 **IF** the Locking Ring will **NOT** rotate, **THEN** perform the following:

- [A] Verify the Vacuum Valve is in OFF position.
- [B] Connect the Vacuum Line to the Vent Port Tool.
- [C] Start the Vent Hood Fan.
- [D] Start the Vacuum Pump.
- [E] Place the Vacuum Valve in VACUUM position.
- [F] Rotate the OCV Locking Ring to the UNLOCKED position.
- [G] Place the Vacuum Valve in OFF position.
- [H] Stop the Vacuum Pump.
- [I] Stop the Vent Hood Fan.
- [J] Disconnect the Vacuum Line from the Vent Port Tool.

- 4.1.5 **IF** the Locking Ring will rotate,
THEN rotate the Locking Ring to the UNLOCK position.
- 4.1.6 Remove the T-Handles from the OCV Locking Ring.
- 4.1.7 Break vacuum on the OCV.
- 4.1.8 Connect the Adjustable Center of Gravity Lift Fixture (ACGLF) to the OCV Lid.

WARNING

Personnel may be injured if the TRUPACT-II OCV Lid begins to swing due to excessive misalignment.

CAUTION

Exceeding a crane load cell indication of 8,000 pounds may damage the TRUPACT-II OCV Lid lift points.

NOTE

Force may be applied to either side of the OCV lid by rotating the ACGLF counterweights to help prevent binding.

- 4.1.9 Release the ACGLF.
- 4.1.10 Remove the Vent Port Tool.

4.2 Inner Containment Vessel (ICV) Lid Removal

4.2.1 Prepare the TRUPACT-II Inner Containment Vessel (ICV) Lid for removal by removing the following:

- Locking Ring bolts (three)
- ICV Vent Port Cover

4.2.2 Install the following in the ICV:

- Vent Port Tool
- T-Handles

- 4.2.3 Verify the Vacuum Valve is in OFF position.
- 4.2.4 Retrieve the Vent Port Inner Plug into the Vent Port Tool.
- 4.2.5 Connect the Vacuum Line to the Vent Port Tool.
- 4.2.6 Start the Vent Hood Fan.
- 4.2.7 Start the Vacuum Pump.
- 4.2.8 Place the Vacuum Valve in VACUUM position.
- 4.2.9 Rotate the ICV Locking Ring to the UNLOCKED position.
- 4.2.10 Place the Vacuum Valve in OFF position.
- 4.2.11 STOP the Vacuum Pump.
- 4.2.12 STOP the Vent Hood Fan.
- 4.2.13 Disconnect the Vacuum Line from the Vent Port Tool.
- 4.2.14 Perform the following:
- Break ICV vacuum
 - Remove Vent Port Tool
 - T-Handles

4.2.15 Connect the ACGLF to the ICV Lid.

CAUTION

Exceeding a crane load cell indication of 5000 pounds may damage the TRUPACT-II ICV Lid lift points.

NOTE

Force may be applied to either side of the ICV lid by rotating the ACGLF counterweights to help prevent binding.

4.2.16 Remove the ICV Lid.

4.2.17 Place the ICV Lid on the storage stand.

4.2.18 Release the ACGLF.

5.0 RECORDS

5.1 Records generated during the performance of this procedure are maintained as Quality Assurance (QA) records in accordance with CCP-QP-008, *CCP Records Management*. The records are the following:

5.1.1 QA Nonpermanent

[A] Attachment 1, Sign-Off Sheet

Attachment 1 – Sign-Off Sheet

Step No.	Action	Initial
4.1.7	Break vacuum on the OCV.	

Printed Name Signature Date Initials

SAMPLE

Attachment 2 – Verb Usage

This list is not all inclusive. It contains the verbs generally used by the CCP.

Actuate	To put into action or use. When possible, use "START."
Adjust	Alter (parts of a device) for proper functioning.
Align	Arrange components into a desired condition.
Assess	Make a judgment as to the status or extent of change.
Attempt	To make an effort to do.
Bleed	Cause to escape from a system or container in a regulated manner.
Block	To prohibit an automatic action or motion, to isolate a system.
Bypass	Circumvent some operational mode of a system or component.
Calculate	Perform a mathematical process to produce a value.
Calibrate	The set of operations which establish, under specified conditions, the relationship between values indicated by a measuring instrument or measuring system, and the corresponding standard or known values derived from the standard.
Call-up	Summon information.
Certify	To attest as being true or to represent as meeting a standard.
Charge	Add fluid, gas, or energy.
Check	Inspect for satisfactory condition, if condition is not satisfactory, report the condition to the immediate responsible management.
Close	Mechanically: to change the position of a mechanical device so that physical access of fluid or gas flow is prevented. Electrically: to position a circuit breaker or relay so that electrical current flow is permitted.
Collect	Cause the assembly of something in a fixed location or container.
Comply	Follow a requirement.
Confirm	Assure that an action or task has been performed/completed.

Attachment 2 – Verb Usage (Continued)

Connect	Fasten or join together.
Cool	Lower the temperature of equipment or an environment.
Creep	A very slow, usually continuous time-dependent movement.
Cycle	Cause repetition of an action or activity, change of a valve from one position to another, then back.
Decrease	DO NOT use. Use lower.
De-energize	To disconnect equipment from its electrical power supply.
Depressurize	DO NOT use. Use lower the pressure.
Dilute	Reduce in concentration.
Dispatch	Send by a predefined method.
Don	To put on.
Drain	Remove liquid from an enclosure or part of an enclosure to a predetermined level.
Drive	Move equipment to a prescribed position.
Emplace	To put into position.
Energize	To apply energy (electrical, pneumatic).
Ensure	Confirm that an activity or condition has occurred in conformance with specified requirements (by action if necessary).
Equalize	Make a value or parameter the same as that of another.
Evaluate	Assess a condition based on observation, experience, or external input.
Execute	Perform an instruction or step.
Feed	Add fluid or gas to a system or equipment.
Fill	Add fluid, gas, or a material to a system, equipment, or container to a prescribed point.
Ground	Provide an electrical path to a system at zero potential.

Attachment 2 – Verb Usage (Continued)

Hold	A continued action that maintains a device or a spring returned switch in a required position.
Increase	DO NOT use. Use raise.
Initiate	Begin or start an activity.
Inspect	Evaluate for comparison with a pre-defined limit or standard.
Isolate	Mechanically: to change the position of a valve so that physical access of fluid or gas flow is prevented. Electrically: to remove or open an electrical circuit breaker so that passage of electrical current is not permitted.
Jog	A momentary start/stop action of a motor (to check rotation).
Land	The re-connection of electrical leads temporarily disconnected for maintenance, tests, or calibration purposes.
Latch	To make fast.
Lift	To temporarily disconnect electrical leads for maintenance, tests, or calibration purposes.
Limit	Restrict or impose bounds.
Load	The amount of torque being supplied or the electrical current that a component is using.
Lock	Securely fasten.
Lower	To decrease (e.g., elevation, pressure, temperature, voltage).
Maintain	Continue an action or condition without interruption.
Notify	Inform a specified person.
Open	Mechanically: to change the position of a mechanical device (valve) so that physical access of fluid or gas flow is permitted. Electrically: to position an electrical circuit breaker so that electrical current flow is prevented.
Operate	To cause to function.

Attachment 2 – Verb Usage (Continued)

Overpack	To repackage a Waste Container into a larger package.
Override	To bypass a normal function and allow operation in a condition other than normal.
Pack	Fill with packing material; usually applies to lubricate and seal.
Perform	Carry out an action or series of procedure steps as written.
Position	To "place" a component in a specified condition.
Pressurize	DO NOT use. Use raise.
Press	Inward motion of a push button.
Rack-in	Physically connecting an electrical circuit breaker to its associated power source.
Rack-out	Physically disconnecting an electrical circuit breaker from its associated power source.
Rack-to-test	Physical placement of an electrical circuit breaker so that control functions are operable while the supply and load sides are disconnected.
Raise	To increase (e.g., elevation, pressure, temperature, voltage).
Recirculate	Cause repetitive motion of a fluid or gas in a system.
Reduce	DO NOT use. Use lower.
Regenerate	Restore towards original properties or capabilities.
Reset	Placement of an automatic system or component to its normal condition or pre-action state.
Retract	Withdraw or take back.
Sample	A representative portion taken for examination.
Secure	Take appropriate actions to remove from service or to prevent a return to service.
Set	Adjust as necessary to obtain a specified value (set Diesel Generator loading to 300 Kv).
Shut	DO NOT use. Use close.

Attachment 2 – Verb Usage (Continued)

Shut down	Terminate operation or remove from service.
Start	Initiate equipment operation or begin a process.
Stop	Discontinue.
Terminate	Form an end connection.
Throttle	Physical adjustment of a valve to obtain a specified position or flow rate.
Torque	The measurement of a turning or twisting force that produces tension.
Transfer	Movement of a fluid, gas, or electrical current from one source to another.
Trip	An automatic or manual operation which removes an electrical breaker or device from service.
Vent	Removal of a liquid or gas to allow system filling, draining, or equalization.
Verify	Check that the required condition exists. If the condition does not exist, take appropriate action to obtain the required condition before proceeding.

CCP-QP-016

Revision 19

CCP

Control of Measuring and Testing Equipment

EFFECTIVE DATE: 03/12/2014

Mike Ramirez

PRINTED NAME

APPROVED FOR USE

RECORD OF REVISION

Revision Number	Date Approved	Description of Revision
4	02/25/2002	Added requirements for M&TE items controlled under the e-QA® system. Added a new Section 4.9 for entering data into the e-QA® database.
5	05/14/2002	Made changes to 4.1.4 and 4.1.7. Updated references in 2.6.1, 4.1.1 and 4.8.1.
6	05/14/2003	Change to 3.3.3 and NOTE before 4.1.2.
7	08/05/2003	Revised to address shipment of M&TE from the generator sites directly to/from suppliers of calibration services (instead of being calibrated at the WIPP site). Revised in response to CAR-SRS-0002-03, to clarify M&TE related activities performed at the project office versus those performed at the generator sites.
8	11/18/2003	Revised to address that e-QA® system is being eliminated for use by the CCP Program. Deleted Section 4.9 from procedure.
9	03/14/2005	Revised to address the concerns of Surveillance Report SUR-SRS-0003-04 and Savannah River Site Audit Report 2004-AR-26-0005, Finding #2. Addressed CBFO comments.
10	03/09/2006	Revised to correct reference in Section 2.6 and added CCP Vendor Project Manager to Responsibilities Section.
11	09/26/2006	Revised Attachment 1 to require that 'CCP' be included as part of the unique calibration identifier in response to CAR-RHANL-001-06.
12	11/16/2006	Revised to implement the Waste Isolation Pilot Plant Hazardous Waste Facility Permit requirements resulting from the Section 311/Remote-Handled (RH) Permit Modification Request (PMR). This revision includes changing SPQAO to CCP QA and TS to Lead Operator. Other editorial changes are also included.
13	03/30/2007	Revised to clarify the unique identifiers and to remove nonconformance report (NCR) requirement for out-of-calibration equipment.

RECORD OF REVISION

Revision Number	Date Approved	Description of Revision
14	02/07/2008	Revised to address the assignment of responsibilities, disconnects between the Quality Credit Card process and Central Characterization Project (CCP)-driven requirements, and proper usage of "out-of-calibration" versus "out-of-tolerance" terminology in response to Corrective Action Report (CAR), CAR-CCP-0006-07.
15	05/18/2010	Revised to clarify responsibilities for providing calibration documentation to the measuring and test equipment (M&TE) Custodian.
16	01/05/2012	Revised to clarify the scope of Central Characterization Project's (CCP's) measuring and test equipment (M&TE) program and the responsibilities associated with Host site provided M&TE.
17	10/23/2012	Revised to clearly flow down items from the <i>Quality Assurance Program Document (QAPD)</i> as described in MA-CCP-0003-12, to incorporate Corrective Action Plan (CAP) items from CAR-LANL-0003-12 and to improve clarity.
18	06/24/2013	Revised to clarify actions of each entity defined in this procedure. Incorporate Corrective Action Plan (CAP) items from CAR-CCP-001-13-0. Added Section 4.9 for process of shipping M&TE to calibration lab.
19	03/12/2014	Revised Section 4 to clarify what each of the sections in Integrated Data Center (IDC) measuring and test equipment (M&TE) Module is used for. Revised all Attachments to make more user friendly.

TABLE OF CONTENTS

1.0 PURPOSE 5
1.1 Scope..... 5

2.0 REQUIREMENTS..... 6
2.1 References 6
2.2 Training Requirements..... 6

3.0 RESPONSIBILITIES..... 7
3.1 CCP M&TE User..... 7
3.2 CCP M&TE Custodian 7
3.3 Cognizant Engineer 7
3.4 CCP Vendor Project Manager (VPM) or Designee 7
3.5 Host Site 8

4.0 PROCEDURE FOR CCP OWNED M&TE 9
4.1 Procurement of M&TE 9
4.2 M&TE Entry into IDC Database 10
4.3 Controlling CCP M&TE 12
4.4 Determining and Adjusting Calibration Parameters 13
4.5 Calibration of M&TE..... 15
4.6 Use of M&TE 16
4.7 Out-of-Tolerance, Defective, or Lost M&TE 17
4.8 Closing/Exit Calibrations 18
4.9 Shipping M&TE to Calibration Lab 19
4.10 Receiving M&TE at SWB 20
4.11 Procedure for Host site M&TE 21

5.0 RECORDS..... 23

LIST OF ATTACHMENTS

Attachment 1 – Identification Labels and Calibration Tags..... 24
Attachment 2 – Glossary 26
Attachment 3 – Out-of-Tolerance (OOT)/Defective or Lost Evaluation..... 29
Attachment 4 – Calibration Interval/Tolerance Adjustment Evaluation 30
Attachment 5 – Exemption/Temporary Extension Evaluation..... 31
Attachment 6 – Closing/Exit Calibration 32

1.0 PURPOSE

This procedure implements the requirements and processes for properly controlling and maintaining measuring and test equipment (M&TE).

1.1 Scope

This procedure describes the processes to ensure equipment used for measuring and testing are properly controlled, calibrated, and maintained.

This procedure is applicable to M&TE that is used by the Central Characterization Program (CCP). This includes M&TE procured and controlled by CCP as well as Host site provided M&TE that is controlled under the Host site M&TE program.

2.0 REQUIREMENTS

2.1 References

Baseline Documents

- CCP-PO-001, *CCP Transuranic Waste Characterization Quality Assurance Project Plan*
- CCP-PO-002, *CCP Transuranic Waste Certification Plan*
- WP 13-1 *Nuclear Waste Partnership LLC, Quality Assurance Program Description*

Referenced Documents

- CCP-QP-008, *CCP Records Management*
- WP 15-PC3044, *Quality Credit Card Purchases*
- WP 15-PM3525, *Preparation and Processing of Shipping Authorizations*
- EA 15-PM3525-1-0, *Shipping Authorization*

2.2 Training Requirements

2.2.1 None.

3.0 RESPONSIBILITIES

3.1 CCP M&TE User

- 3.1.1 Verifies M&TE is on the current approved M&TE list on secure file transfer protocol (SFTP) web site (searchable by equipment number) and checks current cal sticker with information on approved list for accuracy.
- 3.1.2 Handles M&TE in a manner that will not adversely affect its accuracy to ensure M&TE integrity.
- 3.1.3 Promptly reports any M&TE conditions that could invalidate measurements to the Vendor Project Manager (VPM)/designee.
- 3.1.4 Coordinates equipment location, recall, and calibration with the VPM/Designee.

3.2 CCP M&TE Custodian

- 3.2.1 Maintains a database that includes a recall system to track and control M&TE needed to support CCP characterization and packaging activities.
- 3.2.2 Responsible for overall CCP M&TE program administration.
- 3.2.3 Submit all records identified in Section 5.1.1 [B] and [C] to CCP Records in accordance with CCP-QP-008, *CCP Records Management*.

3.3 Cognizant Engineer

- 3.3.1 Provides technical support of M&TE program including recommendations on calibration intervals, set-points, tolerances, exemptions, and extensions.

3.4 CCP Vendor Project Manager (VPM) or Designee

- 3.4.1 Primary interface with Host site for CCP use of Host site provided M&TE.
- 3.4.2 Interfaces with the M&TE Custodian for calibration and maintenance activities, forwards copies of Host site provided calibration records to the M&TE Custodian, and ensures M&TE database reflects M&TE used.

3.4.3 Ensures M&TE is used for CCP operations in compliance with this procedure and other applicable requirements, including:

[A] Only M&TE approved for CCP use is used for CCP operations.

[B] Host site M&TE documentation is transmitted to the CCP M&TE Custodian.

3.4.4 Performs and documents M&TE evaluations as required by this procedure.

3.5 Host Site

3.5.1 See the applicable Host site Interface Agreement (they provide documents required by the interface agreement and this procedure).

4.0 PROCEDURE FOR CCP OWNED M&TE

NOTE

Section 4.0 pertains to CCP controlled M&TE. Section 4.11.2 applies to Host site owned M&TE used in CCP's program. Sections in this procedure may be performed in any order as necessary.

4.1 Procurement of M&TE

VPM or Designee

NOTE

If equipment is not procured as QL1 or equivalent, the M&TE will need to be calibrated before use.

4.1.1 Initiate request for needed equipment, **AND** procure the equipment in accordance with applicable procedures. The procurement request should address the following:

- [A] The required function ranges and tolerance in the procurement specifications.
- [B] The appropriate documentation including operation and maintenance manuals.
- [C] Adequate provisions for packaging, handling, storage and shipping requirements.

CCP M&TE Custodian

NOTE

Identification (ID) numbers are serialized and not duplicated or reissued. They are attached to equipment using an appropriate label. References to equipment are typically by means of these ID numbers.

4.1.2 Inspect newly procured M&TE to verify correct serial number and equipment ID number, as applicable.

4.1.3 Tag, segregate, or otherwise control newly-procured M&TE to prevent its use until it is calibrated.

4.1.4 Ensure that a unique M&TE ID number is assigned by checking Integrated Data Center (IDC) for that equipment number (see Section 4.3 for Labeling).

4.2 M&TE Entry into IDC Database

NOTE

The Note section in the IDC M&TE Module can be used to describe abnormal events not covered under this procedure, (i.e., M&TE listed as disposed of but later is recalibrated and put back in service).

4.2.1 To enter new calibration dates complete the following:

- [A] Verify new M&TE has an ID number assigned and an M&TE ID label.
- [B] Log into M&TE database.
- [C] Click on M&TE Edit.
- [D] Type in equipment ID number in “Search Equipment ID” field.
- [E] **IF** equipment ID does not come up, **THEN GO TO** Section 4.2.5.
- [F] Click on “Edit Cal Data” button.
- [G] To enter new calibration dates click on the “+” button.
- [H] Enter calibration date, expiration date, vendor, as found condition, and as left condition in appropriate fields.
- [I] Click the “Update” button.
- [J] Click the “Close” button.
- [K] Click the “Update” button below the “Comment” field on main page to update the record.

4.2.2 At a minimum, the following data for all M&TE is required in the database:

- [A] M&TE ID number
- [B] Description
- [C] Cal interval
- [D] Cal Date

- 4.2.3 An independent verification of data entry in IDC shall be performed by a qualified M&TE Custodian prior to filing records.
- 4.2.4 IDC maintains a recall system to notify users when due for calibration.
- [A] Equipment shall also be recalled for calibration or other disposition if:
- [A.1] It has exceeded its calibration interval.
- [A.2] It has broken calibration seals.
- [A.3] It has been repaired, modified, or had any components replaced.
- [A.4] It is suspected to be malfunctioning because of mishandling, misuse, or unusual results.

NOTE

This notification should be 60 days in advance for items that must be sent off site for calibration and upon calibration expiration.

- [B] IDC notifies VPM or Designee and Quality Assurance (QA) upon expiration of M&TE calibration for recall using the recall notification e-mails.

4.2.5 For entering new M&TE into IDC perform the following:

- [A] On the main M&TE Edit screen fill in all of the white boxes.
- [B] Before clicking the insert button, make sure all of the boxes with white background are filled out (including the ID number).
- [C] Click insert.
- [D] If the M&TE is owned by CCP, open the Equipment ID Checkout tab to get the new XC0XXX number.
- [E] Click on "Get Next ID."
- [F] Use the XC0XXX number it generates as the "Equipment ID Number."

[G] **GO TO** Section 4.2.1 and complete the new calibration information for new M&TE.

4.3 Controlling CCP M&TE

NOTE

M&TE will be transported, stored, and calibrated in an environment that will not adversely affect its accuracy. When practical, M&TE is shipped directly from the generator site to the calibrating agency and then returned to the generator site. Returned instruments are checked by a person designated by the VPM or project manager.

NOTE

M&TE labeling (or verification of labeling) can be done either by VPM or Designee at generator site for equipment owned/used by generator site or by M&TE Custodian for equipment handled through Skeen-Whitlock Building (SWB).

CCP M&TE Custodian or VPM/Designee

4.3.1 If practical, ensure the M&TE is labeled with the unique ID number assigned in Section 4.1 as indicated in Attachment 1, Identification Labels and Calibration Tags.

4.3.2 **IF** labeling or tagging is not practical,
THEN:

[A] Determine an acceptable means of ensuring control of M&TE.

[B] Document any alternative control methods that are established.

[C] File documentation of control methods with the equipment records per CCP-QP-008.

4.3.3 Calibrate M&TE in accordance with Section 4.5.

4.3.4 Inspect M&TE received from calibration to verify correct serial number and equipment ID number, as applicable.

4.3.5 Tag, segregate, or otherwise control damaged, suspect, out-of-tolerance (OOT), and out-of-calibration M&TE to prevent use until the condition has been resolved. If an evaluation of previous measurements is needed (for an OOT or other condition), perform in accordance with Section 4.7.

4.3.6 Store M&TE in an environment that will not adversely affect its accuracy to ensure M&TE integrity.

4.4 Determining and Adjusting Calibration Parameters

NOTE

Manufacturer's recommended calibration intervals or standardized CCP calibration intervals are normally used, as are manufacturer's recommended ranges and tolerances. The calibration intervals are recorded in the M&TE database.

Calibration exemptions are based on what the item is used for.

Calibration and control measures are not applied to rulers, tape measures, levels, and other such devices, if normal commercial equipment provides adequate accuracy.

4.4.1 Establish and maintain the calibration interval to ensure acceptable reliability. The calibration interval should be set so the M&TE is expected to remain in tolerance throughout the interval, as applicable.

4.4.2 Consider any or all of the following:

- [A] Calibration range, tolerance, and job requirements.
- [B] Review of the manufacturer's tolerance, wear allowance, and recommended calibration interval.
- [C] Comparison of calibration intervals for similar instruments or M&TE.
- [D] Consultation with calibration organization for historical data on similar instruments.
- [E] Intended use and frequency of the instrument.
- [F] Environment in which the device will be subject.
- [G] Results of previous calibration.

- 4.4.3 To adjust calibration parameters initiate and process Attachment 4, Calibration Interval/Tolerance Adjustment Evaluation or Attachment 5, Exemption/Temporary Extension Evaluation, as applicable to document changes to calibration parameters.

NOTE

The reliability target for CCP M&TE is a minimum of 85 percent. Data will be collected and evaluated to aid in adjustment to calibration intervals, decisions on retirement of equipment, and the need for additional equipment. The analysis shall consider the as-found calibration data.

NOTE

When justified, M&TE assigned a periodic calibration interval may have its due date extended an additional 25 percent of the assigned interval. The M&TE that has had its calibration interval temporarily extended will not be used after the extension expires until it is recalibrated. If the reason for the extension becomes no longer valid, it will also be removed from service.

- 4.4.4 Ensure the follow-up actions are completed, as applicable:

- [A] M&TE calibration tag (and/or limited calibration tag) reflects the adjusted parameter.
- [B] Procurement documents reflect the adjusted parameter.
- [C] Submit Attachment 4 or 5 to M&TE Custodian.

CCP M&TE Custodian

- 4.4.5 Update IDC with submitted information.

- 4.4.6 Submit the completed Attachment 4 or 5 to CCP records in accordance with CCP-QP-008.

4.5 Calibration of M&TE

NOTE

VPM/Designee will coordinate with designated calibration lab for all user site owned M&TE for all calibration services.

VPM or Designee

- 4.5.1 Coordinate the calibration activities with the M&TE Custodian for CCP owned M&TE.

CCP M&TE Custodian

- 4.5.2 Procure calibration services from approved calibration suppliers following WP 15-PC3044, *Quality Credit Card Purchases*, or send to a user site calibration lab (i.e., INL Cal Lab) using a Shipping Authorization. Specify in the procurement documentation that calibration standards are traceable to National Institute of Standards and Technology (NIST) **OR** if nationally recognized standards do not exist, the basis for calibration is documented **AND** maintain records documenting that established M&TE schedules and procedures have been followed. These records shall include an individual record of calibration, or other means of control, providing the following:

- [A] A description or identification of the item

NOTE

Calibration interval is defined as the delta (in days or months) between the actual date the calibration was performed and the next expiration date as documented on the calibration records for the applicable piece of M&TE. This cal interval can be set at a lesser rate as applicable to limitations in IDC. The cal interval is being tracked by IDC.

- [B] Calibration interval or Calibration Expiration Date
- [C] Date calibrated
- [D] Identification of the calibration source
- [E] Calibration results (data and status)
- [F] Calibration action taken (e.g. adjusted, repaired, new value assigned, derated)

[G] Evaluation and corrective action taken in response to out of calibration or out-of-tolerance conditions

4.5.3 Verify Certificates of Calibration comply with procurement requirements and are complete.

4.5.4 Inspect all CCP owned M&TE received from calibration at SWB and verify:

[A] Correct serial number as applicable

[B] Equipment ID label with correct number

[C] Correct calibration tag – prepare and apply a calibration tag as needed

[D] If found OOT, go to Section 4.7

4.5.5 Update M&TE Database following Section 4.2.

4.5.6 Submit Certificates of Calibration for M&TE to records in accordance with CCP-QP-008.

4.6 Use of M&TE

CCP M&TE User

NOTE

While M&TE is in use, the user will be responsible for maintaining the M&TE in a manner that will not adversely affect its accuracy. Definitions for “in use” and “storage” are included in Attachment 2, Glossary.

4.6.1 Handle, store, and transport M&TE in a manner that will not adversely affect its accuracy (e.g., give due consideration to temperature, humidity, lighting, vibration, dust control, cleanliness, electromagnetic interference, and any other factors affecting the results of measurements).

4.6.2 Prior to use, confirm M&TE for the following:

[A] M&TE is on the Approved M&TE List and information on tag matches list, as applicable,

[B] Calibration tags are not expired,

[C] Calibration seals are intact, if applicable,

[D] M&TE shows no evidence of mishandling, misuse, or unusual results.

4.6.3 Notify the VPM/Designee of any exceptions identified in step 4.6.2.

4.6.4 Notify the VPM/Designee when M&TE is transferred to a different location.

4.6.5 Coordinate equipment recall and calibration with the VPM/Designee.

VPM or Designee

4.6.6 Notify M&TE Custodian of any conditions found above.

4.6.7 Notify M&TE Custodian if M&TE is transferred to a different location.

4.6.8 Tag, segregate or otherwise control M&TE with expired calibration to prevent use.

4.6.9 Coordinate with site calibration lab to calibrate any M&TE that is user site owned, as applicable.

4.6.10 Coordinate with M&TE Custodian to calibrate any CCP owned M&TE, as applicable.

4.7 Out-of-Tolerance, Defective, or Lost M&TE

M&TE User

4.7.1 **IF** M&TE is identified as lost, OOT, or defective, **THEN** notify the VPM/designee.

VPM or Designee

4.7.2 **IF** notified M&TE is lost, OOT, or defective, **THEN** notify M&TE Custodian, and QA.

4.7.3 **IF** the M&TE is lost, OOT, or defective, **THEN** initiate an evaluation of measurements made by the M&TE since its last calibration. Document results using site generated evaluation documentation or document results on Attachment 3, Out-of-Tolerance (OOT)/Defective or Lost Evaluation.

NOTE

An evaluation of the impact of OOT M&TE includes finding out if M&TE was used since the last calibration, when it was used, what it was used on and if the OOT condition affected the operations it was used on. If it did affect the operations it was used on, list how many items it did affect.

4.7.4 Submit site generated evaluation documentation or Attachment 3 to M&TE Custodian.

4.7.5 Initiate appropriate action based on the results of the evaluation.

4.7.6 Arrange for disposition of the M&TE according to recommendation and further technical evaluation, including Nonconformance Report (NCR) disposition.

CCP M&TE Custodian

4.7.7 Enter information needed from site generated evaluation documentation or Attachment 3 into IDC (M&TE will not be placed in service until documentation is received from VPM or Designee).

4.7.8 Submit site generated evaluation documentation or Attachment 3 to Records in accordance with CCP-QP-008.

4.8 Closing/Exit Calibrations

NOTE

If CCP pulls out from a site before the exit calibrations can be made, an e-mail from the VPM is acceptable as a Closing/Exit calibration notification.

VPM/Designee

4.8.1 When notified that CCP has completed work at a site and is exiting the site, arrange for a closing or exit calibration/evaluation of all CCP owned M&TE.

4.8.2 Document results on Attachment 6, Closing/Exit Calibration.

4.8.3 Tag, segregate, or otherwise control the M&TE to prevent use.

4.8.4 Submit Attachment 6 to the CCP M&TE Custodian, as applicable.

4.8.5 **IF** results of calibration/evaluation indicate M&TE OOT, **THEN** initiate an evaluation in accordance with Section 4.7.

4.8.6 **IF** an exit calibration was performed,
THEN arrange for the M&TE to be excessed.

4.8.7 **IF** a closing calibration was performed,
THEN remove the M&TE from service.

CCP M&TE Custodian

4.8.8 **IF** notified by VPM that M&TE is being taken out of service,
THEN instruct VPM to complete steps 4.8.1 through 4.8.7 above.

4.8.9 Update the M&TE database.

4.8.10 **IF** M&TE is CCP owned,
THEN arrange for M&TE to be shipped back to SWB, as applicable
after evaluation has been completed by VPM following applicable
steps above.

4.8.11 Arrange for CCP owned M&TE to be excessed or disposed of, as
applicable.

4.8.12 Submit Attachment 6 to records in accordance with
CCP-QP-008.

4.9 Shipping M&TE to Calibration Lab

4.9.1 Follow Waste Isolation Pilot Plant (WIPP) procedure
WP 15-PC3044, *Quality Credit Card Purchases* for coordinating
with a calibration lab to get M&TE (re)calibrated including filling out
the Inspection Plan from Q-Card Database, does not apply to user
site cal labs.

4.9.2 Fill out Attachment 1 to EA 15-PM3525-1-0, *Shipping Authorization*
following requirements in WP 15-PM3525, *Preparation and*
Processing of Shipping Authorizations for each vendor being used.

4.9.3 Fill out Attachment 1, Quality Credit Card Purchase Log in
WP 15-PC3044.

4.9.4 Get management approval for calibration services (can be done by
e-mail or by form).

4.9.5 Print a copy of the purchasing requirements for all vendors.

4.9.6 Print a copy of line item spreadsheet for all M&TE being shipped
from IDC.

- 4.9.7 Print a copy of the approved Inspection Plan for Q-Card database.
 - 4.9.8 Scan all signed documents prior to making shipment.
 - 4.9.9 Box all M&TE into shipping boxes (use separate boxes for different vendors) as appropriate.
 - 4.9.10 Record which boxes contain M&TE on Shipping Authorization.
 - 4.9.11 Include in each box the original Inspection Plan with initials and date (each item is assigned its own inspection plan), line item spreadsheet from IDC and the requirements sheet for all vendors, does not apply to user site cal labs.
 - 4.9.12 Tape all boxes closed and weigh them.
 - 4.9.13 Record the weight of each box onto Shipping Authorization.
 - 4.9.14 Turn original Shipping Authorization into United States Department of Energy (DOE) Mailroom and coordinate the shipment of the boxed M&TE with mailroom.
 - 4.9.15 File all procurement records for calibration services together for each shipment and submit to Records in accordance with CCP-QP-008.
- 4.10 Receiving M&TE at SWB
- 4.10.1 Follow receipt requirements listed in "Receipt of Goods" in WP 15-PC3044.
 - 4.10.2 Inspect each M&TE for ID tag that is intact and readable and for calibration tag being intact, readable and updated date.
 - 4.10.3 Once all requirements in WP 15-PC3044 for Receipt of Goods is complete, contact mobile loading unit (MLU) contact for pick up of M&TE, or arrange for the M&TE to be shipped back to user site.

4.11 Procedure for Host site M&TE

NOTE

Labeling of Host site provided M&TE will be in accordance with the Host site requirements and defined labels. The steps provided in Section 4.9 define how CCP ensures compliance of Host site M&TE used in the CCP program.

4.11.1 Procurement of Host site M&TE

- [A] Performed by the Host site.

4.11.2 Host Site M&TE in the CCP M&TE Database

M&TE User

- [A] Provide M&TE records, including calibration records to the CCP VPM/Designee.

VPM Designee

- [B] When additional Host site M&TE is requested for use, ensure it is on the CCP Approved M&TE List. Where Certificates of Calibration are not immediately available, verify a current calibration tag is available on the M&TE Item and send an e-mail with applicable calibration information from the tag to the M&TE Custodian.

CCP M&TE Custodian

- [C] Enter updated information in IDC following Section 4.2 and update the Approved M&TE List online.

VPM or Designee

- [D] Obtain Certificates of Calibration from Host site for all M&TE used in CCP operations and transmit them to M&TE Custodian.
- [E] For M&TE calibrations performed by work package, verify the M&TE has a current calibration sticker and transmit the calibration record to the M&TE Custodian. If Certificates of Calibration is in review, provide written notification to M&TE Custodian with M&TE ID number, Calibration Date, and Calibration Due Date. When Certificates of Calibration is available, transmit to M&TE Custodian.

CCP M&TE Custodian

- [F] Update M&TE Database with new M&TE calibration dates following Section 4.2 and update the Approved M&TE List.
- [G] Submit Certificates of Calibration to CCP records in accordance with CCP-QP-008.

NOTE

Host site provided equipment that has been entered into the M&TE database is included in the CCP recall system for notification that M&TE calibrations are coming due (60 days prior and upon calibration expiration).

- [H] Recall actions are the responsibility of the Host site.

4.11.3 Control of Host site M&TE used in the CCP Program

VPM or Designee

- [A] Verify Host site M&TE is adequately labeled with a unique Host site provided ID number.
- [B] Coordinate monthly with the M&TE Custodian to verify the CCP M&TE database is updated to reflect the current records of calibration.
- [C] Notify M&TE Custodian of any conditions that could merit recall of M&TE.
- [D] Notify the M&TE Custodian when M&TE is transferred to a different location.
- [E] Coordinate equipment recall and calibration with the Host site.

CCP M&TE Custodian

- [F] Enter Host site ID number in M&TE database along with calibration data per Section 4.2.
- [G] Notify the Host site of any conditions that could merit recall.

5.0 RECORDS

5.1 Records generated during the performance of this procedure are maintained as QA records in accordance with CCP-QP-008. The records are the following:

5.1.1 QA/Nonpermanent

- [A] M&TE Database
 - [A.1] CCP Approved M&TE List
 - [A.2] Calibration Recall System
- [B] Records of Calibration
 - [B.1] Certificates of Calibration
 - [B.2] Attachment 3 – Out-of-Tolerance (OOT) Evaluation/Defective or Lost Evaluation or site generated evaluation, as applicable.
 - [B.3] Attachment 4 – Calibration Interval/Tolerance Adjustment Evaluation
 - [B.4] Attachment 5 – Exemption/Temporary Extension Evaluation
 - [B.5] Attachment 6 – Closing/Exit Calibration
 - [B.6] E-mails from Host site documenting verification of current M&TE calibration and e-mails authorizing use of the M&TE for CCP processes (as applicable).
- [C] Procurement Documentation
 - [C.1] EA15-PM3525-1-0, Preparation and Processing of Shipping Authorizations (generated by WP-15-PM3525)
 - [C.2] Quality Credit Card Purchase Log (generated by WP 15-PC3044).

Attachment 1 – Identification Labels and Calibration Tags

This attachment describes the labels and tags used to indicate the status of M&TE.

M&TE Identification Label

The M&TE identification label bears a unique ID number that may be alpha numeric or any combination of numbers or symbols as long as it is unique to that piece of equipment. CCP unique ID numbers, typically start with an XC (e.g., XC0410). However, equipment with both CCP and Host site ID numbers are used for CCP operations.

Calibration Tag

A calibration tag that identifies the calibration status shall include, as a minimum, a unique ID number for the equipment, and next calibration due date. CCP ID numbers will be the same on the M&TE Identification Label as described above and on the Calibration Tag.

Limited Calibration Tag

When all ranges and/or functions of an item calibrated by CCP have not (or cannot) be calibrated, a Limited Calibration Tag will be used. The limitations will be noted on the item's record of calibration and may be included as part of the calibration tag or on a separate tag applied in addition to the calibration tag. If the limitation/restrictions are too lengthy to include on the tag, the tag will direct the user to see the record of calibration which will be required to be retained with the item at all times.

Out of Calibration Tag

A tag that identifies a piece of M&TE as being overdue for calibration or suspended, suspected to be, or actually out-of-calibration. The label will include the date when the label was affixed and the name (initial or stamp) of the individual affixing the label.

Below are examples of calibration, limited calibration, and out-of-calibration tags that may be used to label CCP M&TE.

Attachment 1 – Identification Labels and Calibration Tags (Continued)

CALIBRATION*

CALIBRATION	
I.D. No.	_____
By _____	Date _____
Due	_____

LIMITED CALIBRATION*

LIMITED CALIBRATION	

By _____	Date _____

DO NOT USE, OUT OF CALIBRATION*

OUT OF CALIBRATION	
By _____	Date _____
DO NOT USE	

*Sample of tag and may not reflect the color of tag the calibration vendor uses.

Attachment 2 – Glossary

Accuracy – Measure of the degree by which the actual output of a device approximates the output of an ideal device nominally performing the same function.

As-found – Measurements made during calibration before any adjustments are made that could affect the accuracy and acceptability of the data collected with the M&TE since its last calibration.

As-left – Final measurements made during calibration, after any required adjustments to the M&TE being calibrated have been made. These data may be the same as "as-found" when no adjustments are required.

Calibration – Set of operations that establish, under specified conditions, the relationship between values indicated by a measuring instrument or measuring systems, and the corresponding standard, or known values derived from the standard.

Calibration interval – The delta (in days or months) between the actual date the calibration was performed and the next expiration date as documented on the calibration records for the applicable piece of M&TE.

Calibration organization/approved supplier – Ensures proper calibration and repair of M&TE. Performs calibration/work to physical and electrical standards traceable to NIST, or nationally recognized physical constants, necessary to perform required calibration services. Ensures the performance of field calibration services traceable to NIST upon request. External organizations providing calibration services must be on the Nuclear Waste Partnership (NWP) Qualified Suppliers List (QSL). The CCP QSL can include suppliers previously qualified by mobile vendors or generator sites.

Closing calibration – A calibration prior to removing M&TE from service with the intent of maintaining equipment as a spare.

Exit calibration – A calibration prior to removing M&TE from service with the intent to excess.

In use – M&TE being used while CCP operators are present.

Attachment 2 – Glossary (Continued)

Measuring and test equipment (M&TE) – Devices or systems used to calibrate, measure, gauge, test, inspect, or control to acquire research, development, test, or operational data or to determine compliance with design, specifications, or other technical requirements. M&TE is normally used when a precision measurement with known tolerance and calibration traceability to NIST or other recognized standards is required.

M&TE history – Data that provides a calibration reliability profile for a piece of M&TE. Data may include as-found values for calibration cycles, any notes on repair, adjustments, restriction on use, next calibration due date, and other appropriate data.

M&TE usage history – Collection of data consisting of M&TE unique ID number, date M&TE was used, what M&TE was used on (e.g., tag, part number), and work control document (e.g., work packages, engineering maintenance standards, procedures, etc.).

National Institute of Standards and Technology (NIST) – U.S. Government organization that has responsibility for nationally recognized M&TE standards (formerly National Bureau of Standards).

Nondata M&TE – Portable test equipment used for preliminary checks, troubleshooting, or other nonprecision measurements where the data obtained will not be used to determine acceptability or verify conformance to established criteria.

Notice of deficiency – A notification that the equipment is lost, OOT, or defective.

Out-of-calibration – A condition in which the calibration for M&TE has expired or is otherwise indeterminate.

Out-of-tolerance (OOT) – A condition in which the readings, results, or function of M&TE are beyond the limits of permissible error.

Precision – The closeness of agreement between randomly selected individual measurements or test results under specified conditions. Precision can be viewed as repeatability.

Record of calibration – document that demonstrates the M&TE identified has been calibrated, using approved procedures, by comparisons to a known standard traceable to the NIST or other nationally accepted standard for those disciplines where no NIST standard exists.

Attachment 2 – Glossary (Continued)

Reference standard – Standards (that is, primary, secondary, and working standards, where appropriate) used in a calibration program. These standards establish the basic accuracy limits for that program.

Reverse traceability – The ability to determine what work or equipment a piece of M&TE was used on, for purposes of impact analysis in response to a notice of deficiency.

Storage – M&TE will be stored at the end of each work shift or if CCP operators are not present. M&TE must be stored in an environment that will not adversely affect its accuracy (i.e., toolbox/storage cabinet).

Tolerance – The allowable deviation from a specified or true value.

Traceability – The ability to demonstrate, by means of recorded identification, a valid relationship between M&TE and nationally recognized standards (such as NIST), industry recognized standards, or accepted values of national constants.

Attachment 3 – Out-of-Tolerance (OOT)/Defective or Lost Evaluation

1. M&TE ID Number:	2. Calibration Date:	3. Page ____ of ____
4. M&TE item, description:		
5. M&TE manufacturer and model number:		
6. CCP location (Site ID), process and operations the M&TE item is used for:		
7. Was M&TE found OOT, broken, defective or lost (explain)?		
8. Evaluation of M&TE: <input type="checkbox"/> WAS used in OOT condition <input type="checkbox"/> WAS NOT used in OOT condition (Explain)		
9. Based on data found, was the operating range violated? If YES, fill out NCR (Explain what range was violated).		
10. Associated NCR number, (if Applicable):		
11. Evaluator (Date indicates that evaluation was completed):		
Evaluator Print Name/Sign _____		Date _____

Attachment 4 – Calibration Interval/Tolerance Adjustment Evaluation

1. M&TE ID Number:	2. Calibration Date:	3. Page ____ of ____
4. M&TE item description:		
5. M&TE manufacturer and model number:		
6. CCP location (Site ID), process and operations the M&TE is used for?		
7. Calibration parameter being evaluated: Interval <input type="checkbox"/> Tolerance <input type="checkbox"/> Range <input type="checkbox"/>		
8. What is the current calibration interval, tolerance or range for the M&TE item being adjusted?		
9. Range (or tolerance) required for CCP process and operations M&TE item is being used for?		
10. Basis for changing M&TE calibration interval, tolerance, or range?		
11. Recommended change to MT&E calibration interval, tolerance of range?		
<div style="display: flex; justify-content: space-between; margin-top: 20px;"> _____ _____ </div> <div style="display: flex; justify-content: space-between; margin-top: 5px;"> Cognizant Engineer Print Name/Sign Date </div>		
12. CCP M&TE Custodian disposition of change? Accept <input type="checkbox"/> Reject <input type="checkbox"/>		
13. Follow-up Actions to Implement the Change: <input type="checkbox"/> Calibration Interval: Update IDC, Revise Calibration Procurement Documents, Revise Operations Procedures (if Required) <input type="checkbox"/> Calibration Tolerance: Add "COMMENT" In IDC, Revise Calibration Procurement Documents, Revise Ops Procedure (if Required) <input type="checkbox"/> Calibration Range: Apply "LIMITED CALIBRATION" Tag, Add "COMMENT" In IDC, , Revise Calibration Procurement Documents, Revise Ops Procedure (if Required)		
<div style="display: flex; justify-content: space-between; margin-top: 20px;"> _____ _____ </div> <div style="display: flex; justify-content: space-between; margin-top: 5px;"> CCP M&TE Custodian Print Name/Sign Date </div>		

Attachment 5 – Exemption/Temporary Extension Evaluation

1. ID Number:	2. Calibration Date:	3. Page ____ of ____				
4. M&TE item description:						
5. M&TE manufacturer and model number:						
6. CCP location (Site ID), process and operations the M&TE item is used for:						
7. Evaluation is for: <input type="checkbox"/> Exemption <input type="checkbox"/> Temporary Extension						
8. Is calibration required by procedure or regulatory requirement? <input type="checkbox"/> Yes <input type="checkbox"/> No						
9. Basis for calibration exemption and how procedure or regulatory requirement will be met:						
10. Temporary extension requested for _____ (days) (Not to exceed 25% of calibration interval)						
Extension Approved: <table style="width: 100%; border: none;"> <tr> <td style="width: 60%; border: none;">_____</td> <td style="width: 40%; border: none;">_____</td> </tr> <tr> <td style="border: none;">Cognizant Engineer Print Name/Sign</td> <td style="border: none;">Date</td> </tr> </table>			_____	_____	Cognizant Engineer Print Name/Sign	Date
_____	_____					
Cognizant Engineer Print Name/Sign	Date					
11. Exemption/Temporary Extension Disposition Accept Recommendation? <input type="checkbox"/> Yes <input type="checkbox"/> No Exemption Granted? <input type="checkbox"/> Yes <input type="checkbox"/> No Temporary Extension for _____ (days) (Not to exceed 25% of Calibration Interval) Follow-up Actions to Implement the Change: <input type="checkbox"/> Calibration Exemption: Update IDC <input type="checkbox"/> Calibration Extension: Issue Revised Cal. Tag, Update IDC & Add "EXTENSION JUSTIFICATION" in IDC <table style="width: 100%; border: none;"> <tr> <td style="width: 60%; border: none;">_____</td> <td style="width: 40%; border: none;">_____</td> </tr> <tr> <td style="border: none;">CCP M&TE Custodian Print Name/Sign</td> <td style="border: none;">Date</td> </tr> </table>			_____	_____	CCP M&TE Custodian Print Name/Sign	Date
_____	_____					
CCP M&TE Custodian Print Name/Sign	Date					

Attachment 6 – Closing/Exit Calibration

1. ID Number:	2. Calibration Date:	3. Page ____ of ____
4. M&TE item description:		
5. M&TE manufacturer and model number:		
6. CCP location (Site ID), process and operations the M&TE item is used for:		
7. Method used to verify measurement data since previous calibration: <input type="checkbox"/> Re-calibration in accordance with Section 4.5. <input type="checkbox"/> Field verification with known source: ID Number: Calibration Date: Calibration Due Date: <input type="checkbox"/> Other – Explain (e.g., M&TE Item was contaminated and had to be disposed):		
8. Associated NCR(s), (If Applicable):		
9. Evaluator (Date Indicates that evaluation was completed): Evaluator Print Name/Sign _____ Date _____ M&TE Follow-up Actions: <input type="checkbox"/> Closing Calibration: "ARCHIVE" file & Add "COMMENT" in IDC <input type="checkbox"/> Exit Calibration: "ARCHIVE" file & Add "COMMENT" in IDC		

CCP-QP-017

Revision 4

CCP Identification and Control of Items

EFFECTIVE DATE: 08/14/2013

Mike Ramirez

PRINTED NAME

APPROVED FOR USE

RECORD OF REVISION

Revision Number	Date Approved	Description of Revision
3	11/16/2006	Revised to implement the Waste Isolation Pilot Plant Hazardous Waste Facility permit requirements resulting from the Section 311/Remote-Handled (RH) Permit Modification Request (PMR).
4	08/14/2013	Revised to incorporate the Nuclear Waste Partnership (NWP) transition changes and other Quality Assurance (QA) related changes.

TABLE OF CONTENTS

1.0	PURPOSE.....	4
1.1	Scope.....	4
2.0	REQUIREMENTS.....	4
2.1	References	4
2.2	General	5
2.3	Application and Removal of Status Indicators.....	6
2.4	Status of Items.....	6
3.0	RESPONSIBILITIES.....	7
3.1	Quality Assurance (QA)	7
3.2	Operator.....	7
4.0	PROCEDURE.....	8
4.1	Nonconformance Status	8
4.2	Application of Status Indicators.....	8
5.0	RECORDS.....	9

1.0 PURPOSE

This procedure describes the responsibilities, interfaces, and requirements for the identification and control of quality-affecting items or systems related to the Central Characterization Program (CCP) waste characterization and certification activities.

1.1 Scope

This procedure applies to identification and control of items or systems requiring status indicators that are related to the CCP activities associated with waste characterization, certification, packaging, and transportation. Status indicators are used for identification and control of items and systems.

2.0 REQUIREMENTS

2.1 References

Baseline Documents

- WP 13-1, *Nuclear Waste Partnership LLC Quality Assurance Program Description*
- CCP-PO-001, *CCP Transuranic Waste Characterization Quality Assurance Project Plan*
- CCP-PO-002, *CCP Transuranic Waste Certification Plan*

Referenced Documents

- CCP-QP-005, *CCP TRU Nonconforming Item Reporting and Control*
- CCP-QP-026, *CCP Inspection Control*
- CCP-QP-027, *CCP Test Control*

2.2 General

2.2.1 Traceability requirements will be specified in design documents or implementing procedures. Processes will be established and implemented to control consumables and items with limited operating or shelf life and to prevent the use of incorrect or defective items. If codes, standards, or specifications include specific identification or traceability requirements (such as identification or traceability of the item to applicable specification or grade of material; heat, batch, lot, part or serial number; or specified inspection, test, or other records), identification and traceability methods will be implemented to ensure meeting the special requirements.

2.2.2 Status indicators identify the inspection, test, and operating status of items or systems procured or fabricated in support of CCP activities. Status indicators ensure that:

- [A] Items are identified, controlled, and maintained in a manner that ensures traceability from time of receipt through installation or end use.
- [B] Records are maintained to ensure that the item can be traced at all times from its source through installation or end use.
- [C] Required inspections and tests are performed, acceptability of the item is known, and items that have not passed the required inspections and tests are not inadvertently installed, used, or operated.

2.2.3 The status indicator will:

- [A] Be applied using materials and methods that provide a clear, permanent, and legible identification. These materials and methods may include physical markings, physical separation, or labels and tags.
- [B] Not be detrimental to the function or service life of the item.
- [C] Be transferred to each part of an identified item when the item is subdivided.
- [D] Not be obliterated or hidden by surface treatments, coatings, or installation unless other means of identification are substituted.

- [E] Requirements for inspections of items supporting CCP activities are addressed in CCP-QP-026, *CCP Inspection Control*.
- [F] Requirements for testing of CCP-related items are addressed in CCP-QP-027, *CCP Test Control*.
- [G] Status indicators for nonconforming items will be controlled in accordance with CCP-QP-005, *CCP TRU Nonconforming Item Reporting and Control*.

2.3 Application and Removal of Status Indicators

- 2.3.1 Status indicator tags will be initiated, applied, and removed by personnel performing the verification of status.

2.4 Status of Items

- 2.4.1 Item identification methods include physical markings.
- 2.4.2 When physical markings are impractical or insufficient, status shall be maintained through indicators such as physical location, tags, markings, shop travelers, stamps, inspection records, operator aids, equipment labeling, or other suitable means. Status indicators will be used to:
 - [A] Provide identification and control of items
 - [B] Provide status of systems and components (e.g., tagging valves and switches) to prevent inadvertent operation
- 2.4.3 When the status of the item changes, the original status indicator will be removed by authorized personnel.
- 2.4.4 Status indicator tags will be legible, with all sections completed. Non-applicable sections will have "NA" entered.
- 2.4.5 Status indicators for nonconforming items will be controlled in accordance with CCP-QP-005.

3.0 RESPONSIBILITIES

| 3.1 Quality Assurance (QA)

| 3.1.1 Performs surveillance of the noted activities.

3.2 Operator

3.2.1 Applies a status indicator tag to the item or system when another status indicator process is not used.

4.0 PROCEDURE

| **NCR Originator**

| 4.1 Nonconformance Status

4.1.1 When a nonconforming condition is discovered, initiate or ensure initiation of a nonconformance report (NCR) in accordance with CCP-QP-005.

| 4.1.2 Apply a HOLD TAG to the item.

4.2 Application of Status Indicators

NOTE

Item identification and control system records will provide the operating status of items. The identification methods will preclude the inadvertent installation, use, or operation of items that have not passed required inspections and tests.

Operator

4.2.1 Identify condition or action that would change the status of an item or system.

4.2.2 When a nonconforming condition is discovered, initiate or ensure initiation of an NCR in accordance with CCP-QP-005.

NOTE

| HOLD TAGS will be used to identify nonconforming items. The HOLD TAG will remain attached to the nonconforming item until disposition has been completed. The NCR will describe extent of the hold (e.g., a description of action(s) required prior to release of hold) and the NCR number will be included on the tag.

5.0 RECORDS

5.1 There are no records generated during the performance of this procedure.

CCP-QP-021

Revision 10

CCP Surveillance Program

EFFECTIVE DATE: 04/28/2014

Mike Ramirez

PRINTED NAME

APPROVED FOR USE

RECORD OF REVISION

Revision Number	Date Approved	Description of Revision
3	06/03/2002	Section 2.0, Requirements (page 2): Change the first paragraph after the bullets to read as follows: "Planned and periodic surveillance will be conducted to measure item and service quality, process effectiveness, and promote improvement. The organization performing the assessments will have sufficient authority and freedom from the activities being assessed to carry out its responsibilities. Persons conducting surveillances will be qualified in accordance with CCP-QP-002, <i>CCP Training and Qualification Plan</i> , and knowledgeable of the items and activities being assessed."
4	05/24/2004	Revised Sections 1.1, 2.0, 2.3, 2.4, 4.0, 5.0 and Figure 2.
5	11/16/2006	Reengineered Surveillance Program to make it more comprehensive, to ensure findings are identified and tracked, and to ensure consistency amongst CCP Quality Assurance (QA) personnel, and to implement the Waste Isolation Pilot Plant Hazardous Waste Facility Permit-requirements resulting from the Section 311/Remote-Handled (RH) Permit Modification Request (PMR). Addressed Carlsbad Field Office (CBFO) Document Review Record (DRR) comment.
6	12/10/2008	Revised to delete reference to "assessments" incorporate conditions Corrected During Surveillance (CDS) and clarify training and qualification of surveillance personnel.
7	05/07/2010	General revision to clarify follow-up to observations and provide clarity of text.
8	01/16/2013	Revised to incorporate Nuclear Waste Partnership (NWP) transition changes.

RECORD OF REVISION (Continued)

Revision Number	Date Approved	Description of Revision
9	10/23/2013	General revision: changed notes to action steps, rearranged action steps in chronological order, added definitions, deleted Surveillance Log Attachment Example, added action step for Surveillance Log detail, added Surveillance Checklist Example Attachment, updated titles, improved Surveillance Report format, improved Surveillance Plan format, deleted CCP-QP- 029, <i>CCP Corrective Action Management</i> , and CARs, replaced CARs with WIPP Forms, renumbered sections and paragraphs more logically, replaced CCP-QP-002, <i>CCP Training and Qualification Plan</i> , with CCP-QP-040, <i>Support Training</i> , clarified when notification is required, deleted Surveillance Checklist from Records, made editorial corrections.
10	04/28/2014	Revised to address Carlsbad Field Office (CBFO) Corrective Action Reports (CARs) 14-034 and 14-035. Also added WP 13-QA.04, <i>Quality Assurance Department Administrative Program</i> , as an acceptable procedure for qualification of surveillance personnel.

TABLE OF CONTENTS

1.0	PURPOSE	5
1.1	Scope.....	5
1.2	Definitions	5
2.0	REQUIREMENTS.....	6
2.1	References	6
3.0	RESPONSIBILITIES.....	7
3.1	Assurance Programs Manager	7
3.2	Surveillance Lead	7
3.3	Surveillance Team Members	7
3.4	Surveillance Coordinator.....	8
3.5	Responsible Manager of Area Assessed.....	8
3.6	CTS Coordinator.....	8
4.0	PROCEDURE.....	9
4.1	Schedule the Surveillance	9
4.2	Plan and Conduct the Surveillance.....	10
4.3	Report the Surveillance.....	12
4.4	Follow Up the Surveillance	13
5.0	RECORDS.....	14

LIST OF ATTACHMENTS

Attachment 1 – Surveillance Plan Example.....	15
Attachment 2 – Surveillance Report Example	16
Attachment 3 – Surveillance Checklist Example	18

1.0 PURPOSE

This procedure specifies the steps for independent quality assurance (QA) surveillances, and establishes the process and responsibilities for planning, conducting, documenting, reporting, and following up surveillances of the Central Characterization Program (CCP).

1.1 Scope

This procedure applies to CCP organizations, facilities, and personnel conducting surveillances of TRU waste characterization. Planned and periodic surveillances will be conducted to measure item and service quality, process effectiveness, and to promote improvement. The organization conducting the surveillance will have sufficient authority and freedom to carry out its responsibilities. Persons conducting surveillances will complete a Quality Assurance Surveillance Personnel Qualification Card prepared and approved in accordance with CCP-QP-040, *Support Training*, or WP 13-QA.04, *Quality Assurance Department Administrative Program*, and be knowledgeable of the items and work assessed.

1.2 Definitions

Corrected During the Surveillance	An isolated condition adverse to quality which can be corrected and verified by review of objective evidence before the surveillance concludes.
Finding	A violation of a quality assurance requirement requiring documentation by Nonconformance Report or Waste Isolation Pilot Plan (WIPP) Form.
Objective Evidence	Any documented statement of fact, other information, or record, either quantitative or qualitative, pertaining to the quality of an item or process, based on observation, measurement, or test which can be verified.
Observation	A condition that, if not addressed, may deteriorate into a finding.
Other Condition Requiring Resolution (OCRR)	A violation of a non-quality assurance requirement that requires documentation and followup by entry in the Commitment Tracking system (CTS).
Recommendation	A suggestion that, if implemented, might improve compliance with the quality assurance program.
Surveillance	Monitoring or observing to verify whether an item or process conforms to specified requirements.

2.0 REQUIREMENTS

2.1 References

Baseline Documents

- WP 13-1, *Nuclear Waste Partnership LLC Quality Assurance Program Description*

Referenced Documents

- CCP-QP-005, *CCP TRU Nonconforming Item Reporting and Control*
- CCP-QP-008, *CCP Records Management*
- CCP-QP-040, *Support Training*
- WP 13-QA.04, *Quality Assurance Department Administrative Program*
- WP 15-GM1002, *Issues Management Processing of WIPP Forms*

3.0 RESPONSIBILITIES

3.1 Assurance Programs Manager

- 3.1.1 Ensures implementation of the surveillance program as specified in this procedure.
- 3.1.2 Approves the surveillance schedule.
- 3.1.3 Ensures that surveillance personnel have successfully completed a Quality Assurance Surveillance Personnel Qualification Card.
- 3.1.4 Ensures surveillance personnel have sufficient authority and organizational freedom to carry out their assigned responsibilities.
- 3.1.5 Assigns Surveillance Lead.
- 3.1.6 Informs the Nonconformance Report (NCR) Coordinator, CTS Coordinator, and Nuclear and Worker Safety Compliance Coordinator about findings.

3.2 Surveillance Lead

- 3.2.1 Selects the Surveillance Team Members and ensures they meet qualification requirements.
- 3.2.2 Informs the surveillance team regarding the Plan, assignments, etc.
- 3.2.3 Notifies affected organizations of surveillances, when applicable.
- 3.2.4 Develops the surveillance plan.
- 3.2.5 Approves surveillance checklists, when used.
- 3.2.6 Organizes and directs the surveillance.
- 3.2.7 Reports the surveillance results.
- 3.2.8 Follows up on observations and findings identified in previous surveillances or other assessments, or NCR or WIPP Form dispositions.

3.3 Surveillance Team Members

- 3.3.1 Identifies the criteria to be used during the surveillance.

- 3.3.2 Develops the surveillance checklist(s), when applicable, under the direction of the Surveillance Lead.
- 3.3.3 Periodically informs the Surveillance Lead of progress and problems with assigned tasks during the surveillance.
- 3.3.4 Notifies the Responsible Manager and Surveillance Lead when potentially unsafe conditions are identified.
- 3.4 Surveillance Coordinator
 - 3.4.1 Develops and maintains a surveillance schedule.
 - 3.4.2 Develops and maintains a Surveillance Log.
 - 3.4.3 Develops at least annually and maintains surveillance schedules that document planned surveillances.
- 3.5 Responsible Manager of Area Assessed
 - 3.5.1 Corrects conditions adverse to quality and tracks and follows up on Observations, and OCRRs identified during the surveillance.
- 3.6 CTS Coordinator
 - 3.6.1 Enters CTS data into the WIPP CTS for tracking and follow-up when applicable.

4.0 PROCEDURE

4.1 Schedule the Surveillance

Assurance Programs Manager

- 4.1.1 In coordination with Management, identify work to be assessed by surveillance.

Surveillance Coordinator

- 4.1.2 Prepare and maintain the surveillance schedule based on QA and Management input.

- 4.1.3 Assign a unique Surveillance number to each surveillance and document the following in a Surveillance Log:

- Surveillance number
- Item, process, organization, or procedure to be assessed
- Date the surveillance is planned to begin.

[A] The Surveillance number is represented by:

- SUR-xxxxxx-yy-zz, where:
- “SUR” represents the designator for surveillance
- “xxxxxx” represents the facility (CCP, INL, LANL, ORNL, RL, SRS, RHANL, etc.) (when applicable to remote-handled waste, include “RH” as a prefix to the site designator [e.g., Los Alamos National Laboratory remote-handled waste = “RHLANL”])
- “yy” represents a sequential number, beginning “-01-” each calendar year
- and “zz” represents the final two digits of the calendar year in which the surveillance is initiated.

[B] Examples of surveillance numbers:

- SUR-RHINL-01-13
- SUR-SRS-94-13
- SUR-CCP-15-13

4.1.4 Obtain Assurance Programs Manager approval of the schedule.

Assurance Programs Manager

4.1.5 Assign a Surveillance Lead for each scheduled surveillance.

[A] Select personnel who have no direct responsibility for the work to be assessed.

4.1.6 Approve the surveillance schedule.

4.2 Plan and Conduct the Surveillance

Surveillance Lead

4.2.1 Obtain a Surveillance Number from the Surveillance Coordinator.

4.2.2 Select Surveillance Team Members as needed, based on expertise, availability, experience, objectivity, and the scope, complexity, or special nature of the work to be assessed, with the following in mind:

- Surveillance Team Members shall be qualified to conduct surveillances in accordance with CCP-QP-040 or WP 13-QA.04
- Personnel having direct responsibility for work to be assessed shall NOT be involved in the selection of the team
- Surveillance Team Members shall have the authority to conduct surveillances, and shall be independent from the organization to be assessed
- During surveillance, technical specialists may be used to assist with assessment of the adequacy of technical attributes
- The Surveillance Lead will ensure technical specialists are knowledgeable of the technical attributes to be assessed, and that they receive the same instructions as other team members.

4.2.3 Prepare the Surveillance Plan (See Attachment 1, Surveillance Plan Example) to address the following priorities:

- Monitor work in progress

- Document compliance or noncompliance with established requirements and procedures
- Identify actual and potential conditions adverse to quality
- Obtain timely corrective action commitment from responsible managers for identified conditions adverse to quality
- Notify responsible managers of the quality status of work
- Verify effective implementation of corrective action.

4.2.4 Review the Plan with Surveillance Team members, including pertinent background information, previous surveillance or oversight results, applicable procedures, and applicable technical documents to familiarize Surveillance Team members with the work under assessment.

4.2.5 When the organization to be assessed is outside the area of responsibility of the organization conducting the surveillance, notify the organization(s) to be assessed of the surveillance date(s) and its purpose by memorandum, letter, or email.

Surveillance Team Members

4.2.6 When electing to use surveillance checklists, prepare them including the criteria to be assessed. See Attachment 3, Surveillance Checklist Example, for guidance.

4.2.7 Examine objective evidence, work in progress, items (including components, specimens, or equipment, etc.), and interviewing responsible personnel as applicable. Include technical evaluations of the applicable procedures, instructions, work, and items, as applicable.

4.2.8 Review previous corrective actions, when applicable, to assess implementation and effectiveness.

4.2.9 Review applicable documents, standards, and criteria pertaining to the process to be assessed.

4.2.10 Document the results of the surveillance as input to the surveillance report in sufficient detail, including but not limited to objective evidence examined and personnel interviewed to ensure retrieval of records examined is possible.

4.2.11 Inform the Surveillance Lead of progress and problems with assigned tasks during the surveillance.

4.2.12 Notify the Responsible Manager and Surveillance Lead of potentially unsafe conditions.

Surveillance Lead

4.2.13 Notify the Assurance Programs Manager and the management of the assessed organization as soon as practicable if conditions are discovered that could impact prior work, affect work in progress significantly, or if conditions require prompt attention.

4.2.14 If applicable, prepare NCRs in accordance with CCP-QP-005, *CCP TRU Nonconforming Item Reporting and Control* and WIPP Forms in accordance with WP 15-GM1002, *Issues Management Processing of WIPP Forms*.

4.2.15 Brief management of the assessed organization.

4.3 Report the Surveillance

4.3.1 Prepare the surveillance report using Surveillance Report (Example provided as Attachment 2, Surveillance Report) and include the following elements, as applicable:

- Identify conditions adverse to quality in sufficient detail to enable corrective actions to be taken by the assessed organization. Document nonconforming item(s) (i.e., hardware or data) using an NCR and programmatic conditions using a WIPP Form. Cite the requirement(s) applicable to these deficiencies.
- If Observations were identified, state that conditions observed, if not addressed, could deteriorate into a finding.
- If Other Conditions Requiring Resolution were identified, describe them and what requirements were violated.
- When applicable, provide recommendations that could strengthen the existing program or process.
- Include in the report descriptions of all actions taken to resolve conditions adverse to quality, and identify those conditions adverse to quality as corrected during the surveillance (CDS).

- Document each CDS item by WIPP Form solely for trending purposes.

4.3.2 Sign and date and submit the report to the Assurance Programs Manager for review and approval.

Assurance Programs Manager

4.3.3 Review the surveillance report, resolve any issues with the Surveillance Lead, and approve the report.

4.3.4 Issue the surveillance reports to management, Nuclear and Worker Safety Compliance Coordinator, NCR Coordinator, Surveillance Coordinator, National TRU Program Certification (NTPC) Records, the applicable Host Site Subcontract Technical Representative, and the applicable Site Project Manager.

4.3.5 Consider the surveillance closed when issued. The conditions adverse to quality are documented by NCR, WIPP Form, or CTS item, all of which are self-contained systems in which the deficiency documents or items are closed independently.

4.4 Follow Up the Surveillance

CTS Coordinator

4.4.1 Make a separate entry for each finding (NCR or WIPP Form) identified in the report into the Integrated Data Center or the WIPP CTS.

Responsible Manager of Assessed Organization

4.4.2 Ensure timely and effective corrective actions in response to NCRs, WIPP Forms, or Other Conditions Requiring Resolution resulting from the surveillance.

4.4.3 Work with the Surveillance Lead and the Assurance Programs Manager to resolve issues regarding necessary corrective actions.

4.4.4 After completion of corrective actions associated with surveillance, inform the CTS Coordinator.

5.0 RECORDS

5.1 Records generated as a result of implementing this procedure are controlled, maintained, and submitted as QA records in accordance with CCP-QP-008, *CCP Records Management*. The records are the following:

5.1.1 QA/Nonpermanent

[A] Surveillance File, including:

- Surveillance Notification, when applicable
- Surveillance Plan
- Surveillance Report

[B] Surveillance Schedule

Attachment 1 – Surveillance Plan Example

SURVEILLANCE PLAN

[SUBJECT or Organization to be assessed]

Surveillance Number:	[SUR-SRS-01-13]
Organization to be Evaluated:	[CCP Nondestructive Examination]
Location:	[Savannah River Site]
Surveillance Initiation Date:	[1 October 2013]
Surveillance Team Lead:	
Surveillance Team Member(s):	
Scope:	[What will the surveillance team look at?]
Planned Contact(s):	
Objective(s):	[How the surveillance will be done: examine documents, interview personnel, or observe work in progress, etc.]
Applicable Requirements and Documents:	[Procedures, DOE documents, corrective action commitments, recurrence of previous findings, etc.]

Attachment 2 – Surveillance Report Example (continued)

SUMMARY

[a brief sentence or two on surveillance results: when and where the surveillance was conducted, how many WIPP Forms, Observations, OCRRs, Recommendations, etc., and a summary statement on whether the implementation of the QA Program for what was examined was satisfactory]

SCOPE

[e.g., what the surveillance personnel examined]

CRITERIA

[e.g., what requirements the surveillance was based on: such as CCP-QP-002, *CCP Training and Qualification Plan*, revision 35]

PERSONNEL

[surveillance team lead and members; personnel whom the surveillance team contacted or interviewed]

DETAILS

[how the surveillance was conducted: e.g., what objective evidence was reviewed; what work was observed; and the results]

FINDINGS (NCRs and WIPP Forms)

OTHER CONDITIONS REQUIRING RESOLUTION (include CTS nos.)

CORRECTED DURING THE SURVEILLANCE

STATUS OF CONCERNS PREVIOUSLY IDENTIFIED

OBSERVATIONS

RECOMMENDATIONS

NOTEWORTHY PRACTICE

ATTACHMENTS [if applicable]

Attachment 3 – Surveillance Checklist Example

SURVEILLANCE CHECKLIST

Surveillance number: SUR-

Checklist approved by:

Date:

Page 1 of 1

Notes (NCR = Nonconformance Report; WF = WIPP Form;
CDS = Corrected During the Surveillance; OBS =
Observation; OCRR = Other Condition Requiring
Resolution)

SATIS-
FACTORY (S);
UNSATIS-
FACTORY (U);
or N/A

No.	Reference	Criterion		
1.				
2.				
3.				
4.				
5.				
[etc.]				

CCP-QP-022

Revision 14

CCP Software Quality Assurance Plan

EFFECTIVE DATE: 06/02/2014

Mike Ramirez

PRINTED NAME

APPROVED FOR USE

RECORD OF REVISION

Revision Number	Date Approved	Description of Revision
3	09/26/2002	Made numerous changes to section and made changes to all attachments. Added step 4.9.1[K]. Added a Record of Revision. Updated Procedure Titles.
4	07/28/2005	Revision in response to Carlsbad Field Office (CBFO) Corrective Action Reports (CARs) # 05-031 and # 05-032 from the Idaho National Laboratory (INL) Certification Audit.
5	08/09/2005	Revised to change wording in Scope to align with the Site Project Manager (SPM) responsibilities.
6	01/25/2006	Revised to add new Section 4.7, language regarding proprietary software, steps to Section 4.5 and minor clarifications. This revision is in response to CBFO CAR 06-007.
7	05/30/2006	Removed the responsibility of the Software Configuration Management Coordinator (SCMC) to issue Software Change Order (SCO), SCO Addendum and SPER numbers and to maintain the associated logs.
8	11/16/2006	Revised to implement the Waste Isolation Pilot Plant Hazardous Waste Facility Permit requirements resulting from the Section 311/Remote-Handled (RH) Permit Modification Request (PMR).
9	10/15/2007	Revised in response to Central Characterization Project (CCP) Corrective Action Report (CAR) CAR-INL-0009-06 and in response to comments from the user community. The procedure was completely revised to provide separate sections addressing each type of software. The forms were adjusted to accommodate the newly-created sections, but the overall process was not significantly changed. A new section was added, addressing the control and use of Library Data Files.
10	10/16/2008	Revised to include Software Configuration Change Report (SCCR) for Central Characterization Project (CCP) software. Added the role of Records Custodian. CCP software end user testing is now required.

RECORD OF REVISION (Continued)

Revision Number	Date Approved	Description of Revision
11	12/08/2009	Revised to include unique identifier information on all applications within commercial off the shelf software (COTS) spreadsheets (software change order [SCO] #, Addendum #, Software name and version, and tested operating environment). Annual review of the Software Inventory Listing (SIL) will be performed incrementally on a quarterly basis. Minor software changes were also incorporated.
12	11/18/2010	Revised to add steps for the Software Configuration Management Coordinator (SCMC) to issue software change order (SCO) numbers through the data center. This is in reference to the CAR-CCP-0010-10.
13	02/25/2013	Revised to include Safety Software per Department of Energy (DOE) Order 414.1D, and to remove repetition and streamline procedure.
14	06/02/2014	Revised steps for software retirement to ensure that retired software is removed from all computers and workstations including the sftp site. This is in reference to Corrective Action Report (CAR) 14-031.

TABLE OF CONTENTS

1.0 PURPOSE6

1.1 Scope.....6

1.2 Applicable Software6

1.3 Software Evaluation8

1.4 Configuration Management.....8

1.5 Software Change Orders (SCO)9

1.6 Software Inventory Listing.....10

1.7 Software Problem Reporting and Change Request (SPRCR)11

1.8 Software Removal and Retirement11

1.9 Secure File Transfer Protocol Site (sftp)11

1.10 Software from Qualified Suppliers Working as Subcontractors to CCP12

1.11 Software Quality Assurance Plan (SQAP)12

1.12 Requirements Documentation13

1.13 Design Documentation.....14

1.14 User Documentation14

1.15 Testing15

1.16 Required Documentation17

2.0 REQUIREMENTS.....18

2.1 References18

2.2 Definitions18

3.0 RESPONSIBILITIES.....19

3.1 Initiator19

3.2 Software Developer (SD)19

3.3 Tester.....20

3.4 Software Configuration Management Engineer (SCME)20

3.5 Site Project Manager (SPM)20

3.6 CCP Records Custodian.....21

3.7 End User (Only for CCP Software)21

4.0 PROCEDURE.....22

4.1 Software Evaluation22

4.2 Software.....23

4.3 Additional Software Installations29

4.4 Software Review Action Items30

4.5 Retirement31

4.6 Software Removal33

5.0 RECORDS.....35

LIST OF ATTACHMENTS

Attachment 1 – Software Evaluation Checklist.....39
Attachment 2 – Software Change Order40
Attachment 3 – Software Problem Reporting and Change Request (SPRCR).....42
Attachment 4 – Software Review Action Item 43
Attachment 5 – Definitions 44

1.0 PURPOSE

This Central Characterization Program (CCP) Software Quality Assurance (QA) Plan (SQAP) addresses the procurement, development, maintenance, configuration management, and use of computer software, as applied to waste characterization, waste certification, and waste transportation activities.

1.1 Scope

This SQAP applies to all computer software including applications developed within Commercial-Off-The-Shelf (COTS) or System Software, used by the Nuclear Waste Partnership (NWP) Limited Liability Corporation (LLC), CCP, or any CCP subcontractor that produces data used to process, gather, or generate information used to make design, analytical, operational, or compliance-related decisions about transuranic (TRU) waste characterization, waste certification, waste transportation, or waste acceptance.

1.2 Applicable Software

1.2.1 System Software

System Software includes operating systems such as Windows, Linux, and system utilities such as compilers, assemblers, translators, interpreters, query languages, word processing programs, spreadsheet programs, database managers, and graphing programs. System Software is exempt from the requirements of this SQAP.

1.2.2 Library (Data) Files

Library files (e.g., nuclide library files used for Nondestructive Assay [NDA]) containing vendor-supplied data shall be controlled by the qualified supplier. A Software Change Order (SCO) is required for the initial library files when they are introduced into the CCP program for installation, and when they are updated with qualified supplier changes.

Data files that do not affect accuracy or precision, or the quality and correctness of the information, are exempt.

1.2.3 Supplier Software

Software that's initial design, programming, and testing is performed by a third party. Supplier Software can be categorized as COTS, System Software, or Firmware and could be supplied by either a Qualified or Non-qualified Supplier.

[A] COTS Software

COTS are software products that are general purpose, ready-made and available for sale to the general public. COTS products are mass-produced, and are designed to be implemented easily into existing systems without the need for customization by the vendor. COTS software that meets the requirements of Section 1.1 are not exempt from this SQAP.

[B] Applications within COTS

Specific Applications developed for use that fall under the applicability of this SQAP, based on COTS or System Software (e.g., Microsoft (MS) Excel spreadsheets, MS Access databases, detailed formulas, or macros) are not exempt from the requirements of this SQAP.

[C] Qualified Supplier Software

Qualified Supplier software is software that is developed for CCP to perform a specific end-user function. Only software that is provided from vendors that are on the NWP Qualified Supplier list (QSL) may be considered as Qualified Supplier software.

[D] Non-Qualified Supplier Software

Non-Qualified Supplier software is also developed for CCP to perform a specific end-user function. Non-Qualified Supplier software is provided by vendors that are not on the NWP QSL. Additional requirements are necessary for Non-Qualified Supplier software to ensure that it meets CCP criteria, before it can be used.

1.2.4 Safety Software

Safety software includes the following:

Safety System Software – Software that performs a safety function as part of a structure, system, or component and is cited in either a) a Documented Safety Analysis, or b) an approved hazard analysis.

Safety and Hazard Analysis Software and Design Software – Software that is used to classify, design, or analyze nuclear facilities. This software is not part of a structure, system, or component (SSC), but helps to ensure the proper accident or

hazards analysis of nuclear facilities or a SSC that performs a safety function.

Safety Management and Administrative Controls Software – Software that performs a hazard control function in support of nuclear facility or radiological safety management programs or technical safety requirements or other software that performs a control function necessary to provide adequate protection from nuclear facility or radiological hazards. This software supports eliminating, limiting, or mitigating nuclear hazards to workers, the public, or the environment.

1.2.5 CCP Software

CCP Software is in-house custom software developed for CCP Personnel to perform specific end user tasks.

1.2.6 Firmware

Vendor supplied software that is included as an integral part of an instrument (e.g., programmed in a read-only memory [ROM] chip) and cannot be modified by another party. Firmware that cannot be removed or updated is exempt from the requirements of this SQAP. Firmware that is removable or updatable will be treated as software in accordance with this SQAP.

1.3 Software Evaluation

Software used by CCP will be evaluated to determine the applicable sections of this SQAP. Attachment 1, Software Evaluation Checklist, will be used for this evaluation.

1.4 Configuration Management

Configuration of software shall be maintained as follows:

Software shall be placed under configuration control as each configuration item is approved during the software development life cycle or as Qualified Supplier software is brought into the CCP program. A software baseline shall define the most recent approved software configuration. The configuration items and their associated documentation shall be traceable to one another.

1.4.1 Labeling System

A labeling system for configuration items shall be implemented that:

- Uniquely identifies each configuration item.
- Identifies changes to configuration items by revision or version identifier.
- Provides the ability to uniquely identify each approved configuration of the revised software that is available for use.

1.5 Software Change Orders (SCO)

All software applications used to process, gather, or generate information used to make design, analytical, operational, or compliance-related decisions about TRU waste characterization, waste certification, waste transportation, or waste acceptance must have an Attachment 2, Software Change Order, completed when initially brought under software configuration management. Each application will be assigned an SCO number (see Section 1.5.1) that will act as a unique identifier in order to track future modifications to the software, new installations, retirements, etc.

An addendum to an SCO is indicated by Block 2 on Attachment 2. An addendum to an SCO is used for additional installations, removals, and modifications to software. A modification may be considered a minor change. The degree of software validation shall be commensurate with the nature and scope of the change. A minor change is any change that cannot affect the data quality of the application. Examples of this would be changing screen colors, adding a corporate logo, correcting grammar, etc.

NOTE

The Software Configuration Management Engineer (SCME) works with the Software Developer (SD), Site Project Manager (SPM), and other appropriate individuals to determine if a change is considered a minor change.

Each revision must have an addendum to the corresponding SCO completed.

1.5.1 SCO Numbering System

All software, when brought under the software configuration management program, will be assigned a unique SCO number by the SCME (example: 851, 852, etc.). The SCME will obtain the unique SCO number from the Integrated Data Center (IDC).

1.6 Software Inventory Listing

The Software Inventory Listing (SIL) is a list that details all active, superseded, exempt, and retired software controlled by this SQAP. The SIL will be updated and maintained by the SCME.

The SIL will contain the following information, at a minimum:

- SCO number
- SCO Addendum number, if applicable
- Software name and version
- Host site location
- Classification (including the purpose of the software relative to its use in engineering, scientific, testing, data collection, design, analysis and operations activities)
- Exemption status
- The operating system on the computer in which the software is installed
- The COTS or System software in which the application was developed, if applicable
- The date the Application within COTS or System Software was developed, if applicable
- Computer model and serial number upon which the software is installed, if applicable
- Name of the SPM (that approved the software) of the site at which the software is installed

The SIL will be evaluated periodically, at least once annually, to ensure the data is accurate, current and complete. The process is administered by the SCME and utilizes management assessments, completed by the responsible area managers with the results compiled by the SCME. To facilitate a more manageable process the SCME may divide the SIL into four sections with one section completed each quarter.

NOTE

The SCO number in Block 1 of Attachment 3, Software Problem Reporting and Change Request (SPRCR), is the SCO number for the software that the problem or change is being reported against. The report number in Block 2 is issued by the SCME.

1.7 Software Problem Reporting and Change Request (SPRCR)

Attachment 3 is used either to report problems with software, the potential impact of the problem, and the corrective action(s) taken, or to request a modification to the software, unrelated to a problem with the software.

1.8 Software Removal and Retirement

The removal of software applications is performed using Attachment 2, and retirement of software applications is performed using Attachment 3.

1.9 Secure File Transfer Protocol Site (sftp)

Controlled versions of software applications developed within COTS are posted to a Secure File Transfer Protocol (sftp) site. The site address is: <https://sftp.wipp.energy.gov>.

Applications will be tested in one or more operating environments prior to sftp site upload.

NOTE

Information for legacy applications posted to the sftp site will be added when the software is modified.

Applications developed within COTS that are posted to the sftp site shall contain the following information:

- SCO number and addendum, if applicable
- Software name and version
- Operating environment(s) in which the application was tested (e.g., operating system and platform)
- The unique identifier information will be included on every printed page of the spreadsheet.
- The unique identifier information must be locked and/or password protected to prevent inadvertent modification.

- Software File posted to the sftp site will be named to be consistent with the name of the software on Attachment 2.

Applications that are considered proprietary by the original software vendor are not required to be uploaded to the ftp site. This software will be identified on the SIL as Proprietary and will identify the software vendor.

The SIL will be posted to the sftp site after every modification.

1.10 Software from Qualified Suppliers Working as Subcontractors to CCP

Software and associated documentation obtained by CCP from active QSL suppliers, who are also subcontractors to CCP for other services, will be controlled under the supplier's approved Software QA Program.

1.11 Software Quality Assurance Plan (SQAP)

An SQAP shall be developed for software to assure that a quality product is supplied. This is the SQAP for all software except Non-Qualified Supplier software, and Safety Software. A separate SQAP is required for Non-Qualified Supplier software, and Safety Software. For all software (this SQAP or the separate SQAPs for Non-Qualified Supplier software or Safety Software), the SQAP shall include:

- Software name
- Responsible person and organization
- Development standards and techniques to be used and methods of verifying compliance with them.
- Required activities, responsibilities, and documentation
- Required reviews and methods of verifying implementation of requirements
- Items that need to be base lined and methods for controlling the baseline configuration
- Provisions for error reporting, evaluation, and corrective action
- The procedure(s) used for establishing and maintaining the integrity of data, embodied mathematical models, and output files
- A plan to develop and document the Requirements, Verification and Validation (V&V) documents, Design, Tests, and User documents

For safety software, the following shall be identified, as applicable:

- Risk management-potential software risks, likelihood, consequences, and methods of controlling the risk
- Design authority involvement in identifying requirements specifications, acquisition, design, development, V&V (including inspection and testing), configuration management, maintenance, and retirement
- Required training in design, development, and evaluation of safety software

1.12 Requirements Documentation

Software requirements documentation shall outline the requirements that the proposed software must satisfy. The software requirements shall, as applicable, address the following:

- Software name and version
- System the software supports
- Name of the person who developed the requirements
- Functions that the software is to perform
- Time-related issues of software operations such as speed, recovery time, or response time
- Design constraints
- Non-time related issues of software operation such as portability, acceptance criteria, access criteria and maintainability identified
- Required interactions with people, hardware, and other software identified
- Requirements verification
- Requirements consistency
- Requirements technical feasibility that results in useable code

1.13 Design Documentation

The software design shall be based on the software requirements and shall be documented and reviewed. The design shall specify the overall structure (control and data flow) and the reduction of the overall structure into physical solutions (algorithms, equations, control logic, and data structures). The design may necessitate the modification of the requirements documentation and the verification and validation plans. The software design shall, as applicable, address the following:

- A description of the major components of the software design as they relate to the software requirements
- A technical description of the software with respect to the theoretical basis, mathematical model, control flow, data flow, control logic, and data structure
- Completeness and technical adequacy of the design
- A description of the allowable or prescribed ranges for inputs and outputs
- The design described in a manner that can be translated into code
- Traceability to the requirements

1.14 User Documentation

User documentation should be sufficient to allow any qualified user (i.e., one having adequate technical background) to install and run the software and properly respond to errors. User documentation, at a minimum, shall include:

- Software name and version
- User instructions that contain an introduction, a description of the user's interaction with the software, and a description of any required training necessary to use the software
- Input and output specifications and formats
- A description of functional requirements and system limitations, including hardware
- An explanation of the mathematical models and derivation of the numerical methods used in the software design (physical and

mathematical assumptions on which the software is based shall be included, along with an explanation of the capabilities and limitations inherent in the software), as applicable

- A description of the anticipated errors and how a user can respond
- Information for obtaining user and maintenance support

1.15 Testing

Installation, Integration, Regression, and Functionality are different types of tests that may be performed on software to ensure that it is working correctly prior to operational use. Installation testing will always be required prior to use for certification in the CCP program to ensure that the software was installed correctly. Integration testing is required if the software product interacts with other software products. Functionality testing is required if new features are added to the software or existing features have been modified. Regression testing is required if there is a concern that modifications to certain functions of the software could adversely affect other functions of the software that were not modified.

Testing will include methods of V&V, including the responsibilities of the organization(s) involved, resources needed, and the methods employed to ensure traceability of the requirements to final validation of software.

All modifications shall be formally evaluated and approved by the organization responsible for the original design, unless an alternate organization has been given the authority to approve the changes by the SCME. The SCME will identify other affected groups or organizations, as needed, to allow for additional evaluation.

The degree of software validation shall be commensurate with the nature and scope of the change.

V&V activities SHALL be performed by any independent individual(s) or group(s) other than those who performed the software design and implementation. The individuals may be from the same organization and may include the designer's supervisor, provided the supervisor:

- Did not specify a singular design approach
- Did not rule out certain design considerations
- Did not establish the design inputs used
- Is the only individual in the organization competent to perform the V&V

Acceptable test methods may include:

- Hand calculations
- Calculations using comparable proven programs
- Empirical data and information from technical literature
- Comparison with other validated software of similar purpose
- Manual inspections or qualitative checks not involving numerical manipulation
- Visual inspection of empirical data or data results based on the acceptable knowledge within the organization responsible for the original design

Test Plans shall identify or address the following:

- Software name and version
- System software supports
- Name of the person who developed the test plan
- Required tests and test sequences
- Required ranges of input parameters
- Identification of stages at which testing is required
- Criteria for establishing test cases
- Acceptance criteria
- Requirements for testing logic branches
- Requirements for hardware integration
- Anticipated output values
- Type of test (Installation, Integration, Functionality, Regression, etc.)
- For CCP software, identification of tests to be performed by the End User.

Test Reports/Results shall identify or address the following, as applicable:

- Computer program tested
- Computer hardware used
- Operating system(s) and version(s) used during test performance
- Test equipment and calibrations
- Date of test
- Tester or data recorder
- Simulation models used
- Test problems
- Results and acceptability
- Action taken in connection with any deviations noted
- Person evaluating test results
- Alternate test methods(s) used
- Type of test (Installation, Integration, Functionality, Regression, etc.).

1.16 Required Documentation

The documentation required for each software type is listed in Section 5.0.

2.0 REQUIREMENTS

2.1 References

Baseline Documents

- DOE/CBFO-94-1012, U.S. Department of Energy Carlsbad Field Office, *Quality Assurance Program Document*
- DOE/WIPP-07-3361 *Cyber Security Risk: Assessment and Mitigation*
- Office of Environmental Management (EM) – Program Security Plan (PSP)

Referenced Documents

- CCP-QP-008, *CCP Records Management*

2.2 Definitions

- 2.2.1 See Attachment 5, Definitions

3.0 RESPONSIBILITIES

NOTE

The Initiator can be the same person as the SD or Tester but the SD and Tester cannot be the same person.

3.1 Initiator

- 3.1.1 Brings issues regarding software and requests to develop, modify, or procure software to the attention of the SCME and the appropriate SPM.
- 3.1.2 Coordinates with the SD and SCME to initiate software development/modification activities in accordance with this procedure.
- 3.1.3 Develops SQAP in conjunction with the SD, SCME, and appropriate SPM for Non-Qualified Supplier and Safety Software per Section 1.11.

3.2 Software Developer (SD)

NOTE

The SD can be anyone knowledgeable on the software's application and the process in which the software is used.

- 3.2.1 Develops documentation required during various software life cycle phases in accordance with the requirements of this SQAP.
- 3.2.2 Develops and modifies software, as required.
- 3.2.3 Develops Test Plans and Test Cases, as required.
- 3.2.4 Coordinates with the SCME and appropriate SPM to document the development/modification of software in accordance with this procedure.
- 3.2.5 Participates in document reviews of requirements, design, code, and test documentation.
- 3.2.6 Develops/modifies user documentation.
- 3.2.7 Ensures all software packages are submitted to a Tester for testing.
- 3.2.8 Reviews and approves test plans and test results.

3.2.9 Troubleshoots problems with software.

3.2.10 Ensures obsolete versions of software are deleted or disabled so production use is prevented.

3.3 Tester

NOTE

The Tester can be anyone knowledgeable on the software's application and the process in which the software is used.

3.3.1 Performs software testing.

3.3.2 Documents the software test results.

3.3.3 Identifies and documents software errors during testing.

3.3.4 Works with the SD to resolve problems identified during testing.

3.4 Software Configuration Management Engineer (SCME)

3.4.1 Maintains the CCP Software Configuration Management Program and a database that includes a system to track and control software used to support CCP activities.

3.4.2 Responsible for overall CCP software QA program administration.

3.4.3 Primary interface for CCP Software QA evaluations and approvals.

3.4.4 Ensures that the SIL for the specific site location has been updated when software is procured, developed, modified, or installed.

3.5 Site Project Manager (SPM)

3.5.1 Approves operational use and documents validation of software in conjunction with the SD and SCME.

3.5.2 Reviews software posted on the sftp site.

3.5.3 Reviews the SIL for completeness.

3.5.4 Notifies the appropriate SD, SCME, and the involved Expert Analysts (EAs)/SMEs that the SIL has been updated.

3.6 CCP Records Custodian

3.6.1 Receives, processes, and maintains all records generated by this procedure in accordance with CCP-QP-008, *CCP Records Management*.

3.7 End User (Only for CCP Software)

3.7.1 Performs the testing.

4.0 PROCEDURE

4.1 Software Evaluation

NOTE

A software evaluation must be done for initial software development or modification that may change the software baseline.

NOTE

Any personnel involved with developing, maintaining, using, or installing software used by CCP will follow the requirements of this SQAP, including verification that the software in use is listed on the SIL. The SPM will make notifications upon operational use approval and changes to the SIL.

Initiator

- 4.1.1 **IF** software has been previously categorized proceed to the applicable section of the SQAP. **IF NOT**, **THEN GO TO** section 4.1.2.
- 4.1.2 Evaluate the software in accordance with Attachment 1, print name, sign, and date Attachment 1, **AND** obtain the SCME's printed name, signature, and date.
- 4.1.3 **IF** the software is **NOT** exempt, **THEN** maintain the completed Attachment 1 with applicable software documentation, **AND GO TO** the applicable Section of this SQAP.
- 4.1.4 **IF** the software is exempt (Category 6), **THEN** document basis for exemption in Block 7 of Attachment 1.
- 4.1.5 **IF** the software is exempt (Category 6), **THEN** transmit the completed Attachment 1 to the SCME in accordance with CCP-QP-008.

NOTE

Some Firmware is exempt from the requirements of this SQAP (see Section 1.2.6).

SCME

- 4.1.6 Update the IDC to reflect the addition of the new exempt software.

- 4.1.7 Notify the appropriate Initiator/SPM the evaluation has been completed and the software was determined to be exempt.
- 4.1.8 Place the completed Attachment 1 into the CCP SCM Records file.
- 4.1.9 Ensure the SIL has been updated.

SPM

- 4.1.10 Review the SIL for completeness.

4.2 Software

Initiator

- 4.2.1 Evaluate software in accordance with Section 4.1.
- 4.2.2 **IF** the request is for a modification to an existing Software, **THEN GO TO** Section 4.2.43.
- 4.2.3 **IF** the software is for new Non-Qualified Supplier or Safety Software, **THEN GO TO** Section 4.2.4. **IF NOT,** **THEN GO TO** Section 4.2.8.
- 4.2.4 Develop a project-Specific SQAP that addresses the elements in Section 1.11, and that establishes how the documentation requirements in Section 5.1.1[E] and 5.1.1[F] will be completed, **AND** forward to SCME for review.

SCME

- 4.2.5 Review and approve the project-specific SQAP to verify that it meets the requirements of CCP-QP-022, *CCP Software Quality Assurance Plan*.
- 4.2.6 **IF** there are Software Review Action Items that need to be resolved as a result of the project-specific SQAP review, **THEN** initiate and complete Attachment 4, Software Review Action Item (see Section 4.5).
- 4.2.7 **IF** there are NO Software Review Action Items that need to be resolved as a result of the SQAP review, **THEN** forward the SQAP to the initiator.

Initiator

4.2.8 Initiate Attachment 2 by obtaining an SCO number or SCO addendum number, as applicable, from the SCME, **AND** complete Blocks 1 through 11.

SCME

[A] Obtain SCO number or SCO addendum from the IDC.

4.2.9 **IF** COTS, Applications within COTS, or Qualified Supplier Software, record N/A for blocks 12a through 12c on Attachment 2 and forward to the SD,
THEN GO TO step 4.2.11. **IF NOT,**
THEN Go TO step 4.2.10.

SD

4.2.10 **IF** Non-Qualified Supplier, Safety, or CCP Software,
THEN develop software Requirements Document (Section 1.12), software Design Document (Section 1.13), and code, as applicable,
AND complete blocks 12a through 12c on Attachment 2.

[A] For each review, document the review by obtaining participant's printed name, signature, and date of review.

[B] **IF** there are Software Review Action Items that require resolution as a result of the Requirement, Design, or Code review,
THEN check YES in the appropriate block, and for each review complete an Attachment 4 **AND** attach it to Attachment 2.
IF NO Software Review Action Items are needed,
THEN check NO in the appropriate block for each review that did not need an Attachment 4.

4.2.11 Upon receipt or development of user documentation, evaluate to determine if it is suitable for the intended use of user documentation (see Section 1.14).

4.2.12 Print name, sign, and date Block 13 of Attachment 2 after completing the user documentation evaluation.

4.2.13 Develop Test Plan in accordance with Section 1.15, using the user documentation, functional description of software, and appropriate knowledgeable personnel.

4.2.14 Forward, as applicable, Attachment 1, Attachment 2, SQAP, Requirements document, Design document, code, user documentation, and test plan to the SCME for adequacy and completeness review.

SCME

4.2.15 Review and approve Test Plan in conjunction with SD, Tester, and appropriate SPM, **AND** complete Block 14 of Attachment 2.

4.2.16 **IF** there are Software Review Action Items that require a resolution as a result of the Test Plan review,
THEN check YES in Block 14 of Attachment 2, initiate and complete Attachment 4, **AND** attach to Attachment 2.
IF there are no Software Review Action Items,
THEN check NO.

4.2.17 Forward all documentation to SD.

SD

4.2.18 Arrange for installation of the software for testing, as applicable.

4.2.19 Identify the testing to be performed by marking the appropriate boxes in Block 15 of Attachment 2.

4.2.20 Verify that all associated documentation is attached to Attachment 2; print name, sign and date Block 15 of Attachment 2; **AND** forward the data package to the Tester.

NOTE

Installation/integration tests are performed per each installation/integration of the software with hardware, data, or other components. Multiple operating systems and work stations may be listed in Block 16 of Attachment 2 for the same software and version at specific sites. An additional sheet may be attached if there is not enough room in Block 16.

NOTE

For CCP software applications there should be at least one tester that will be the End User for that software. Tests performed by the End User may be a subset of all tests identified in the test plan. The test plan SHALL identify which tests are to be performed by the End User.

Tester

4.2.21 Perform Test as outlined in the Test Plan.

4.2.22 Determine if the results of the test are satisfactory.

4.2.23 **IF** the test results are satisfactory,
THEN document the test results, attach the Test Report, sign and date Block 15 of Attachment 2, **AND** proceed to step 4.2.25.

4.2.24 **IF** the test results are **NOT** satisfactory,
THEN document the test results, including errors and resolutions,
AND determine if integration of the hardware, data, and other components need to be redone **OR** if hardware, data, and other components need to be replaced.

4.2.25 Upon determination of the issue complete a Software Review Action Item (Attachment 4), check YES in Block 15 of Attachment 2, **AND** repeat steps 4.2.13 through 4.2.21.

4.2.26 Print name, sign, and date Block 15 of Attachment 2.

4.2.27 Verify that all associated Test documentation is attached, **AND** forward the data package to the SD.

SD

4.2.28 Complete Block 16 of Attachment 2, as applicable.

4.2.29 Review the data package, **AND** verify that all of the required documentation is accurate and complete.

4.2.30 Print name, sign, and date on Block 17 of Attachment 2 documenting operational use approval and document validation, **AND** forward data package to SCME.

SCME

4.2.31 Review the data package, **AND** verify that all of the required documentation is accurate and complete.

4.2.32 Print name, sign, and date on Block 17 of Attachment 2 documenting operational use approval and document validation, **AND** forward data package to the appropriate SPM.

SPM

4.2.33 Review the data package, complete Block 17 of Attachment 2 documenting operational use approval and document validation, **AND** notify the appropriate SD and SCME in Block 17 of Attachment 2, as well as the involved EAs/SMEs of operational use approval.

4.2.34 Submit the data package to SCME in accordance with CCP-QP-008.

SCME

4.2.35 Update the IDC.

4.2.36 Update or verify that the SIL has been updated.

4.2.37 Post software, as applicable, on the sftp site unless it has been determined to be proprietary (see Section 1.9).

4.2.38 Notify the appropriate SPM when the SIL has been updated.

4.2.39 Submit the data package to the Records Custodian in accordance with CCP-QP-008.

Records Custodian

4.2.40 Receive, process, and maintain all records generated by this procedure in accordance with CCP-QP-008.

SPM

4.2.41 Review the SIL for completeness.

4.2.42 Review the software posted on the sftp site, if applicable.

- [A] Notify the appropriate SD and SCME in Block 17 of Attachment 2, as well as the involved EAs/SMEs that the SIL has been updated and is accurate.

4.2.43 Modification to Existing Software

Initiator

4.2.44 Initiate Attachment 3 by obtaining an SPRCR number from the SCME, **AND** complete Blocks 1 through 9 in conjunction with the SD to document reason for modification.

SCME

- [A] Obtain new SPRCR number from the IDC.

4.2.45 Determine if the modification is considered a minor change in conjunction with the SD, Tester, SCME, and SPM.

4.2.46 Document decision and basis for minor change in Block 10.

4.2.47 **IF** the change is considered a minor change, **THEN** document the SCME's acceptance by obtaining their printed name, signature, and date in Block 10.

4.2.48 Document corrective action taken by completing Block 11 **AND** record N/A for Block 12.

4.2.49 **IF** a modification is **NOT** considered a minor change, **THEN** document approval in Block 13 by obtaining the SCME's and SPM's printed name, signature and date, and complete steps 4.2.8 through 4.2.42, as applicable.

4.2.50 **IF** a modification is considered a minor change, **THEN** perform the change as outlined on Attachment 3 and notify the SCME that the change has been made, forward Attachment 3 for approval.

4.2.51 **IF** software is Applications within COTS, **THEN** forward corrected software to SCME to post to sftp site.

SCME

- 4.2.52 Review the data package and verify that all required documentation is accurate and complete.
- 4.2.53 Update the IDC to reflect the minor change.
- 4.2.54 Ensure the SIL has been updated, if applicable.
- 4.2.55 **IF** software is Application within COTS,
THEN post corrected software to the appropriate folder on the sftp site.
- 4.2.56 Approve the minor change by printing name and signing Block 13 of Attachment 3.
- 4.2.57 Forward the data package and Attachment 3 to the SPM for approval.

SPM

- 4.2.58 Verify the minor change has been implemented and the SIL and sftp site have been updated, as applicable.
- 4.2.59 Approve the minor change by printing name and signing Block 13 of Attachment 3.
- 4.2.60 Submit data package to Records Custodian.

Records Custodian

- 4.2.61 Receive, process, and maintain all records generated by this procedure in accordance with CCP-QP-008.

4.3 Additional Software Installations

Initiator

- 4.3.1 Initiate Attachment 2 by obtaining an SCO addendum number from the SCME, **AND** complete Blocks 1 through 11.

SCME

- [A] Obtain SCO Addendum number from the IDC.
- 4.3.2 Complete steps 4.2.9 through 4.2.42, as applicable.

4.4 Software Review Action Items

NOTE

This section explains Attachment 4. Attachment 4 is used to report Software Review Action Items.

SCME, Tester, OR SD

- 4.4.1 Initiate a Software Review Action Item when an issue arises while creating, using, or reviewing the requirements document, design document, code, test plan, or test report by completing Blocks 1 through 6 on Attachment 4.
- 4.4.2 Determine and document the recommended action in Block 7 of Attachment 4.
- 4.4.3 Document final resolution by completing Block 8 of Attachment 4.
- 4.4.4 To indicate approval, obtain the appropriate signatures by printing name, signing, and dating Block 9 of Attachment 4 upon resolution of the Software Review Action Items as follows:
 - Minimum approval signatures required for Software Review Action Items regarding the SQAP review: Initiator, SD, and SPM.
 - Minimum approval signatures required for Software Review Action Items regarding the requirements review: Initiator, SD, and SPM.
 - Minimum approval signatures required for Software Review Action Items regarding the Design review: SD and at least one other technical reviewer.
 - Minimum approval signatures required for Software Review Action Items regarding the Code review: SD and at least one other technical reviewer.
 - Minimum approval signatures required for Software Review Action Items regarding the Test Plan review: SD, Tester, and at least one other technical reviewer.
 - Minimum approval signatures required for Software Review Action Items regarding the Testing review: SD, Tester, and at least one other technical reviewer.

4.5 Retirement

Initiator

4.5.1 Determine if the software:

- No longer provides a function used or required by CCP
- Will be replaced by different software
- Is obsolete and will **NOT** be replaced

4.5.2 **IF** none of the criteria in step 4.5.1 are met,
THEN the software **CAN NOT** be retired.

4.5.3 **IF** any of the criteria in step 4.5.1 are met,
THEN initiate Attachment 3 by obtaining an SPRCR number from the SCME, **AND** complete Blocks 1 through 6, record N/A in Blocks 7 through 11.

SCME

[A] Obtain SPRCR number from the IDC.

4.5.4 Document the justification for the retirement of the software in Block 12 of Attachment 3, **AND** print name, sign, and date Block 12 and forward to the SPM.

SPM

4.5.5 Print name, sign and date Block 12 of Attachment 3 to indicate approval to retire the software.

Initiator

4.5.6 Ensure all copies of the software are removed from the field including the sftp site, **AND** are deleted from all computers and workstations.

SCME

[A] Remove application within COTS software from sftp site.

SCME

4.5.7 Verify all copies of the software have been removed from all computers and workstations including the sftp site.

4.5.8 Update the IDC.

4.5.9 Ensure the SIL has been updated.

4.5.10 Notify the appropriate SPM that the SIL has been updated and the software has been removed from all computers and workstations including the sftp site.

4.5.11 Print name, sign and date Block 13 of Attachment 3 indicating final approval of software retirement.

SPM

4.5.12 Verify the software has been removed from all computers and workstations including the sftp site.

4.5.13 Review the SIL for completeness.

4.5.14 Notify the appropriate SD and Initiator as well as any appropriate personnel that the software has been retired and the SIL has been updated to reflect the change.

4.5.15 Print name, sign and date Block 13 of Attachment 3 indicating final approval of software retirement.

4.5.16 Submit Attachment 3 to Records Custodian in accordance with CCP-QP-008.

CCP Records Custodian

4.5.17 Receive, process, and maintain all records generated by this procedure in accordance with CCP-QP-008.

4.6 Software Removal

NOTE

Software removal is not retirement. Removal consists of taking software off of a specific workstation(s), but software will still be used and supported at a specific site. Software removal may be documented on the same SCO used for new software development, provided the software name and version are the same.

Attachment 2, using the original SCO number, is completed for software removal of the same software and version and hardware model number, serial number and operating system as the original SCO. Workstations from which software has been removed will be superseded on the SIL, based on the information in Attachment 2, but removal history is not required to be documented on the SIL.

Initiator

- 4.6.1 Determine if the software needs to be removed from a workstation.
- 4.6.2 Initiate Attachment 2 by obtaining an SCO Addendum number from the SCME, completing Blocks 1 through 11, **AND** record N/A for Blocks 12a through 14.

SCME

[A] Obtain SCO Addendum number from the IDC.

- 4.6.3 Check NO in Block 15.
- 4.6.4 Document workstations in which software will be removed in Block 16.

Initiator, SD, SPM

- 4.6.5 Complete Block 17, and print name, sign, and date; obtain other signatures, as required; **AND** record N/A for any remaining signature blocks of Attachment 2.
- 4.6.6 Ensure the software is removed from the appropriate workstation(s).
- 4.6.7 Transmit Attachment 2 to the SCME in accordance with CCP-QP-008.

SCME

4.6.8 Update the IDC.

4.6.9 Ensure the SIL has been updated.

4.6.10 Notify the appropriate SPM that the SIL has been updated.

4.6.11 Submit data package to Records Custodian in accordance with CCP-QP-008.

CCP Records Custodian

4.6.12 Receive, process, and maintain all records generated by this procedure in accordance with CCP-QP-008.

SPM

4.6.13 Review the SIL for completeness.

4.6.14 Notify the appropriate SD and SCME as well as the involved EAs/SMEs that the SIL has been updated.

5.0 RECORDS

- 5.1 Records generated during the performance of this SQAP are maintained as QA records in accordance with CCP-QP-008. The records are the following:

NOTE

Software and associated documentation procured by CCP from active QSL suppliers, who are also subcontractors to CCP for other services, will be controlled and maintained under the supplier's approved Software QA Program.

5.1.1 QA/Non-Permanent

- [A] Exempt Software (Category 6)
 - [A.1] Attachment 1, Software Evaluation Checklist
- [B] COTS Software (Category 1)
 - [B.1] Attachment 1, Software Evaluation Checklist
 - [B.2] Attachment 2, Software Change Order
 - [B.3] Attachment 3, Software Problem Reporting and Change Request (SPRCR), if applicable
 - [B.4] Attachment 4, Software Review Action Item, if applicable
 - [B.5] User Documentation
 - [B.6] Test Documentation
 - [B.7] Associated Supporting Documentation, if applicable
- [C] Application within COTS (Category 2)
 - [C.1] Attachment 1, Software Evaluation Checklist
 - [C.2] Attachment 2, Software Change Order
 - [C.3] Attachment 3, Software Problem Reporting and Change Request (SPRCR), if applicable
 - [C.4] Attachment 4, Software Review Action Item, if applicable

- [C.5] Test Documentation
- [C.6] A listing of the software code (i.e., details of formulas, file/table/cell references, and/or macros)
- [C.7] Documentation to demonstrate by hand or other independent calculations that the specific application provides the correct results for the specified range of input parameters
- [C.8] Associated Supporting Documentation, if applicable
- [D] Qualified Supplier Software (Category 3)
 - [D.1] Attachment 1, Software Evaluation Checklist
 - [D.2] Attachment 2, Software Change Order
 - [D.3] Attachment 3, Software Problem Reporting and Change Request (SPRCR), if applicable
 - [D.4] Attachment 4, Software Review Action Item, if applicable
 - [D.5] User Documentation
 - [D.6] Test Documentation
 - [D.7] Associated Supporting Documentation, if applicable
- [E] Non-Qualified Supplier Software (Category 4)
 - [E.1] Attachment 1, Software Evaluation Checklist
 - [E.2] Attachment 2, Software Change Order
 - [E.3] Attachment 3, Software Problem Reporting and Change Request (SPRCR), if applicable
 - [E.4] Attachment 4, Software Review Action Item, if applicable
 - [E.5] Software Quality Assurance Plan
 - [E.6] Requirements Documents, per SQAP, if applicable

- [E.7] Validation and Verification Documents, per SQAP, if applicable
- [E.8] Design Documents, per SQAP, if applicable
- [E.9] User Documentation
- [E.10] Test Documentation
- [E.11] Associated Supporting Documentation, if applicable
- [F] Safety Software (Category 7)
 - [F.1] Attachment 1, Software Evaluation Checklist
 - [F.2] Attachment 2, Software Change Order
 - [F.3] Attachment 3, Software Problem Reporting and Change Request (SPRCR), if applicable
 - [F.4] Attachment 4, Software Review Action Item, if applicable
 - [F.5] Software Quality Assurance Plan
 - [F.6] Requirements Documents, per SQAP, if applicable
 - [F.7] Validation and Verification Documents, per SQAP, if applicable
 - [F.8] Design Documents, per SQAP, if applicable
 - [F.9] User Documentation
 - [F.10] Test Documentation
 - [F.11] Associated Supporting Documentation, if applicable
- [G] CCP Software (Category 5)
 - [G.1] Attachment 1, Software Evaluation Checklist
 - [G.2] Attachment 2, Software Change Order

- [G.3] Attachment 3, Software Problem Reporting and Change Request (SPRCR), if applicable
- [G.4] Attachment 4, Software Review Action Item, if applicable
- [G.5] Requirements Documents
- [G.6] Validation and Verification Documents
- [G.7] Design Documents
- [G.8] User Documentation
- [G.9] Test Documentation
- [G.10] Associated Supporting Documentation, if applicable
- [H] Integrated Data Center (IDC)
 - [H.1] Software Change Order Log
 - [H.2] Software Problem Reporting and Change Request Log
 - [H.3] Addendum Log
 - [H.4] Exempt Software Log
 - [H.5] Software Inventory List

Attachment 1 – Software Evaluation Checklist

1. Initiator: (Print Name)	2. Date:	3. Site:
4. Software Name:	5. Software Version:	6. Process Affected:
7. Purpose/function of software (including whether software is used for data collection, design, analysis or scientific reasons):		
8. If any of the answers to c through h are "YES", then Section 4.3 of this SQAP is applicable.		
a. Is this System Software as defined in Section 1.2.1?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
b. Can the software output adversely impact certification? If YES, continue to Block 8c. If NO, this software is exempt from the requirements of this SQAP. N/A Blocks c through g and complete Block 9.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
c. Is this COTS Software as defined in Section 1.2.3 [A]? If YES, N/A Blocks d through h, and complete Block 9. If NO, continue to Block 8d.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
d. Is this an application developed within COTS or System Software as defined in Section 1.2.3 [B]? If YES, N/A Blocks e through h, and complete Block 9. If NO, continue to Block 8e.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
e. Is this Qualified Supplier Software as defined in Section 1.2.3 [C]? If YES, N/A Block f through h and complete Block 9. If NO, continue to Block 8f.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
f. Is this Non-Qualified Supplier Software as defined in Section 1.2.3 [D]? If YES, N/A Block g through h and complete Block 9. If NO, continue to Block 8g	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
g. Is this Safety Software as defined in Section 1.2.4? If YES, N/A Block g and complete Block 9. If NO, continue to Block 8h.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
h. Is this CCP Software as defined below? (Defined in Section 1.2.5). If YES, complete Block 9.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
9. Evaluation performed by:		Approved by:
Initiator Print Name/Sign _____	Date _____	SCME Print Name/Sign _____
		Date _____

Attachment 2 – Software Change Order

1. SCO #:	2. Addendum #: <input type="checkbox"/> N/A	3. Page ___ of ___
4. Initiator _____ <small>Print Name</small>		5. Request Date _____
6. Software Name	7. Version	
8. Description of software or modification to be performed: 		
9. Process Affected _____		10. Site _____
11. New Development <input type="checkbox"/> Yes <input type="checkbox"/> No Modification <input type="checkbox"/> Yes <input type="checkbox"/> No		Additional Installation <input type="checkbox"/> Yes <input type="checkbox"/> No Removal <input type="checkbox"/> Yes <input type="checkbox"/> No
12a. Requirements Review <input type="checkbox"/> N/A		Software Review Action Items <input type="checkbox"/> Yes <input type="checkbox"/> No
SD Print Name/Sign _____	Date _____	Requirements Reviewer Print Name/Sign _____
Requirements Reviewer Print Name/Sign _____	Date _____	Requirements Reviewer Print Name/Sign _____
12b. Design Review <input type="checkbox"/> N/A		Software Review Action Items <input type="checkbox"/> Yes <input type="checkbox"/> No
SD Print Name/Sign _____	Date _____	Design Reviewer Print Name/Sign _____
Design Reviewer Print Name/Sign _____	Date _____	Design Reviewer Print Name/Sign _____
12c. Code Review <input type="checkbox"/> N/A		Software Review Action Items <input type="checkbox"/> Yes <input type="checkbox"/> No
SD Print Name/Sign _____	Date _____	Code Reviewer Print Name/Sign _____
13. User Documentation Evaluation <input type="checkbox"/> N/A		
SD Print Name/Sign _____	Date _____	
14. Test Plan Review <input type="checkbox"/> N/A		Software Review Action Items <input type="checkbox"/> Yes <input type="checkbox"/> No
SCME Print Name/Sign _____	Date _____	

Attachment 2 – Software Change Order (Continued)

SCO #:	Addendum #:	Page ____ of ____
15. Testing <input type="checkbox"/> Yes <input type="checkbox"/> No Software Review Action Items <input type="checkbox"/> Yes <input type="checkbox"/> No		
	Installation Test <input type="checkbox"/> Yes <input type="checkbox"/> No	Regression Test <input type="checkbox"/> Yes <input type="checkbox"/> No
	Alternate Test Method <input type="checkbox"/> Yes <input type="checkbox"/> No	Integration Test <input type="checkbox"/> Yes <input type="checkbox"/> No
	Functionality Test <input type="checkbox"/> Yes <input type="checkbox"/> No	Hand Calculations <input type="checkbox"/> Yes <input type="checkbox"/> No
Any modification to development documentation as a result of testing activities must be identified by an SCO addendum.		
SD Print Name/Sign _____	Date _____	Tester Print Name/Sign _____
		Date _____
Tester Print Name/Sign _____	Date _____	Tester Print Name/Sign _____
		Date _____
If used for additional installation of the same software and version as on an original SCO, list the software name, version; operating system, version; and hardware manufacture, model number and serial number.		
16. Installation/Removal		
Software	Software Version	Software Development Date (Applications within COTS only) <input type="checkbox"/> N/A
Application	Application Version	
Database	Database Version	
Operating System (OS)	OS Version	
Hardware Mfr	Hardware Model #	Hardware Serial #
SD Print Name/Sign _____	Date _____	
17. Operational Use Approvals and Document Validation		
SD Print Name/Sign _____	Date _____	SPM Print Name/Sign _____
		Date _____
SCME Print Name/Sign _____	Date _____	

Attachment 3 – Software Problem Reporting and Change Request (SPRCR)

1. SCO #:	2. SCO Addendum #	3. Report #:	4. Report Date:
5. Software Name:	6. Software Version:		
7. Problem/Suggestion:			
8. Research Analysis:			
9. Description of System Impact:			
10. Minor Change: <input type="checkbox"/> Yes <input type="checkbox"/> No			
Reason:		SCME Print Name/Sign	Date
11. Corrective Action (Obtain SCO # or SCO Addendum, identify the SCO # in this block, and complete the SCO #):			
12. Software Retirement <input type="checkbox"/> N/A			
Justification for Retirement:			
Initiator Print Name/Sign	Date	SPM Print Name/Sign	Date
13. Approvals (Date Indicates that resolutions were completed):			
SCME Print Name/Sign	Date	SPM Print Name/Sign	Date

Attachment 4 – Software Review Action Item

1. SCO #:	2. Addendum #:	3. Initiation Date:	4. Page ____ of ____
5. <input type="checkbox"/> SQAP <input type="checkbox"/> Requirements <input type="checkbox"/> Design <input type="checkbox"/> Code <input type="checkbox"/> Test Plan <input type="checkbox"/> Testing			
6. Statement of Issue:			
7. Recommended Action:			
8. Final Resolution to Action Item:			
9. Approvals (Date Indicates that resolutions were completed):			
_____	_____	_____	_____
Initiator Print Name/Sign	Date	SPM Print Name/Sign	Date
_____	_____	_____	_____
SD Print Name/Sign	Date	Reviewer Print Name/Sign	Date

Attachment 5 – Definitions

Acceptance Criteria	The criteria that a system or component must satisfy in order to be accepted by a user, customer, or other authorized entity.
Acceptance Testing	Formal testing conducted to determine whether or not a system satisfies its acceptance criteria and to enable the customer to determine whether or not to accept the system, or formal testing conducted to enable a user, customer, or other authorized entity to determine whether to accept a system or component.
Baseline	Software that has been formally reviewed and agreed upon, and that can only be changed through formal change control procedures.
Change Control Board	The Change Control Board is a collection of technical, management, and administrative experts assigned the authority and responsibility to review and authorize developments and change request to CCP Software.
Code	One or more computer programs, or part of a computer program, expressing in programming language.
Code Review	A review during which software code is reviewed by another software developer for comment or approval.
Commercial Off the Shelf (COTS)	Software products that are general purpose, ready-made and available for sale to the general public.
Computer Program	A sequence of instructions and data definitions that enable computer hardware to perform computational or control functions.
Configuration Item	A collection of hardware or software elements treated as a unit for the purpose of configuration control.
Configuration Control	The process of identifying and defining the configuration items in a system, controlling the release and change of these items throughout the system life cycle, and the recording and reporting of the status of configuration items and change requests.
Configuration Identification	An element of configuration management, consisting of selecting the configuration items for a system and recording their functional physical characteristics in technical documentation.
Configuration Management	A discipline applying technical and administrative direction and surveillance to identify and document the functional and physical characteristics of a configuration item, control changes to those characteristics, record and report change processing and implementation status, and verify compliance with specified requirements.
Design	The process of defining the architecture, components, interfaces and other characteristics of a system.
Design Review	A documented evaluation of design output during the design process to determine the design adequacy and the conformance to specified acceptance criteria.
Error	A discrepancy between a computed, observed or measured value or condition and the true, specified or theoretically correct value or condition.
Firmware	Vendor supplied software that is included as an integral part of an instrument (e.g., programmed in a ROM chip) and cannot be modified by another party.
Implementation	When a software product is created with program language from design documentation and debugged.
Installation and Checkout	When a software product is integrated into its operational environment and tested in this environment to ensure that it performs as required.

Attachment 5 – Definitions (Continued)

Library Files	Electronic data files used by computer software as sources of information required for the software to perform its intended function. They are primarily associated with software for the NDA characterization method (e.g., nuclide library files). Library files are created and maintained by the supplier of the software, under the qualified supplier's program. They are controlled under this SQAP when they are distributed for field installation on production equipment.
Minor Change	A minor change is any change that cannot affect the data quality of the application. Examples of this would be changing screen colors, adding a corporate logo, correcting grammar, changing a control property, search criteria change, etc. This will be determined by consultation between the SCME, SD, and/or SPM.
Portability	The ease with which software can be transferred from one computer system or environment to another.
Requirement	A condition or capability needed by a user to solve a problem or achieve an objective that must be met or processed by a system or system component.
Requirements review	A review during which the requirements for a system, hardware item or software item are presented to project personnel, managers, users, customers or other interested parties for comment or approval.
Software	Computer programs, procedures, rules, and associated documentation and data pertaining to the operation of a computer system.
Software Life Cycle	The period of time that starts when a software product is conceived and ends when the software product is no longer available for routine use. The software life cycle typically includes a requirements phase, a design phase, an implementation phase, a test phase, an installation and checkout phase, an operation and maintenance phase and sometimes a retirements phase.
Software Quality Assurance Plan	A plan for the development of software products necessary to provide adequate confidence that software conforms to established requirements.
Software Validation	The process of test and evaluation of the completed software to ensure compliance with software requirements.
Software Verification	The process of determining whether or not the product of a given phase of the software development cycle fulfills the requirements imposed by the previous phase.
System Software	Software which is used exclusively in the preparation, installation, or operation of executable software applications.
Test, Alternate Method	A test method, which differs from the original test, which is performed to verify the correctness of the original test.
Testing	The process of exercising or evaluating a system or system component by manual or automated means to verify that it satisfies specified requirements or to identify differences between expected and actual results.
Testing, Functional	Testing that ignores the internal mechanism of a system or component and focuses solely on the outputs generated in response to selected inputs and execution conditions. Testing that is employed to determine if software meets the intended specifications and functional requirements laid out in your requirements and design documentation. Testing that is not concerned with the internal workings of the system, but concentrates on the outputs generated from the system. This type of testing cannot be performed unless you have the requirements and design documentation for the software.

Attachment 5 – Definitions (Continued)

Testing, Initial	The first group or individual to test the system performs the initial test. For vendor-supplied software, the vendor will always be the entity to perform the initial test.
Testing, Integration	Testing in which software components, hardware components or both are combined and tested to evaluate the interaction between them.
Testing, Regression	Selective retesting of a system or component to verify that modifications have not caused unintended effects and that the system or component still complies with its specified requirements. This type of testing ensures that no other previously working functions have failed as a result of the reparations and that newly added features have not created any problems. Regression testing is initiated after a programmer has attempted to fix a recognized problem or has added source code to a program that may have inadvertently introduced errors. It is a quality control measure to ensure that the newly modified code still complies with its specified requirements and that unmodified code has not been affected by the maintenance activity.
Testing, Unit	Testing of individual hardware or software units or groups of related units.
Test Case	A specific set of test data and associated procedures developed for a particular objective such as to exercise a particular program path or to verify compliance with a specific requirement.
Test Plan	A document describing the approach to be taken for intended testing activities. The plan typically identifies the items to be tested, the testing to be performed, test sequences, personnel requirements, and evaluation criteria.
Traceability	The ability to trace the history, application and location of an item, data or sample using recorded documentation. The degree to which a relationship can be established between two or more products of the development process, especially products having a predecessor-successor or master-subordinate relationship to one another; for example, the degree to which the requirements and design of a given software match.
User Documentation	Documentation describing the way in which a system or component is to be used to obtain desired results. User documentation should be sufficient to allow any qualified user to install and run the software and properly respond to errors.
User Manual	A document that presents the information necessary to employ a system or component to obtain desired results.
Verification and Validation	The process of determining whether the requirements for as system or component are complete and correct, the products of each development phase fulfill the requirements or conditions imposed by the previous phase and the final system or component complies with specified requirements.

CCP-QP-028

Revision 15

CCP Records Filing, Inventorying, Scheduling, and Dispositioning

EFFECTIVE DATE: 01/22/2013

Mike Ramirez

PRINTED NAME

APPROVED FOR USE

RECORD OF REVISION

Revision Number	Date Approved	Description of Revision
3	08/20/2002	Added steps 4.3.3 through 4.3.6. Added a Table of Contents. Added a Record of Revision. Other editorial changes.
4	10/24/2002	Added new Step 3.1.2 and revised Step 4.2.4.[B] making the Project Manager responsible for signing RIDS; added as result of a comment during the SRS Recertification Audit.
5	09/25/2003	Separated electronically fillable forms and updated references in procedure. Added responsibilities for CCP personnel. Other editorial changes.
6	07/25/2006	Revised to change the CCP Project Manager's responsibility to the CCP Project Support Manager.
7	04/18/2007	Revised to change CCP Project Support Manager responsibilities to the CCP Program Development Manager.
8	09/11/2007	Revised to make minor editorial changes and to replace Attachment 1, Records Inventory and Disposition Schedule with new DOE form, DOE F 1324.10 (06-96).
9	02/24/2009	Revised to incorporate changes to titles of personnel and names for organizations. Also, a step was added to Section 4.2 (step 4.2.5) to complete the process performed. Section 4.4 was deleted since the requirements are not applicable to the CCP scope of work (they are implemented at the RCT level).
10	04/08/2010	Revised to incorporate changes to Attachment 2, Instructions for Filling Out the Records Inventory and Disposition Schedule.
11	05/19/2010	Revised to bring instructions regarding location in Attachment 4, Instructions for Filling Out the Records Inventory and Disposition Schedule, in line with current practice.
12	11/09/2010	Revised to remove examples form and re-number remaining attachments and update Attachment 2.
13	09/09/2011	Revised to correct reference section of the procedure and remove a reference that is no longer active.

RECORD OF REVISION

Revision Number	Date Approved	Description of Revision
14	01/16/2012	Revised to bring into line with the Waste Isolation Pilot Plant (WIPP) Inventory Worksheets and general editing of the procedure.
15	01/22/2013	Revised to incorporate Nuclear Waste Partnership (NWP) transition changes.

TABLE OF CONTENTS

1.0	PURPOSE.....	5
1.1	Scope.....	5
2.0	REQUIREMENTS.....	6
2.1	References	6
3.0	RESPONSIBILITIES.....	7
3.1	CCP Manager or Designee.....	7
3.2	Lead Records Custodian	7
3.3	WIPP Records Management Services (WRMS).....	7
4.0	PROCEDURE.....	8
4.1	Developing a New Inventory and RIDS	8
4.2	RIDS Review and Approval	8
4.3	Revising and Reviewing the RIDS	9
5.0	RECORDS.....	10

1.0 PURPOSE

This procedure provides direction and instruction for generating, issuing, and using a Records Inventory and Disposition Schedule (RIDS).

1.1 Scope

The procedure applies to Central Characterization Program (CCP), CCP Manager, and Records Custodians responsible for inventory, scheduling, and disposing of CCP records under their cognizance, regardless of media, in order to document the activities related to the CCP.

2.0 REQUIREMENTS

2.1 References

Baseline Documents

- 44 USC 3301, *Definition of Records*
- DOE/CBFO-94-1012, *U.S. Department of Energy Carlsbad Field Office (CBFO) Quality Assurance Program Document (QAPD)*

Referenced Documents

- EA15RM3002-1, *WIPP Records Inventory Work Sheet*
- EA15RM3002-2, *Records Inventory and Disposition Schedule (RIDS)*
- WP 15-RM3002, *Records Filing, Inventorying, Scheduling, and Dispositioning*
- CCP-QP-008, *CCP Records Management*

3.0 RESPONSIBILITIES

3.1 CCP Manager or Designee

3.1.1 Approves the Records Inventory and Disposition Schedule (RIDS).

3.2 Lead Records Custodian

3.2.1 Develops new RIDS.

3.2.2 Performs annual review and revision of RIDS.

3.3 WIPP Records Management Services (WRMS)

3.3.1 Reviews the RIDS and associated WIPP Records Inventory Worksheets.

3.3.2 Provides final approval signature for the RIDS.

4.0 PROCEDURE

4.1 Developing a New Inventory and RIDS

Lead Records Custodian

NOTE

The Lead Records Custodian may request assistance from WIPP Records Management Services (WRMS) for performance of steps 4.1.1 and 4.1.2.

4.1.1 Complete EA15RM3002-1, *WIPP Records Inventory Work Sheet* for each record and non-record series, using the instructions contained in WP 15-RM3002, *Records Filing, Inventorying, Scheduling, and Dispositioning*.

4.1.2 Complete the RIDS on form EA15RM3002-2, *Records Inventory and Disposition Schedule (RIDS)*, using the instructions contained in WP 15-RM3002.

4.2 RIDS Review and Approval

Lead Records Custodian

4.2.1 Forward the draft RIDS and all EA15RM3002-1 to WRMS for review and comments.

4.2.2 **IF** WRMS returns the RIDS with comments,
THEN resolve the comments.

4.2.3 **IF** notified by WRMS that the RIDS is acceptable,
THEN print out a final copy of the RIDS for signatures.

4.2.4 Obtain the required signatures in Block 5, RIDS, as follows:

[A] Prepared by - Signature of the designated trained Lead Records Custodian who prepared the RIDS

[B] Approved by - Signature of the CCP Manager or Designee

[C] Record Liaison Officer - Enter "N/A"

4.2.5 Submit signed RIDS to WRMS for final approval by obtaining WRMS signature.

4.3 Revising and Reviewing the RIDS

Lead Records Custodian

4.3.1 Review files annually, at a minimum.

NOTE

Take into consideration organization changes that may affect record series custodianship, location, or when new record series are created.

4.3.2 Check all record and non-record material on the current RIDS.

4.3.3 **IF** a new series is added,
THEN complete an EA15RM3002-1, with the instructions in
WP 15-RM3002, **AND** add the new record series to a draft CCP
RIDS.

4.3.4 **IF** a record series is no longer generated and maintained,
THEN complete an EA15RM3002-1, with the instructions in
WP 15-RM3002, **AND** delete the item on a draft RIDS.

4.3.5 Forward the draft RIDS, **AND** any new EA15RM3002-1 to the
WRMS annually at a minimum.

4.3.6 Follow steps 4.2.2 through 4.2.5.

4.3.7 **IF** an interim RIDS change is needed to make an immediate
change of information on the RIDS,
THEN complete an EA15RM3002-1, with the instructions in
WP 15-RM3002.

4.3.8 Send copy to WRMS and add changes to a draft RIDS to be
submitted in the next RIDS review.

5.0 RECORDS

- 5.1 Records generated during the performance of this procedure are maintained in accordance with CCP-QP-008, *CCP Records Management*. The records are the following:

Non-Quality Assurance

5.1.1 Records Inventory and Disposition Schedule

5.1.2 WIPP Records Inventory Worksheet

CCP-PO-005

Revision 24

CCP Conduct of Operations

EFFECTIVE DATE: 02/11/2014

Mike Ramirez

PRINTED NAME

APPROVED FOR USE

RECORD OF REVISION

Revision Number	Date Approved	Description of Revision
3	02/14/2002	Revised Section 15, updated referencing procedures.
4	07/12/2002	Minor changes to Sections 4.7.1, 4.7.2, and 17.7; a complete rewrite of Section 15; a minor revision to Attachment 1; Added Attachment 2, 3, 4, 5, 6, and 7.
5	08/29/2002	Modified last sentence of step 4.1. Added step 6.2, Rewriting of Section 12.0; Clarification to step 15.2.4 and 17.7, Rewriting of step 15.2.5 and 15.3.4. Addition of Operational Logbooks to Section 20.0. Corrections to Attachment 3, 4, 6 and 7. Replaced Attachment 1.
6	09/12/2002	Revised the definition of a logbook in Section 12.1 based on comments from the ANLE Certification Audit.
7	09/30/2002	Addition to Attachment 2, 3, 4, 5, 6, & 7.
8	12/09/2002	Revised Attachment 3 and 7
9	03/26/2003	Added to Section 12.0, Changes to Attachment 5, 6 and 7
10	07/17/2003	Added Hanford, LANL and LLNL to required reading. Separated electronically fillable form and updated references in procedure.
11	12/08/2003	Updated Sections 2.0, 6.0, 12.0, 15.0, 16.0 and 18.0 for clarification. Deleted references to E-QA, Updated Attachment 8 and added additional records to 20.0.
12	02/25/2005	Change to Section 4.1 and 4.4. Changes to all Attachments. Incorporated changes per OSR Project.
13	03/07/2005	Minor revision to add signature line to Attachment 1. Signature line was inadvertently left out during last revision.
14	02/28/2006	Revised to include a new Section 6.3, Communication of Employee Concerns.
15	07/19/2006	Revised to incorporate the automation of the required reading program and to include the Remote-Handled Program.

RECORD OF REVISION (Continued)

Revision Number	Date Approved	Description of Revision
16	11/16/2006	Revised to implement the Waste Isolation Pilot Plant Hazardous Waste Facility Permit requirements resulting from the Section 311/Remote-Handled (RH) Permit Modification Request (PMR).
17	03/04/2008	Revised to updated title of Section 14 to match DOE Order 5480.19 and to address the Corrective Action Report, ORNL-CCP-CH-RTR-001CR resulting from the CCP Oak Ridge National Laboratories Project Environmental Protection Agency Inspection (EPA-ORNL-CCP-CH-11.07-8).
18	10/30/2008	Revised in response to Department of Energy (DOE) Carlsbad Field Office (CBFO) Corrective Action Report (CAR)-08-023. Also, revised Section 16.2 to separate the Required Reading matrices in Appendix A from CCP-PO-005. They will be maintained by CCP Training in conjunction with responsible management, and the current versions will be posted on the CCP ftp site.
19	10/30/2008	Minor revision to Section 13.0 to clarify that the CCP Transportation personnel perform the independent verification of loading instead of the CCP Transportation Certification Official.
20	07/08/2009	Revised in response to recommendation from the Expert Review Team assessment of Central Characterization Project (CCP) Idaho National Laboratory (INL) Operations.
21	05/26/2010	Revised in response to Corrective Action Report (CAR)-CCP-0012-09. Also moved the controls for Lessons Learned to Section 6.2, and changed the scope of Section 13.0 to address operational logbooks exclusively.
22	06/14/2011	Revised to add detail to Section 6.0 and Section 7.0, and make minor editorial corrections throughout

RECORD OF REVISION (Continued)

Revision Number	Date Approved	Description of Revision
23	02/18/2013	Updated to reflect DOE Order 422.1 throughout. Added language in Sections 17.2 and 17.5 regarding pagination of printed Standing Orders and revised text regarding incorporating Standing Orders into procedures. Revised Section 17.5, and Attachments 5, 6, and 7 in response to CBFO CAR 13-006.
24	02/11/2014	Revised in response to Carlsbad Field Office (CBFO) CAR 14-006 and Standing Order CCP-SO-108. Section 4.1 was clarified regarding Vendor Project Managers (VPMs) responsibility to verify appointment of Visual Examination Experts (VEEs) and a bullet was added to Section 7.2 that describes qualified personnel countersigning characterization results prepared by a trainee.

TABLE OF CONTENTS

1.0 PURPOSE..... 8
1.1 Scope..... 8

2.0 REQUIREMENTS..... 9
2.1 References 9

3.0 RESPONSIBILITIES..... 10

4.0 SHIFT ROUTINES AND OPERATING PRACTICES..... 11
4.1 Status Practices..... 11
4.2 Safety Practices..... 13
4.3 Inspection Tours 14
4.4 Personnel Protection..... 16
4.5 Response to Indications..... 16
4.6 Resetting Protective Devices 16
4.7 Authority to Operate Equipment..... 16
4.8 Shift Operating Bases 18
4.9 Potentially Distractive Written Material and Devices 18

5.0 CONTROL AREA ACTIVITIES..... 19
5.1 Control Area Access 19
5.2 Monitoring the Main Control Panels..... 19
5.3 Control Operator Ancillary Duties 19
5.4 Operation of Control Area Equipment..... 19

6.0 COMMUNICATIONS 20
6.1 Emergency Communications Systems 20
6.2 Lessons Learned 20
6.3 Communication of Employee Concerns..... 21

7.0 ON-SHIFT TRAINING 22
7.1 Adherence to Training Programs 22
7.2 Supervision and Control of Trainees..... 22
7.3 Operator Qualification Program Approval 23
7.4 Training Documentation..... 23

8.0 INVESTIGATION OF ABNORMAL EVENTS, CONDITIONS, AND TRENDS..... 24

9.0 NOTIFICATIONS..... 25

10.0 CONTROL OF EQUIPMENT AND SYSTEM STATUS 26
10.1 Status Change Authorization and Reporting..... 26
10.2 Equipment Locking and Tagging 27
10.3 Operational Limits Compliance 27
10.4 Equipment Deficiency Identification and Documentation 27
10.5 Equipment Post-Maintenance Testing and Return to Service..... 27

11.0 LOCKOUT AND TAGOUTS 28

12.0	INDEPENDENT VERIFICATION.....	29
13.0	LOG KEEPING.....	30
13.1	Logbook.....	30
13.2	Logbook Entries.....	30
13.3	Logbook Corrections.....	31
13.4	Late Entries.....	32
13.5	Logbook Reviews.....	32
13.6	Annual Reconciliation of Operational Logbooks.....	32
14.0	TURNOVER AND ASSUMPTION OF RESPONSIBILITIES.....	33
14.1	Turnover Checklists.....	33
14.2	Document Review.....	33
14.3	Control Panel Walkdown.....	34
14.4	Discussion and Exchange of Responsibility.....	34
14.5	Shift Crew Briefing.....	35
14.6	Relief Occurring During the Shift.....	35
15.0	CONTROL OF INTERRELATED PROCESSES.....	36
16.0	REQUIRED READING.....	37
17.0	TIMELY INSTRUCTIONS/ORDERS.....	38
17.1	Purpose of Timely Instructions/Orders.....	38
17.2	Writing Standing Orders.....	38
17.3	Review and Approval of Standing Orders.....	39
17.4	Controlling Standing Orders.....	39
17.5	Reviews of Standing Orders.....	40
17.6	Submittal of Standing Order to Records.....	40
18.0	TECHNICAL PROCEDURES.....	42
18.1	Procedure Development.....	42
18.2	Procedure Content.....	42
18.3	Procedure Changes and Revisions.....	42
18.4	Procedure Approval.....	42
18.5	Procedure Review.....	42
18.6	Procedure Availability.....	42
18.7	Use of Procedures.....	42
18.8	Fillable Forms.....	44
19.0	OPERATOR AIDS.....	45
20.0	COMPONENT LABELING.....	46
21.0	RECORDS.....	47

LIST OF ATTACHMENTS

Attachment 1 – Standing Order Index	48
Attachment 2 – Quarterly Standing Order Review	49
Attachment 3 – Operator Aid Index	50
Attachment 4 – VPM Semi-annual Operator Aid Review	51
Attachment 5 – Site-Specific Standing Order Format.....	52
Attachment 6 – Project Office Standing Order Format	53
Attachment 7 – Lessons Learned Form	54
Attachment 8 – CCP Required Reading Documentation.....	55

1.0 PURPOSE

The purpose of this document is to provide specific guidance for implementation of the Conduct of Operations into Central Characterization Program (CCP) activities. This document allows the user to reference implementing documents and procedures applicable to the CCP.

1.1 Scope

The scope of this document is to assemble the good operating practices by which personnel in CCP organizations, including subcontractors, are expected to perform. The practices in this document supplement other instructions provided in CCP documents.

2.0 REQUIREMENTS

2.1 References

Referenced Documents

- U.S. Department of Energy (DOE) Order 422.1, *Conduct of Operations*
- CCP-PO-002, *CCP Transuranic Waste Certification Plan*
- CCP-QP-008, *CCP Records Management*
- CCP-QP-010, *CCP Document Preparation, Approval, and Control*
- CCP-QP-022, *CCP Software Quality Assurance Plan*
- CCP-TP-140, *CCP Equipment Maintenance*

3.0 RESPONSIBILITIES

Overall responsibilities and organizational interfaces are described in CCP-PO-002, *CCP Transuranic Waste Certification Plan*.

Memorandum of Understanding (MOU)/Agreement, Statements of Work (SOW), and/or Site Interface Documents specify Host site responsibilities, plans, and procedures.

The SOW outlines Host site's responsibilities as they apply to the CCP activities conducted at the Host site.

4.0 SHIFT ROUTINES AND OPERATING PRACTICES

4.1 Status Practices

CCP operations will be in accordance with approved procedures and will be performed by qualified personnel. The Vendor Project Manager (VPM) will verify daily that personnel are qualified to perform their assigned duties by reviewing the current List of Qualified Individuals (LOQI). Whenever visual examination (VE) is to be performed, the VPM verification will include a check that a trained Visual Examination Expert (VEE) is listed on the LOQI to support the work and that the VEE has been appointed to the facility where the VE is to be performed. The Transportation Certification Official (TCO) will verify that mobile loading unit personnel are trained and qualified to perform transuranic (TRU) waste packaging and loading operations, by checking the current LOQI prior to commencement of work activities. The TCO will also verify that Host site personnel are trained and qualified for transportation-related activities by checking the current LOQI. When the TCO is not available, the LOQI will be checked by the VPM or a designated individual assigned by the operations manager.

The VPM shall conduct a pre-shift meeting, as required in the Site Interface Documents, if the generator site is not working multiple shifts. (Section 14.5 of this document shall be followed if working multiple shifts). This meeting may be held separately or in conjunction with Host site pre-shift meetings. Pre-shift meetings may be tailored to fit the operation, as required by the VPM, but should address the following as a minimum:

- Adherence to established safety requirements
- Plans and priorities for the shift
- Changes in facility conditions or site access requirements
- Status of equipment
- Maintenance activities and special evolutions
- Visitors (i.e., anyone requiring an escort) expected during the shift
- Waste stream(s) expected to be introduced for characterization
- New or revised procedures approved since the last day of operations

- New or revised Acceptable Knowledge (AK) Summary Reports approved since the last day of operations

The term Lead Operator (LO) is used to identify the person responsible to assist the VPM in completion of his duties associated with a specific piece or set of equipment. This individual will possess technical expertise for the specific equipment involved and will assist the VPM with duties such as ensuring assigned personnel are fit for duty, maintenance and review of equipment logbooks, preparation and review of standing orders, and preparation of operator aids. This position is assigned at the discretion of the VPM. The VPM shall notify affected personnel of any such assignments. This notification may be provided verbally during the daily Plan-of-the-Day (POD) meeting.

The VPM will be notified promptly of all changes in facility status, abnormalities, and difficulties or unexpected situations encountered when performing assigned tasks. The VPM shall promptly notify the CCP Project Manager of events impacting waste characterization activities.

When an unexpected event or series of events occurs or when the cause and consequences cannot be readily determined, the situation will be investigated and appropriate action taken before resuming operation.

An initial entry will be made in applicable logs stating the initiating event. Log entries will be clear, complete, and concise.

An on-shift assessment meeting will be held as soon as possible after an event to determine pertinent information relating to the event. If necessary, the shift will be held over to obtain this information.

Evidence regarding the cause of a problem will be safeguarded as sensitive information.

The LO and operators are responsible and accountable for the operations conducted during their shift. They will be cognizant of the status of all equipment and records of respective work areas.

All CCP personnel have the right and responsibility to STOP WORK. STOP WORK may be invoked any time anyone feels the safety, quality, or compliance of any CCP operation or maintenance activity has been or might be compromised. This is an individual right and responsibility and does not require the approval of supervision to invoke. STOP WORK is invoked without fear of reprisal in any form in the CCP program. The VPM will be immediately notified when STOP WORK authority has been invoked. The VPM will obtain the help of any resources necessary to respond to and correct the condition requiring the implementation of a STOP WORK order. Work may resume when the issue is resolved, the

worker invoking STOP WORK is notified of the resolution, and authorization is given by the VPM to lift the STOP WORK.

STOP WORK shall **NOT** be ignored when invoked.

4.2 Safety Practices

Personnel assigned to CCP operations shall present and maintain themselves in a condition fit for duty.

The VPM or LO shall ensure that no employee is permitted to assume their duties and responsibilities, in support of CCP operations, if it is obvious that the person is not alert, coherent, or capable of performing the requirements of the position.

Pre-job briefings will be conducted by the VPM or Designee before evolutions that are new or complex in nature, or where proficiency at the task is questioned. This will ensure the evolutions will be conducted properly and safely.

In all situations, employees will place personnel safety, facility safety, and environmental safety above CCP production. Work that violates prescribed safe work practices must be stopped and the situation immediately reported to the Host site manager and the VPM.

Planning for safety is the responsibility of all employees. Strict compliance with applicable safety standards and/or precautions will be maintained at all times. Safety precautions may be posted or be described, or referenced in job-specific procedures or work instructions.

Personnel will not climb or walk on components because this could result in personnel injury or damage to equipment. Applicable site procedures shall discuss the proper use of man-lifts, temporary scaffolding, and ladders.

Personnel will exercise appropriate precautions when entering or working in or around energized panels or equipment. Applicable site procedures shall discuss specific requirements for working around energized equipment.

Doors that serve as fire protection, security, and ventilation barriers will not be propped open for the passage of energized electrical leads or pressurized hoses, or for any other reason without the Host site manager's approval.

4.3 Inspection Tours

Operators will conduct a thorough tour of all areas within their responsibility at least once per shift or more often if directed by CCP management. The initial tour will normally be made early in the shift before the operator attends to other duties. Equipment will be inspected during area tours to ensure that the equipment is operating properly and, for standby equipment, to verify that it is fully operable (i.e., able to perform its intended function). Operators will operate the facility in a safe and deliberate manner, to ensure the following items have been evaluated during their tours:

Housekeeping

Areas around the equipment, At-the-Controls, and egress routes are clear/free of:

- Slip, trip, fall hazards (i.e., electrical cords, ice, or water).
- Combustible materials or trash.
- Tools or materials lying adrift.
- Excessive dirt, dust, or debris.

General Safety

- Communication equipment is operational.
- Equipment guards, bumpers, external optical/limit switches, and signs are in place and not degraded/damaged.
- Operator Personal Protective Equipment (PPE) is available, worn, or in use (i.e., safety vests, safety shoes, leather gloves).
- Barriers are intact, in place, with applicable postings (i.e., at-the-controls).
- Dosimetry and security badges are properly worn and clearly visible.
- Operators have signed the current Radiological Work Permit (RWP) or work document and understand the applicable radiological postings in the area.
- Emergency equipment in the area is accessible and not damaged (i.e., eye wash stations, spill kits, portable extinguishers).

- Chemicals and lubricants not in use are stored in the local chemical/flammable storage locker(s).
- Equipment safety interlocks are checked and documented appropriately.

CCP management will designate specific areas to be inspected more frequently due to such considerations as areas of high personnel activity, or where known problems exist (e.g., adverse weather conditions). They may also designate areas to be inspected less frequently due to existing personnel safety concerns. The CCP VPM will conduct a thorough tour of all areas within their responsibility to evaluate the attributes of the Operator's Inspection Tours and the following:

General Safety

- Status board(s) are current/up-to-date.
- Standing orders/operator aids are properly posted and clearly visible to the operator.
- Operators are alert and attentive at the equipment.
- Waste Handling Equipment/waste containers do not block or restrict egress routes.
- Radiological Warning Devices are operating.

Procedural Compliance

- Operating procedures are at the equipment, current, in good repair, and open to the step(s) being performed.
- Equipment logbooks are in use, entries are legible and adequate.
- Steps performed from the procedure were observed to have been performed in sequence, verbatim, and were documented appropriately, if required.

4.4 Personnel Protection

CCP personnel shall adhere to the requirements of the Host site Industrial Safety Program. Proper hearing, vision, head, foot, and respiratory protection shall be worn in designated areas to reduce the potential for injury. Clothing will not be so tight as to restrict movement or so loose as to get caught in moving machinery. This information is specified within CCP operations procedures and posted appropriately throughout the area(s) where CCP activities will occur.

Emphasis will be placed on determining the adverse factors that contribute to personnel exposures and minimizing those factors to keep exposures within as low as reasonably achievable (ALARA) specifications.

4.5 Response to Indications

A fundamental principle of safe facility operation is to believe your indications. CCP personnel will:

- Assume that the alarm condition, gauge reading, meter reading, analytical result, etc., is accurate, unless proven otherwise.
- Take appropriate response action.

The results of the action will be reported to the appropriate facility personnel.

4.6 Resetting Protective Devices

The VPM is the only person who can authorize resetting tripped devices associated with the CCP-provided equipment downstream of the Host site utility interfaces.

The Host site manager is the only person who can authorize resetting tripped devices supporting CCP upstream of the Host site utility interfaces.

When a protective device trips, a visual inspection of the device and associated equipment will be performed prior to resetting the device.

4.7 Authority to Operate Equipment

4.7.1 The following requirements apply to the Host site, its equipment, and the interface with CCP characterization activities:

- The Host site manager is in charge of plant operations 24-hours-a-day. This judgment may be overruled only by the Host site manager's chain-of-command.

- The Host site manager's operational judgment will be considered definitive. This judgment may be overruled only by the Host site manager's chain-of-command.
- The Host site manager is responsible for maintaining the plant in a safe configuration during normal and abnormal situations.
- The Host site manager approves of operations and/or maintenance of plant equipment and systems.

4.7.2 The following requirements apply to the operation of CCP characterization activities:

The VPM will obtain approval from the Host site manager before performance of operations and maintenance of CCP equipment and systems.

The VPM's operational judgment will be considered definitive for the safe operation of CCP characterization activities. This judgment can only be overruled by the following:

- The Host site manager in matters of overall safe operation of the Host site.
- The CCP Manager responsible for Operations.
- The CCP Manager.
- Nuclear Waste Partnership (NWP) Senior Management, or designees, directly responsible for CCP operations.

CCP operations will be performed only by properly trained and qualified personnel as verified from the LOQI by the VPM.

Upon discovery of an emergency or non-routine event, CCP personnel shall:

- Take immediate actions to ensure their own safety.
- If appropriate, warn other employees who may be affected.
- Report the event to the VPM and the Host site manager as soon as possible.

Operators will establish plant safety conditions over facility production conditions for all off-normal and emergency facility situations.

4.8 Shift Operating Bases

Each operating base will be equipped with appropriate office equipment for the operator to maintain necessary procedures and references to conduct administrative duties.

Necessary communication equipment will be available at each operating base.

4.9 Potentially Distractive Written Material and Devices

Some devices, such as radios, are allowed in administrative work areas. Non-job-related written materials may be present in the administrative work areas, but personnel are not allowed to read these during work hours.

Written material that does not relate to operations and entertainment devices (e.g., radios, televisions, tape players, and computer games) are prohibited for use by on-duty operating personnel.

Non-work-related written materials and entertainment devices will not be brought to operator workstations.

Cell phones may be used by on-duty operating personnel to supplement other means of two-way communications as long as no Host site cell phone restrictions exist and no additional hazards are introduced by cell phone usage. On-duty operators shall not use text messaging for personal business or play games on cell phones. The VPM may authorize the use of text messaging as a means of communicating business related information within a project. Personal phone calls shall be minimized by on-duty operators.

5.0 CONTROL AREA ACTIVITIES

5.1 Control Area Access

Control Areas, when required, shall be established by the VPM.

Access to Control Areas will be limited to persons who need to be in Control Areas on official business.

The Control Area Operator will grant access to Control Areas. The one exception to this requirement is the on-duty VPM. The on-duty VPM may enter a Control Area without permission. The VPM will clearly announce when entering and when leaving the Control Area.

The "at-the-controls" area of Control Areas will be clearly identified with a boundary understood by all persons who are granted access to the area.

Only those activities essential to supporting operations and activities authorized by management will be conducted in Control Areas.

5.2 Monitoring the Main Control Panels

The Control Area Operators will be alert and attentive to control panel indications and alarms.

The Control Area Operators will frequently and closely monitor control panel indications to detect problem situations early.

The Control Area Operators will take prompt action to determine the cause and to correct abnormalities.

5.3 Control Operator Ancillary Duties

Duties assigned to operators should not interfere with their ability to monitor parameters.

If an operator is involved in administrative tasks, other qualified operators will assume responsibility to monitor the process.

The administrative work load of operators responsible for monitoring and operating Control Areas will be minimized.

5.4 Operation of Control Area Equipment

Only persons specifically authorized by CCP qualification programs will operate Control Area equipment.

Trainees, when allowed to operate Control Area equipment, will be supervised and controlled properly by the operator who would normally perform the evolutions.

6.0 COMMUNICATIONS

6.1 Emergency Communications Systems

When personnel are working in areas where emergency notifications cannot be heard, alternate methods for alerting these persons will be used:

- The Host site manager and the VPM will provide the appropriate notification methods for their responsible areas.
- Operators will ask for clarification of any communication that is not understood. Repeat-backs are to be used when determined to be necessary by supervision.

6.2 Lessons Learned

Lessons Learned are developed based on CCP's operating experience, or operating experience information provided by the DOE or other external sources, to ensure ongoing improvement of safety and reliability. Cognizant CCP managers will review Lessons Learned materials or events and determine the necessity to issue a lessons learned. The cognizant manager or designee will develop CCP Lessons Learned.

Lessons Learned will be developed using Attachment 7, Lesson Learned Form. The number for the Lessons Learned will be obtained from the Lesson Learned Log maintained by CCP Training. Once Attachment 7 is complete, the preparer will sign and forward Attachment 7 to the cognizant manager for review and approval. The approved Attachment 7 may be routed to the target audience as supplemental required reading or be provided as a briefing to the target audience. The electronic read-and-sign process administered by CCP Training is the preferred method for distributing Lessons Learned as supplemental required reading.

The approved Attachment 7 will be posted to the Lessons Learned folder on the CCP file transfer protocol (sftp) site. The record copy will be submitted to the CCP Records program for retention. Lessons Learned obtained from other DOE facilities or the DOE National Lessons Learned Database may be issued by obtaining a Lessons Learned number from CCP Training and determining a target audience. A copy of all CCP Lessons Learned will be provided by the cognizant manager to the NWP Lessons Learned Coordinator.

The NWP Lessons Learned Coordinator will ensure that NWP Lessons Learned are posted on the WIPP Lessons Learned Alerts Database on the

WIPPNet, making them available for review by CCP personnel as applicable.

6.3 Communication of Employee Concerns

6.3.1 When personnel wish to report an employee concern, they should follow existing processes (i.e., Open Door Policy, discussion with management). Documented employee concerns will be tracked in accordance with existing processes.

NOTE

This process **DOES NOT** take the place of STOP WORK for immediate safety issues. This process **DOES NOT** replace any other employee concern process.

6.3.2 When personnel identify an abnormal condition at CCP Host sites, formal notification should be made to the VPM:

- Notification can be made via telephone but will be followed with formal notification.
- Formal notification can be an e-mail, fax, or memorandum.
- Notification is to include the name of the person identifying the concern or abnormal condition and whether the issue is safety related.
- A copy of the notification shall be sent to the secretary for the CCP Project Manager by the VPM to allow tracking of issues in the NWP Commitment Tracking System (CTS).

7.0 ON-SHIFT TRAINING

7.1 Adherence to Training Programs

Qualification training is based on training identified in CCP-QP-002, *CCP Training and Qualification Plan*, or CCP-QP-040, *Support Training*, depending on the position requiring qualification training.

7.2 Supervision and Control of Trainees

CCP personnel will receive indoctrination, training, and qualification necessary to achieve initial proficiency; maintain proficiency; and adapt to changes in technology, methods, job responsibilities, and quality implementing procedures, prior to performing operations.

CCP On-the-Job-Training (OJT) Instructors will be specifically designated in writing. Selection of OJT Instructors will take into account communication skills, technical knowledge, and ability to instruct trainees properly using hands-on experience.

Trainees will not be allowed to perform any tasks within their qualification areas unsupervised. The maximum number of trainees allowed during operations and the maximum number of trainees per Subject Matter Expert (SME)/qualified operator will be established by the VPM. The following requirements shall be met prior to allowing a trainee into the characterization activity to begin qualification:

- The LO shall provide the VPM with at least one week of advance notice prior to a trainee arriving at a Host site.
- The VPM shall verify that the trainee has the PPE required by the Health and Safety Plan, Automated Hazards Analysis (AHA), Job Hazard Analysis (JHA), or other requirements document prior to allowing the trainee to proceed to the characterization activity to begin qualifications. As a minimum, this will include steel-toed or composite-toed safety shoes/boots.

The trainee has the following responsibilities during the time it takes to complete the qualification program and is accountable for these responsibilities:

- The trainee shall ensure that the PPE required to work in and transit to/from the characterization activity is available and worn at all times when under instruction.

- The trainee shall not leave the immediate supervised area of the OJT Instructor or other qualified operator while working on qualifications.
- The trainee shall not perform any task in the work area without the direct supervision of the OJT Instructor or a qualified operator until qualifications are complete and the trainee is listed on the LOQI.

The OJT Instructor or qualified operator has the following responsibilities any time a trainee is assigned to complete a qualification program and is accountable for these responsibilities.

- The OJT Instructor or qualified operator shall verify that the trainee has the required PPE to work in or around the characterization activity prior to transiting to the characterization activity.
- The OJT Instructor or qualified operator shall ensure that the trainee is supervised at all times. The OJT Instructor or qualified operator must be able to stop the trainee from performing tasks incorrectly or unsafely at all times.
- The qualified supervising person will countersign any characterization results that were prepared by a trainee as part of the trainee's qualification for the position, along with an explanation for the two signatures.

Any ongoing training activities involving trainees will be suspended during unanticipated or abnormal events.

The LO and the VPM will monitor the trainee qualification to ensure that the above requirements are met.

7.3 Operator Qualification Program Approval

The CCP Cognizant Manager (CM) will ensure that the requirements of the training program are implemented in accordance with CCP-QP-002 and CCP-QP-040.

7.4 Training Documentation

CCP-QP-002 provides documentation guidance for qualification programs.

8.0 INVESTIGATION OF ABNORMAL EVENTS, CONDITIONS, AND TRENDS

All requirements of this section are covered by applicable Host site procedures.

9.0 NOTIFICATIONS

CCP personnel shall immediately notify CCP Management (PM/VPM for field operations) of any abnormal event (e.g., emergency event, injury/illness, damage to equipment).

All Host site notification requirements are covered by applicable Host site procedures.

10.0 CONTROL OF EQUIPMENT AND SYSTEM STATUS

The Host site manager is tasked with maintaining a broad overview of operations.

10.1 Status Change Authorization and Reporting

Responsibility for maintaining proper configuration and authorizing changes of Host site equipment and systems rests with the Host site manager.

Responsibility for maintaining proper configuration, and authorizing changes of CCP equipment, rests with the VPM, as modified by specific site interface documents.

All maintenance activities conducted on CCP equipment shall be authorized under the Host site work control program. The VPM shall be aware of and approve any maintenance activities conducted by Host site maintenance personnel on CCP equipment. The VPM shall evaluate the impacts of maintenance conducted by Host site maintenance personnel and provide a briefing to affected CCP personnel prior to the start of the maintenance activity.

A specific pre-job briefing shall be conducted by the VPM for any maintenance on CCP equipment conducted by CCP personnel or technical representatives from CCP subcontractors. The Host site prescribed pre-job briefing format will be followed where it is required by the work control system. In any case, the briefing shall include technical, radiological safety, and industrial safety aspects of the work and address the following as a minimum:

- The scope of the approved work document.
- The hazards identified in the approved work document, AHA, JHA, and RWP (or equivalent documentation).
- The actions taken to mitigate the hazards.
- The control of subcontractor technical personnel and limitations on their performance of work within the approved scope.
- Responsibilities of support personnel (i.e., Industrial Safety Engineer, Radiological Controls Technician, etc).
- Response to alarm or unexpected conditions.

All CCP and support personnel involved in the maintenance activity, including vendor technical representatives, shall attend the pre-job briefing. The briefing, including a list of all personnel attending the briefing, shall be documented in the applicable Operational Logbook (OLB).

CCP personnel will monitor the equipment and systems of their assigned area frequently, especially after starting components, to assure proper operation.

When changing the operational status of equipment/systems and anticipated results are not received, the operator will:

- STOP WORK and inform the LO and the VPM.
- Take necessary action to restore the equipment/system to a proper operating status or place it in a safe operating condition.
- Place the equipment or system in a safe condition and obtain direction from the LO and the VPM before proceeding if an unexpected result occurs while performing an operating procedure.

10.2 Equipment Locking and Tagging

All requirements of this section are covered by applicable Host site procedures.

10.3 Operational Limits Compliance

Operational limits will be addressed in CCP Technical Procedures, as required.

10.4 Equipment Deficiency Identification and Documentation

All requirements of this section are covered by applicable Host site procedures.

10.5 Equipment Post-Maintenance Testing and Return to Service

Requirements of this section are addressed in CCP-TP-140, *CCP Equipment Maintenance*, where implemented, or are covered by applicable Host site procedures.

11.0 LOCKOUT AND TAGOUTS

All requirements of this section are covered by applicable Host site procedures.

12.0 INDEPENDENT VERIFICATION

All requirements of this section are covered by applicable Host site procedures.

13.0 LOG KEEPING

OLBs shall be used at each CCP operation which operates complex equipment with nuclear material (e.g., Nondestructive Assay [NDA], Nondestructive Examination [NDE], Gas Generation Testing [GGT]). The OLB provides an accurate narrative log of the history and status of the facility operation. Log keeping will not take precedence over the safe operation of the facility. Completed OLBs will be managed in accordance with CCP-QP-008, *CCP Records Management*.

13.1 Logbook

The logbook shall be a hard bound book. The OLB is considered a Quality Assurance (QA) record. Control numbers are issued by the CCP Records Center. For record purposes, an OLB shall only be in service for one calendar year or until the logbook is full (if filled within calendar year timeframe). The primary users of the OLB will be the equipment operators. A new logbook shall be issued to characterization activities on the first working day following the first of January each year or the first working day after notified the current OLB is full. The full logbook or logbook from the previous year shall be closed out and turned in to the CCP Facility Records Custodian.

When not in use, the OLB shall be stored in a locked fire-rated cabinet.

13.2 Logbook Entries

Information will be recorded in a timely fashion to prevent incomplete or inaccurate entries. The first page shall identify the logbook as an OLB, control number, calendar year, description of the facility/equipment, including location (e.g., Idaho National Laboratory [INL], Savannah River Site [SRS]), and the printed name and initials of the personnel who will be making entries. Each page shall be dated (a new page for each date) and each entry shall include the person's initials and time of day.

Daily entries will be made in a manner that can be easily read and understood and contain as much significant information as possible to make event and history reconstruction possible. Log entries will be made in indelible, reproducible ink (black recommended). At the end of each calendar day, a single diagonal line will be drawn through the remaining blank lines on the page in use and the initials and date entered by the diagonal line to indicate no further entries for that day. At the end of the calendar year, a single diagonal line shall be drawn through the first blank page after the last page of OLB entries. No further entries this year, initial, and date shall be entered by the diagonal line.

Minimum daily entries, when equipment is operational, shall include the following:

- Safety walk-down of facility
- Facility mode conditions (e.g., operational or shutdown), if applicable
- Safety or security issues, if any
- Verification that operating procedures are current
- Verification that software in use is approved and current
- Entries required by CCP technical procedures

Other daily entries could include information such as:

- Equipment startup and shut down times
- Equipment deficiencies
- Lockout/tagout information
- Visitors
- Production throughput
- Performed maintenance activities
- Reference to the approved procedure describing the work, including control number and revision
- When multiple procedures are associated with the work (e.g., documenting calibration data), a statement of the objectives and a description of the work to be performed may be added.

13.3 Logbook Corrections

NOTE

OLBs shall **NOT** be corrected with correction fluid or correction tape.

Corrections to logbook entries will be made by placing a single line through the incorrect entry without obliterating the prior entry and writing the correct entry in a nearby available space. Corrections will be initialed and dated.

13.4 Late Entries

Entries made in a logbook out of chronological sequence are designated as late entries. Late entries are made in the logbook by documenting the time the late entry is made, entering (late entry), documenting the time the entry should have been made, documenting the entry, and initialing the entry.

IF the day the entry should have been made has been closed out,
THEN document the time and the date the entry should have been made.

13.5 Logbook Reviews

The VPM will review, sign, and date the logbook each operational week at a minimum. The reviews validate the entries are accurate and adequate.

The Transportation Certification Official (TCO) will review, sign, and date the Mobile Loading Operational logbook each operational week at a minimum. Should the TCO not be available to review the Mobile Loading Operational Logbook, the VPM may perform and document the review.

For Small Quantity Sites, logbooks will be reviewed by the VPM or a person designated by the manager for operations within one week of the completion of the process or activity for which the logbook was used.

13.6 Annual Reconciliation of Operational Logbooks

CCP Records

13.6.1 At the end of each calendar year, reconcile assigned OLB numbers with the OLBs submitted to CCP Records, as follows:

- [A] Verify that an OLB has been submitted for each OLB number assigned during the previous year.
- [B] Resolve any discrepancies with the responsible VPM.

Following receipt of all required OLBs and resolution of discrepancies, file an Operational Logbook Annual Reconciliation Report documenting the reconciliation effort and listing the OLBs that were verified.

14.0 TURNOVER AND ASSUMPTION OF RESPONSIBILITIES

NOTE

This section is not applicable to CCP operations working only a normal day shift schedule. Turnover checklists will not be utilized unless the CCP operations extend to multiple shifts. Turnover checklists are otherwise not applicable to CCP personnel.

14.1 Turnover Checklists

Supervisory positions routinely conducting shift turnovers will use a turnover checklist for the process. These checklists will provide vital information about the site operational status. The managerial checklists will also require documenting the review of the equipment logbook.

Equipment logbooks, or other formal documentation, will be used to provide on-coming operators with an understanding of the operating status of their equipment.

A review of logbooks will be performed by on-coming shift personnel. Initials by watch station personnel after review of logbooks will signify review completion.

14.2 Document Review

On-coming personnel and CCP management will review documents specified on their turnover checklists before assuming responsibility for their shift position.

This document review will be as intensive as necessary for the on-coming personnel to understand important history, present status of the facility, and planned events.

Logbook entries for the previous 24-hour period, or since the relieving operator's last shift, will be reviewed.

Logbooks will be reviewed so that personnel and their management are familiar with all active entries, which emphasize changes that have occurred since the last shift.

14.3 Control Panel Walkdown

On-coming managers will walkdown main equipment areas during, or shortly after, shift turnover.

Control Area on-coming and off-going personnel will walkdown their main control panel(s) together.

14.4 Discussion and Exchange of Responsibility

The off-going manager or operator will explain all items noted on the turnover checklist at a time when facility conditions are stable.

When facility conditions are changing or unusually complicated conditions exist, watch relief will not occur until directed by the VPM.

Turnover communications will include the on-coming operator or management asking any pertinent questions.

Each unusual reading, significant log entry, or out-of-specification reading will be discussed, and reasons for any questionable entries resolved, before watch relief.

After reviewing the logs, the on-coming and off-going watch station personnel will discuss the current watch station status, using the turnover checklist (as applicable), noting the following (as appropriate):

- Work order/maintenance work in progress
- Work order/maintenance retest in progress or waiting retest
- Reason for equipment being out-of-commission
- Abnormal equipment conditions, system lineups, or alarm status
- Evolutions and tests in progress
- Potential problem areas.

On-coming operator or manager assumption of responsibility will be concluded with an entry into a logbook or operating log, as appropriate for the shift position.

14.5 Shift Crew Briefing

A crew briefing will be conducted by the VPM.

The crew shift briefing will include a review of facility and equipment status, problems with equipment, and evolutions in progress or planned during the shift.

Shift operators and personnel from support groups will attend shift briefings when their activities can directly affect facility operations.

Shift briefings will result in operating and support personnel understanding shift priorities and objectives.

14.6 Relief Occurring During the Shift

Shift relief occurring during the shift will result in a turnover that ensures that the on-coming person is at least as knowledgeable of the conditions as would have occurred had a complete shift turnover process been conducted.

Shift positions will not leave their assigned work areas without a formal relief by another qualified person if equipment is in operation.

The LO in charge may secure shift positions manned on a part-time basis.

15.0 CONTROL OF INTERRELATED PROCESSES

All requirements of this section are covered by applicable Host site procedures.

16.0 REQUIRED READING

The Host site prescribed Conduct Operations required reading program will be followed where it is part of their Safety Basis (SB) or Safety Management Program (SMP), or when otherwise required by a work control system. Required reading includes need-to-know corporate information, safety bulletins, lessons learned, or information that will add value to the operations but are not a prerequisite for indoctrination or performing work.

Required reading for personnel will be assigned by the cognizant manager. The cognizant manager will provide the reading material to assigned personnel. The cognizant manager will issue Attachment 8, CCP Required Reading Documentation with the required reading.

The completed Attachment 8 will be returned to the cognizant manager. Once the cognizant manager verifies and validates completion of Attachment 8, it will be forwarded to CCP Training in accordance with CCP-QP-008.

As an alternative to the use of Attachment 8, the electronic read-and-sign process administered by CCP Training may be used to distribute and document required reading. Although either the Attachment 8 or the electronic process may be used, the electronic process is preferred.

17.0 TIMELY INSTRUCTIONS/ORDERS

17.1 Purpose of Timely Instructions/Orders

Timely orders (normally technical or general information or direction), hereafter called standing orders, when used, provide a means to communicate direction to operators. This direction may be short-term or long-term depending on the situation as evaluated by the cognizant VPM or CCP Managers in Carlsbad. Information, such as special operations, data collection, plotting process parameters, special reviews, or other similar matters, may be included in standing orders. Standing orders shall not be used to deviate from approved procedures. However, standing orders may supplement approved procedures with new or additional requirements.

Standing orders may be technical or non-technical. Technical standing orders pertain to direction or clarification given to the physical operation of a characterization unit or activity. Non-technical standing orders pertain to direction or clarification given to data review, certification activities, or other non-operational reasons.

17.2 Writing Standing Orders

Standing orders will be written and issued at the appropriate level in the CCP Organization. Standing orders specific to field activity direction at a site or amplification of technical procedures at a specific site (i.e., amplification or change to a Host site technical safety requirement) shall be known as site-specific standing orders. Standing orders affecting Project Office documents or activities, QA documents, or CCP-wide review of characterization data at the data generation level, or waste certification shall be known as Project Office standing orders. The Project Office may request or direct that a site-specific standing order be written. Any VPM may request that a Project Office standing order be written.

Standing orders shall be written by the person having final approval authority or by a person designated by that authority. Site-specific standing orders shall be written using Attachment 5, Site-Specific Standing Order Format. Project Office standing orders shall be written using Attachment 6, Project Office Standing Order Format. Standing orders that when printed are more than one page will contain page X of XY at the bottom of each page and capture the standing order number and revision number at the top of each page.

17.3 Review and Approval of Standing Orders

Site-specific standing orders will be approved by the lead VPM. Site-specific standing orders that provide additional technical requirements to a characterization activity or technical procedure or clarify the implementation of existing requirements will be reviewed by the affected LO(s). Site-specific standing orders that are written for the implementation of new technical safety requirements or industrial safety requirements, or change the implementation of existing requirements, will be reviewed by the Host site technical representative (STR) and Facility Safety Representative (FSR) as required in the site-specific Interface Document. Site-specific standing orders that provide direction or additional guidance concerning implementation of compliance requirements will be reviewed by a currently qualified SPM. The signature blocks on Attachment 5 may be modified as necessary to document appropriate reviewers. When the point of contact information is no longer current for a site specific standing order, the point of contact will be the site VPM, or CCP Operations Manager.

Project Office standing orders will be approved by the cognizant Project Office manager in Carlsbad. In specific cases, Project Office standing orders may be approved by a Field Project Manager if assigned the responsibility for a Project Office document. Project Office standing orders that augment or clarify existing procedures concerning the implementation of compliance requirements will be reviewed by a currently qualified SPM. The signature blocks on Attachment 6 may be modified as necessary to document appropriate reviewers. When the point of contact information is no longer current for a project office standing order, the point of contact will be the SPM, or CCP Certification Manager.

17.4 Controlling Standing Orders

Each approved standing order shall be assigned a unique number, including a designator for the issuing site (i.e., Oak Ridge National Laboratory [ORNL], SRS, Los Alamos National Laboratory [LANL], INL, etc.). Project Office standing orders will not have a site designator in the unique number. Standing orders shall have a revision number. Standing orders may be revised as conditions warrant. Standing orders shall be entered in Attachment 1, Standing Order Index, when approved. Each authority approving standing orders shall maintain a folder/binder listing all approved, superseded, or cancelled standing orders. This folder/binder shall be kept in an approved records safe when not in use. Standing orders **DO NOT** need to be revised due to a revision of CCP-PO-005, *CCP Conduct of Operations*.

Affected CCP personnel will be briefed on new or revised standing orders. This may be performed during the daily pre-operations briefing, turnover meeting, or at a briefing session for the affected operators. CCP operators will also be notified when any standing order is cancelled. All standing orders issued by CCP, site-specific or Project Office, shall be provided to CCP Training to post in the Standing Orders Folder on the CCP sftp site.

Site-specific standing orders containing technical direction or clarification shall be provided to the affected characterization activity LO for posting. The LO shall have the standing order posted in close proximity to the area in which the standing order will be used and securely fastened in a manner that will not obscure instruments, indicators, or alarms. LOs may choose to post other standing orders at their discretion.

Any data collected as instructed by a standing order will be dispositioned to records in accordance with CCP-QP-008.

17.5 Reviews of Standing Orders

Standing orders shall be reviewed on a quarterly basis to verify that the standing orders remain necessary and that the technical direction (the "Order" portion) in posted standing orders is still current. Standing orders that remain current and necessary shall not be revised. Standing orders that are not current but are necessary shall be revised and reissued. Standing orders that are no longer necessary shall be cancelled and removed from the field.

Standing orders that supplement existing procedures shall remain in effect for as long as they are needed, or until the language of the standing order has been incorporated into the existing procedure. The quarterly review shall be documented by the approving authority on Attachment 2, Quarterly Standing Order Review. Documentation of this review provides evidence that the remaining standing orders are necessary and that the posted standing orders are current. The completed Attachment 2 shall be filed in the controlled standing order folder/binder.

17.6 Submittal of Standing Order to Records

All site-specific standing orders, Standing Order Index forms, and Quarterly Standing Order Review forms will be submitted to CCP Records in accordance with CCP-QP-008 at the completion of characterization activities at the site.

Project Office standing orders and Quarterly Standing Order Review forms that have been superseded or cancelled will be submitted to CCP Records in accordance with CCP-QP-008. Project Office Standing Order Index forms will be maintained by the Project Office and submitted to CCP

Records when all standing orders listed on a Standing Order Index form have been superseded or cancelled. They will be submitted in accordance with CCP-QP-008.

18.0 TECHNICAL PROCEDURES

Technical (operating) procedures are developed, reviewed, and approved to provide appropriate direction to ensure that the facility is operated safely. Approved procedures should be effectively used to support safe operation of the facility.

18.1 Procedure Development

CCP procedures are required to meet the format guidance in CCP-QP-010, *CCP Document Preparation, Approval, and Control*.

18.2 Procedure Content

The uniformity of content is controlled in accordance with CCP-QP-010.

18.3 Procedure Changes and Revisions

Procedure revisions are controlled in accordance with CCP-QP-010.

18.4 Procedure Approval

New or revised procedures are approved in accordance with CCP-QP-010.

18.5 Procedure Review

New or revised procedures are reviewed in accordance with CCP-QP-010.

18.6 Procedure Availability

Procedures are made available to operators through compliance with CCP-QP-010.

18.7 Use of Procedures

Procedures will be adhered to at all times. As the sole exception to this requirement, operators may take whatever action is necessary during emergency conditions to place the facility in a safe condition and to protect equipment, personnel, and public safety without first initiating a procedure change.

Copies of operating procedures printed from the CCP sftp site, Controlled Documents folder, may be used to conduct operations.

Procedures and fillable forms will be verified current at the beginning of each shift. Procedure revisions will be verified against the current revision of the procedure posted in the Controlled Documents folder on the CCP sftp site. When the CCP sftp site is not accessible, the document may be verified by calling CCP Document Control. An entry will be made in the logbook to document the document number, current revision, effective date, and person contacted when verifying documents with CCP Document Control. Documents verified at the beginning of the shift will be considered current through the remainder of that shift.

For continual shift work (i.e., more than one shift per day), if an evolution is stopped for more than one shift, the operator will re-verify the document is the current revision prior to restarting the evolution.

Numbered procedure steps will be performed in the order written unless specifically stated otherwise.

If, in the opinion of the operator, a procedure cannot be performed as written, the system or component will be placed in a safe condition and CCP management informed so the discrepancy can be corrected. Procedures have been prepared anticipating facility condition. In the event of a situation not covered by an approved procedure, personnel will:

- Minimize risk of personnel injury and personnel exposure to hazards.
- Minimize hazardous material release to the environment.
- Protect facility equipment.
- Protect experimental data.
- Notify the LO and the VPM.

All CCP operations will be conducted with the procedure open and followed step-by-step. The reader/performer method may be used as long as the reader has the procedure open and follows step-by-step, verifying that each action is performed as read. NO other methodology is acceptable for performing operations in CCP.

Only controlled or working (a copy of a controlled copy that has been verified correct) copies of procedures will be used by operators. This ensures that the procedures are up-to-date with all procedure change notices and revisions.

The VPM will ensure operating staff are aware of revisions to technical procedures impacting applicable CCP equipment at their sites.

The CCP Transportation Manager will ensure that transportation personnel are aware of revisions to procedures impacting the operation of transportation equipment.

18.8 Fillable Forms

Fillable forms, when used properly, are a valuable tool for improving the quality of data. Fillable forms may be produced by CCP Document Services or the end user and must meet the following requirements.

A fillable form must contain a header with the procedure number, revision number, procedure title, effective date, and page number as displayed in the parent procedure.

The attachment number and title from the parent procedure attachment shall be documented immediately following the header.

All data fields from the parent procedure attachment shall be presented on the fillable form in the same order and identically worded.

The data fields should be made to expand to ensure that the data is appropriately captured, as necessary. Data fields should only be limited on expansion to prevent having additional pages created by the expansion of one or more of the fields. The LO or SPM should be contacted for direction when data will not fit onto a one page fillable form.

Signature blocks shall be included on the fillable form when included on the parent procedure attachment.

Fillable forms may include simple calculations (addition or subtraction). However, these calculations must be checked by hand during the review of the data. No complex calculations or operations may be imbedded within a fillable form without being approved in accordance with CCP-QP-022, *CCP Software Quality Assurance Plan*.

Fields in fillable forms must be blank each time the forms are opened. No pre-filled-in data, information, or checks may be present in any data field when these forms are opened.

Fillable forms must be verified current prior to use as discussed in Section 18.7.

19.0 OPERATOR AIDS

Operator Aids, when used, provide information useful to operators in performing their duties. Operator Aids may be in many forms, such as the latest revision of pages out of procedures, handwritten notes, and information tags. Operator Aids shall be viewed as a convenience to the operator, not administrative/technical requirements and/or direction. Specifically, Operator Aids may supplement approved procedures, but shall not be used in lieu of approved procedures. Operator Aids may be proposed by any CCP personnel. The LO shall review all Operator Aids to verify they meet the criteria identified herein before they are approved by the VPM and posted. The LO will obtain concurrence for an Operator Aid that affects Host site equipment or personnel from the appropriate equipment and/or personnel manager/supervisor prior to VPM approval. The LO review, Host site concurrence, if required, and VPM approval shall be documented on the Operator Aid. The Operator Aids shall be posted in close proximity to the area in which they will be used and securely fastened in a manner that will not obscure instruments, indicators, or alarms. Operator Aids which detail characterization information shall be approved by the process Cognizant Engineer and the site SPM.

A Controlled Operator Aid folder/binder listing all currently approved, superseded, and canceled Operator Aids, including a copy of each, shall be maintained by the VPM. Each Operator Aid approved by the VPM shall be assigned a unique number and entered in Attachment 3, Operator Aid Index. The VPM shall review/verify, semi-annually, that the Operator Aids in use remain necessary and the posted Operator Aids are current. Operator Aids that are no longer applicable or outdated shall be promptly removed and canceled by the VPM. Those that are not current, but are still needed, will be revised and reissued. This review shall also be documented by the VPM on Attachment 4, VPM Semi-annual Operator Aid Review, and filed in the Controlled Operator Aid folder/binder. Operator Aids do not need to be revised due to a revision of CCP-PO-005.

All Operator Aids, Operator Aid Index forms, and VPM Semi-annual Operator Aid Review forms will be submitted to CCP Records, in accordance with CCP-QP-008, at the completion of characterization activities at the site.

20.0 COMPONENT LABELING

Components are labeled per equipment vendor specification.

21.0 RECORDS

Records generated during the performance of this document are maintained as QA records in accordance with CCP-QP-008. The records are the following:

21.1 QA/Nonpermanent

- Attachment 1, Standing Order Index
- Controlled standing orders
 - Site-specific
 - Project Office
- Attachment 2, Quarterly Standing Order Review
- Attachment 3, Operator Aid Index
- Controlled Operator Aids
- Attachment 4, VPM Semi-annual Operator Aid Review
- Formal Notification of Communication of Employee Reports of Abnormal Field Conditions (e-mail, fax, or memorandum)
- Turnover Checklists (when applicable)
- Attachment 5, Site-Specific Standing Order Format
- Attachment 6, Project Office Standing Order Format
- Briefing sheets (flows into CCP-QP-002)
- Attachment 7, Lessons Learned Form
- Lessons Learned Log
- Attachment 8, CCP Required Reading Documentation
- Training Module – Required Reading
- Operational Log Books
- Operational Logbook Annual Reconciliation Report

Attachment 2 – Quarterly Standing Order Review

1. Site: _____ 2. Date: _____

3. Standing orders in effect:

4. Standing orders cancelled as a result of this review:

5. Standing orders revised as a result of this review:

6. Comments:

Printed Name

Signature

Date

Attachment 4 – VPM Semi-annual Operator Aid Review

1. Site: _____ 2. Date: _____

3. Operator Aids in effect:

4. Operator Aids cancelled as a result of this review:

5. Operator Aids revised as a result of this review:

Comments:

VPM Printed Name

Signature

Date

Attachment 5 – Site-Specific Standing Order Format

CCP Standing Order CCP-SO-____-____ Rev. _____

Title:

Applicability

Order

This order will remain in effect until:

Background

Lead Operator Printed Name/Signature/Date

SPM (if applicable) Printed Name/Signature/Date

STR (if applicable) Printed Name/Signature/Date

FSR (if applicable) Printed Name/Signature/Date

VPM Printed Name/Signature/Date

Attachment 6 – Project Office Standing Order Format

CCP Standing Order CCP-SO-__ Rev. ____

Title:

Applicability

Order

This order will remain in effect until:

Background

VPM (if applicable) Printed Name/Signature/Date

Safety (if applicable) Printed Name/Signature/Date

SPM (if applicable) Printed Name/Signature/Date

CCP Manager Printed Name/Signature/Date

Attachment 7 – Lessons Learned Form

CCP Lessons Learned	
Number:	Date:
Title:	Target Audience:
Lessons Learned Statement:	
Background:	
Lessons Learned Discussion:	
Recommended follow-up actions:	
Prepared by:	Management Approval:

CCP-TP-113

Revision 18

CCP

Standard Contact-Handled Waste Visual Examination

EFFECTIVE DATE: 09/25/2013

Mike Ramirez

PRINTED NAME

APPROVED FOR USE

RECORD OF REVISION

Revision Number	Date Approved	Description of Revision
0	03/26/2004	Initial Issue.
1	04/02/2004	Incorporated Facility Oversight Review Committee Comment resolutions, from Los Alamos National Laboratory, into Sections 1.0, 2.0 and 4.0.
2	07/15/2004	Revised in response to CBFO CAR #04-026. The change in this document involved addition of a note for clarification and implementation on percent fill of a drum. As such, this change is data quality affecting.
3	01/25/2005	Made corrections to procedure per LANL, to comply with the MSA review.
4	12/22/2005	Revised Table 4 to add the weight of an 85- and 110-Gallon Drum as well as a 55-Gallon 12-mil. Plastic Bag. Revised responsibility for pagination of the BDR.
5	08/28/2006	Revised to address CAR LANL-0006-06.
6	11/16/2006	Revised to implement changes to the Waste Isolation Pilot Plant Hazardous Waste Facility Permit requirements resulting from the Section 311/RH PMR.
7	03/19/2007	Revised to clarify notes and procedural steps. Revised to record Output Drum information in Section 4 of Attachment 1. Revised to record Waste Container ID on each page of Attachment 1.
8	09/04/2007	Revised to separate and clarify each Visual Examination (VE) process. Revised Attachment 1, CCP Waste Visual Examination Data Form and Attachment 2, CCP Waste VE Independent Technical Reviewer Checklist, to support the changes. Added new Section 4.11, Newly Generated Waste Container Data Submission, and Attachment 5, CCP Newly Generated Waste Container Data, to assist in container tracking. Incorporated additional editorial changes.
9	03/05/2008	Revised to add a step to Section 2.4 for use of Host site procedures for anomalous conditions. Attachment 1, Section 5, Prohibited Items revised to be consistent with Central Characterization Project (CCP) Nondestructive Examination (NDE) procedures and made additional editorial changes.

RECORD OF REVISION (Continued)

Revision Number	Date Approved	Description of Revision
10	07/09/2008	Revised to address U.S. Department of Energy (DOE) Carlsbad Field Office (CBFO) Corrective Action Request (CAR) Number CAR-08-021 and New Mexico Environmental Department (NMED) Observer Inquiry from Audit A-08-16. Also, revised to maintain control of internal package/items so that payload containers are surveyed at <200 millirem per hour (mrem/hr).
11	11/12/2008	Revised to incorporate concurrent use with CCP-TP-163, <i>CCP Standard Visual Examination of Records</i> .
12	12/01/2008	Minor revision to add notes for clarification of visual examination (VE) of record.
13	03/11/2009	Revised to address the U.S. Department of Energy (DOE) Carlsbad Field Office (CBFO) Corrective Action Report (CAR) Number 09-015 and Environmental Protection Agency (EPA) Issue Numbers INL-CCP-RH-VE-T1-002CR, 003CR, and 007CR.
14	06/30/2010	Revised to incorporate modifications to Hazardous Waste Facility Permit. Revised to address CBFO Corrective Action Report (CAR) 10-019. Revised to address procedural steps, to accommodate the visual examination (VE) process for newly generated waste and to make additional editorial changes.
15	12/29/2010	Revised to clarify independent technical reviewer (ITR) independence.
16	04/25/2011	Revised to remove recording location and clarify transportation packaging requirements.
17	06/04/2013	Revised to incorporate the Nuclear Waste Partnership (NWP) transition changes.
18	09/25/2013	Revised to address Carlsbad Field Office (CBFO) Corrective Action Report (CAR) 13-051.

TABLE OF CONTENTS

1.0	PURPOSE.....	6
1.1	Scope.....	6
2.0	REQUIREMENTS.....	7
2.1	References	7
2.2	Training Requirements.....	7
2.3	Equipment List	7
2.4	Precautions and Limitations.....	7
2.5	Prerequisite Actions.....	8
2.6	Definitions	8
3.0	RESPONSIBILITIES.....	10
3.1	Site Project Manager (SPM)	10
3.2	Visual Examination Expert (VEE)	10
3.3	Visual Examination Operator (VEO)	10
3.4	Independent Technical Reviewer (ITR).....	10
3.5	Vendor Project Manager (VPM).....	10
4.0	PROCEDURE.....	11
4.1	General Information and Performance Checks.....	11
4.2	Previously Packaged Input Waste Container Preparation.	15
4.3	Output Waste Container Verification.....	16
4.4	Visual Examination (VE)	18
4.5	Container Lid Installation and Closure Verification	25
4.6	Batch Data Report Preparation.....	26
4.7	VE Independent Technical Review	27
4.8	Newly Generated Waste Container Data Submission	27
5.0	RECORDS.....	28

LIST OF TABLES

Table 1. Prohibited Items	29
Table 2. Layers of Confinement	30
Table 3. Waste Material Parameters	31
Table 4. Waste Item Weights and Weighing Codes	32

LIST OF ATTACHMENTS

Attachment 1 – CCP Waste Visual Examination General Information Form	35
Attachment 2 – CCP Waste Visual Examination Data Form	36
Attachment 3 – CCP Waste VE Independent Technical Reviewer Checklist	41
Attachment 4 – CCP Waste VE Batch Data Report Table of Contents	43
Attachment 5 – CCP Waste VE Batch Data Report Cover Sheet	44
Attachment 6 – CCP Newly Generated Waste Container Data	45

1.0 PURPOSE

CCP-PO-001, *CCP Transuranic Waste Characterization Quality Assurance Project Plan*, Section C-3c, requires that containers be examined to verify the physical form of the waste and to identify items that are prohibited from disposal at the Waste Isolation Pilot Plant (WIPP). This procedure establishes how to perform visual examination (VE) of contact-handled (CH) transuranic (TRU) waste containers, which may include the removal of prohibited items; and how to prepare and review Batch Data Reports (BDRs) generated from the VE process. This procedure is designed to be accomplished in conjunction with Host site facility operating procedures that address the use of those facilities for VE. All Host site requirements for health, safety, and operations in the work place will be addressed in a Host site procedure.

1.1 Scope

This procedure applies to retrievably stored and newly generated S3000 homogeneous solids, S4000 soils/gravel, and S5000 debris waste streams. VE will be used when necessary to examine a waste container to verify its physical form and to detect and remediate items that are prohibited from disposal at the WIPP.

VE cannot identify prohibited items imbedded in forms, such as S3000 and S4000, when the material is not removed from the characterized container.

VE may be performed on S3000 or S4000 when the material is not removed from the characterized container if Carlsbad Field Office (CBFO) approves the method for the specific waste form, typically from a surveillance.

There are two methods allowed for performing a VE process. Method 1 uses one VE Operator (VEO) with audio/video recording of the process, and Method 2 uses two VEOs (without audio/video recording of the process).

Full use of this procedure is **NOT** currently authorized at Los Alamos National Laboratory (LANL), in that processing of a prohibited item(s) found during VE of homogeneous solid waste containers is **NOT** authorized at this time.

2.0 REQUIREMENTS

2.1 References

Baseline Documents

- CCP-PO-002, *CCP Transuranic Waste Certification Plan*
- CCP-PO-003, *CCP Transuranic Authorized Methods for Payload Control (CCP CH-TRAMPAC)*

Referenced Documents

- CCP-PO-001, *CCP Transuranic Waste Characterization Quality Assurance Project Plan*
- CCP-QP-002, *CCP Training and Qualification Plan*
- CCP-QP-005, *CCP TRU Nonconforming Item Reporting and Control*
- CCP-QP-008, *CCP Records Management*

2.2 Training Requirements

- 2.2.1 Personnel performing this procedure will be trained and qualified in accordance with CCP-QP-002, *CCP Training and Qualification Plan*, prior to performing this procedure.

2.3 Equipment List

- 2.3.1 Torque Wrenches
- 2.3.2 Certified VE Scale, as needed
- 2.3.3 Certified Container Scale
- 2.3.4 Certified Weights

2.4 Precautions and Limitations

- 2.4.1 Processing of prohibited item(s) found during VE of homogeneous solid waste containers is **NOT** authorized at LANL at this time.
- 2.4.2 Containers with a total dose rate >200 millirem per hour (mrem/hr) at surface **SHALL NOT** be processed under this procedure.

2.4.3 Host site procedures may be used in conjunction with this procedure in order to handle anomalous conditions, as necessary.

2.5 Prerequisite Actions

2.5.1 Prepare containers for VE in accordance with Host site procedures.

2.5.2 Ensure **NO** hold tags that would prevent the performance of VE are on the containers before proceeding.

2.5.3 Review the radiation levels of the containers before proceeding.

2.5.4 Ensure Method 1 or Method 2 for performing the VE has been determined by the Site Project Manager (SPM).

2.5.5 Ensure Input Waste Container(s) is on the Acceptable Knowledge (AK) Tracking Spreadsheet (if applicable).

2.5.6 For Newly Generated waste processing, confirm that waste is described in an approved AK Summary Report.

2.6 Definitions

2.6.1 **Calibration Due Date** – The date recorded on a tool's or scale's sticker/label that indicates the last date the tool or scale is in calibration.

2.6.2 **Method 1** – One VEO with audio/video recording of the process created during VE.

2.6.3 **Method 2** – Two VEOs (without audio/video recording of the process) performing VE. Each VEO shall observe for themselves the waste being placed in the waste container or the contents within the examined waste container when the waste is not removed.

2.6.4 **Outermost Container** – Outer container that holds waste at time of VE.

2.6.5 **Internal Container** – A container inside the outermost container examined during visual examination. Drum liners, liner bag, plastic bags used for contamination control, capillary-type labware, and debris not designed to hold liquid at the time of original waste packaging are not internal containers.

2.6.6 **Observable Liquid** – Liquid that is observable by a qualified operator performing VE of the waste.

- 2.6.7 **Field Records** – Records which are generated in the field under adverse conditions (i.e., personnel are wearing Anti Cs), which need to be transcribed into a final format for legibility. Field records shall be obtained using the forms from this procedure to ensure the required information is obtained. The field record shall be signed and dated by the operator(s) performing the task. Field records that are transcribed will be included in the BDRs to ensure the absence of transcription errors.
- 2.6.8 **Tamper Indicating Device (TID)** – A device with a unique identifier that is used when a package is uncontrolled.

3.0 RESPONSIBILITIES

3.1 Site Project Manager (SPM)

3.1.1 Determines the use of Method 1 or Method 2 for performing a VE process.

3.2 Visual Examination Expert (VEE)

3.2.1 Responsible for the overall direction and implementation of the VE operations.

3.3 Visual Examination Operator (VEO)

3.3.1 Performs the VE.

3.3.2 Assembles, paginates, and reviews the BDR.

3.4 Independent Technical Reviewer (ITR)

NOTE

The Independent Technical Reviewer (ITR) will be someone, other than the VEO, who is qualified to have performed the work and who was not involved in the generation or recording of the data under review.

3.4.1 Reviews the BDR.

3.5 Vendor Project Manager (VPM)

3.5.1 Ensures the safe operation of the VE process.

3.5.2 Ensures all personnel maintain proficiency and identifies any additional training that may be required.

3.5.3 Coordinates remediation of prohibited items with the Host site.

3.5.4 Facilitates container tracking and management.

4.0 PROCEDURE

NOTE

Weights will be recorded in kilograms (kg) out to one tenth of a kg.

A Testing Batch includes all data pertaining to VE for up to 20 waste containers without regard to waste matrix.

If, during the performance of VE, multiple Input Waste Containers are used to produce an Output Waste Container or multiple Output Waste Containers are generated from an Input Waste Container, separate data sections shall be completed for each waste container, as applicable.

N/A shall be marked in all fields of the Attachments that are not applicable.

The sections of this procedure may be performed independently and concurrently to accommodate the VE process; however, the internal steps should be performed in order. The internal steps in this procedure may only be performed in a different order than specified when required by Host site facility-specific operation procedures or as otherwise directed in that section.

For VE of Newly Generated Waste, Section 4.2 is not performed.

Remediation of prohibited items (e.g., removal, absorption, etc.) may be performed in unison with Waste Material Parameter (WMP) identification (ID).

Prohibited items are listed in Table 1, Prohibited Items, are remediated per Host site procedures, as necessary.

Any liquid in non-transparent internal containers, detected from shaking the internal container, will be handled by assuming that the internal container is filled with liquid.

Data changes and requisite approvals SHALL be made by the individual or individuals who originally collected the data, **OR** by an equally-qualified individual or individuals authorized to change data.

VEO

4.1 General Information and Performance Checks

- 4.1.1 Record Batch Data Report No. on Attachment 1, CCP Waste Visual Examination General Information Form, and Attachment 2, CCP Waste Visual Examination Data Form, (xxVEzzyyyy - where xx is the Site Identifier [e.g., LA for LANL], zz is the VE area identifier, and yyyy is a sequential number for that site).

- [A] Record the following information on Attachment 1:
 - [A.1] Mark applicable VE process to be performed.
 - [A.2] Mark VE Method used.
 - [A.3] Site ID
 - [A.4] Examination Date
 - [A.5] Procedure No.
 - [A.6] Revision No.

4.1.2 Camera(s) Check (Method 1)

NOTE

If the VE continues for more than one day, a camera check will be conducted prior to continuing the VE for the new day. The results of the second camera check will be recorded on the audio/video media and noted in the Comments block on Attachment 1. The audio/video camera will be checked prior to each VE BDR to ensure proper operation of the camera. The test image segment SHALL remain intact without being erased or recorded over.

- [A] **IF** audio/video recording will **NOT** be created, **THEN** mark N/A on Attachment 1, **AND GO TO** step 4.1.3.
- [B] Record the Date, Container ID Number(s), BDR Number, and the Audio/Video Media Recording Number on the Audio/Video Media Label.
- [C] Ensure the audio/video media is at its beginning or at the point where recording was stopped the previous day.
- [D] Start the camera(s).
- [E] Record a test image and narrative.
- [F] Review the test segment by playing the audio/video media, **AND** verify the image is in focus and the narration is clear.

- [G] Save the test recording (i.e., stop the audio/video media at the end of the playback).
- [G.1] **IF** the results are UNSAT,
THEN notify the Visual Examination Expert (VEE) and Vendor Project Manager (VPM).
 - (a) **WHEN** the camera/audio/video media recording system is operational,
THEN repeat steps 4.1.2[D] through 4.1.2[H].
- [H] Record the results of the camera/audio/video media recording check as SAT on Attachment 1.

4.1.3 Scale Operational Check

NOTE

If the VE continues for more than one day, a scale operational check will be conducted prior to continuing the VE for the new day. The results will be recorded in the Comments block on Attachment 1.

The VEE will determine when the VE Scale or the Container Scale will not be used. This section will be performed when scales are used in the performance of the VE process.

- [A] VE Scale
 - [A.1] **IF** VE Scale is **NOT** used,
THEN mark N/A on Attachment 1, **AND GO TO** step 4.1.3[B].
 - [A.2] Start the camera(s) in the record mode for the Scale Operational Check, as applicable.
 - [A.3] Verbally record the Scale Serial/ID Number and the Calibration Due Date on the audio/video media, if in use, **AND** record the data on Attachment 1.
 - [A.4] Place test weight(s) on the scale to verify the scale's operability.
 - (a) **IF** the reading is within the scales calibration tolerance,
THEN record as SAT on Attachment 1.
 - (b) **IF** the reading is **NOT** within the scales calibration tolerance,
THEN STOP WORK, AND notify the VPM,
AND record as UNSAT on Attachment 1.

[A.5] Record the following Test Weight Information data on Attachment 1:

- (a) Test Weight Serial/ID Number and Calibration Due Date for each weight used.
- (b) Test Weight Total placed on the scale.
- (c) Tray Weight, as required.

[A.6] With the tray placed on the scale, set the Tare to zero, as required.

[B] Container Scale

[B.1] Record the Scale Serial/ID Number and the Calibration Due Date on Attachment 1.

[B.2] Perform an operational check of the scale as follows:

- (a) Place a known check weight(s) on the scale, **AND** verify the scale reads within 1.0 percent of the check weight used.
 - (a.1) **IF** the scale reads within the operational range, **THEN** record SAT on Attachment 1.
 - (a.2) **IF** the scale reads outside of the operational range, **THEN, SUSPEND WORK, AND** notify the VPM **AND** record as UNSAT on Attachment 1.

4.1.4 Record the following on Attachment 1:

[A] Method 1

VEO 1

[A.1] Print name, sign, and date.

[A.2] Mark VEO 2 as N/A.

[B] Method 2

VEO 1

[B.1] Print name, sign, and date.

VEO 2

[B.2] Print name, sign, and date.

4.2 Previously Packaged Input Waste Container Preparation.

NOTE

Section 4.2 is not performed for VE of Newly Generated Waste.

4.2.1 Record the Input Waste Container ID in Section 1, Output Waste Container Data, of Attachment 2.

NOTE

When performing Method 1, audio/video media recording is created to document activities that manipulate waste during the VE. It is expected that recording will be halted whenever VE is suspended. If recording is suspended, the reason is verbally documented on the audio/video media.

4.2.2 Position the camera(s) to record the VE of the Input Waste Container and its contents, **AND** start the camera(s) (if using Method 1).

4.2.3 Record verbally the Input Waste Container ID (if using Method 1).

NOTE

The Radiological Control Technician (RCT) SHALL be present to conduct radiological surveys in accordance with the Host site Interface Document and Host site procedures.

4.2.4 Remove/verify removal of the input waste container lid in accordance with Host site procedures.

[A] **IF** a rigid liner lid is present, **AND** the rigid liner lid is **NOT** vented (>0.3 in.) or filtered, **SUSPEND WORK, AND** notify the VPM

[B] Remove the rigid liner lid, if applicable, in accordance with Host site procedures.

NOTE

VE on large or heavy packages/items SHALL be performed as they are removed from the container.

Waste from the Input Waste Container may be segregated for VE as determined by the VEO.

4.2.5 Remove/verify removal of the waste from the Input Waste Container, as appropriate.

4.2.6 Open/verify opening of waste package/items, as appropriate.

4.3 Output Waste Container Verification

4.3.1 Record the following data for the Output Waste Container in Section 1 of Attachment 2:

[A] Output Waste Container ID

[B] Waste Stream ID

[C] Container Type (e.g., 55-gallon drum)

[D] TRUCON Code

[E] Waste Matrix Code

[F] Audio/Video Media Recording Number (if applicable)

NOTE

The RCT SHALL be present to conduct radiological surveys in accordance with the Host site Interface Document and Host site procedures.

4.3.2 Perform the following, **AND** record the applicable data for the Output Waste Container in Section 1 of Attachment 2:

[A] Record Output Waste Container Tare Weight.

[B] Remove the container lid in accordance with Host site procedures, as applicable.

[C] **IF** a rigid liner is **NOT** present,
THEN perform the following:

[C.1] Record NO, Rigid Liner Present?

- [C.2] Record NO, Rigid Liner Lid Present?
- [C.3] Record N/A, Rigid Liner Lid is Vented (>0.3 in.), Filtered, and Serial No.?
- [C.4] GO TO step 4.3.2[G].
- [D] **IF** a rigid liner is present,
THEN record YES, the Type of Liner, and Thickness.
- [E] **IF** a rigid liner lid is NOT present,
THEN record NO **AND** perform the following:
 - [E.1] Record N/A, Rigid Liner Lid is Vented (>0.3 in.) or Filtered?
 - [E.2] GO TO step 4.3.2[G].
- [F] **IF** a rigid liner lid is present,
THEN record YES, **AND** perform the following:
 - [F.1] **IF** the rigid liner lid is vented (punctured) **AND** the puncture is >0.3 inches,
THEN record Vented, **AND** measure and record the Hole Size.
 - [F.2] **IF** the rigid liner lid is filtered,
THEN record Filtered, **AND** the Model No. and Serial No.
 - [F.3] Remove the rigid liner lid, if applicable, in accordance with Host site procedures.
- [G] **IF** a bag liner is used,
THEN record YES.
- [H] **IF** NO bag liner is used,
THEN record NO.

4.4 Visual Examination (VE)

NOTE

Steps 4.4.1 through 4.4.8 may be repeated, as necessary, until loading of the Output Waste Container is complete.

Waste container(s) SHALL be closed and have a TID applied when access to the container is uncontrolled.

A new Section 2 of Attachment 2 SHALL be used each time the waste container is opened, the TID is removed, and waste is added.

Steps 4.4.1 through 4.4.5 may be performed in any order to accommodate the process.

Individual package/item(s) may be inspected and have a Section 2 of Attachment 2 completed for each, prior to bag out. A TID may be applied to these package/item(s) for verification purposes.

- 4.4.1 **IF** a container TID is applied to the waste container, **THEN** remove TID in accordance with Host site procedures, **AND** record Removed Container TID Number in Section 2 of Attachment 2, as required.
 - 4.4.2 Remove lid in accordance with Host site procedures, as required.
 - 4.4.3 Position that camera(s) to record the VE of the Output Waste Container and its contents, **AND** start the camera(s), as applicable.
 - 4.4.4 Record verbally the Output Waste Container ID, as applicable.
-

NOTE

When performing Method 1, the camera(s) may require repositioning to record (audio/video) the weighing and final weight of each package from the container.

NOTE

Potential hazardous wastes identified by visual examination include:

- Batteries
 - Circuit Boards (may be contained in electrical equipment)
 - Cathode Ray Tube (CRT)-based computer monitors or televisions
 - Lead
 - Mercury, mercury containing equipment (e.g., barometers, switches, thermometers, thermostats)
 - Light Bulbs (both incandescent and fluorescent)
-

4.4.5 Examine the waste, **AND** record the applicable data in Section 2 of Attachment 2:

- [A] Date.
 - [B] Record Package Number, as applicable.
 - [C] Record Package TID Number, as applicable.
-

NOTE

VEE will make determination on the disposition of waste > 200 mrem/hr at the surface.

- [D] **IF** the waste is > 200 mrem/hr at the surface, **AND** is going to be placed into the Output Drum, **THEN** perform the following:
 - (a) **WHEN** loading the waste, **THEN** position as close as reasonably achievable to the side of the output container.
 - (b) **IF** the waste is a can with material in it, **THEN** document it in the Comments block of Section 1 of Attachment 2.
- [E] Record Waste Description.

- [F] Determine the contents by WMP category per Table 3, **AND** document as follows:
- [F.1] Ensure that there are no prohibited items present in the waste package/item.

NOTE

WMP weight and the method used to determine the weight of the WMP from Table 4, Waste Item Weights and Weighing Codes, may be recorded in Steps 4.4.5[F.2] **OR** 4.4.9 **OR** 4.4.14[A] to accommodate the process.

- [F.2] Weight of each WMP and the method used to determine the weight of the WMP from Table 4, as required.
- [G] Place a TID on the package/item **AND** record the number, as required
- [H] Place the package/item into the Output Waste Container as needed.
- [I] **IF** package/item(s) are not to be direct loaded, **THEN** record the following in Section 2 of Attachment 2:

VEO 1

- [I.1] Print name, sign, and date to annotate VE of package/item(s) is complete, **AND** NO Prohibited Items, listed in Table 1, are present.
- (a) **IF** Method 1 is being performed, **THEN** mark VEO 2 as N/A.

VEO 2

- [I.2] **IF** Method 2 is being performed, **THEN** print name, sign, and date to annotate VE of package/item(s) is complete, **AND** NO Prohibited Items, listed in Table 1, are present.

4.4.6 **IF** loading an Output Waste Container(s) with package/items(s) that were previously inspected, **THEN** obtain appropriate Section 2(s) for items being loaded **AND** verify the information recorded on the Section 2(s) matches the package/items.

[A] **IF** package/item information recorded **DOES NOT** match the package/item, **THEN** SUSPEND work and notify VPM.

4.4.7 Record Output Waste Container ID in Section 2 of Attachment 2.

4.4.8 Place the package/item into the Output Waste Container, as needed.

4.4.9 Record the weight of each WMP and the method used to determine the weight of the WMP from Table 4 in Section 2 of Attachment 2, as required.

4.4.10 **IF** additional waste packages/item(s) are to be added at a later time and access to the waste container is going to be left uncontrolled, **THEN** perform the following:

[A] Apply the container TID to the waste container in accordance with Host site procedures, **AND** record the applied TID Number on Section 2 of Attachment 2, as required.

VEO

4.4.11 **IF** loading an Output Waste Container(s) with package/item(s) that were previously inspected, **AND** the loading is completed for the day, **THEN** record the following on Section 2 of Attachment 2:

VEO 1

[A.1] Print name, sign, and date to annotate loading of Output Waste Container is complete.

(a) **IF** Method 1 is being performed, **THEN** mark VEO 2 as N/A.

VEO 2

[A.2] **IF** Method 2 is being performed, **THEN** print name, sign and date.

4.4.12 **WHEN** loading of the Output Waste Container is complete,
THEN perform the following:

- [A] Paginate page(s) of Section 2 of Attachment 2.
- [B] Record the data listed below for the Output Waste Container in Section 1 of Attachment 2 as follows:

NOTE

The Volume Utilization Percentage (VUP) of the container is based on the highest level of the bulk of the waste. Items (e.g., pipe, scrap angle, plastic bags) which protrude above the bulk of the waste are **NOT** to be included in the fill percent determination. The fill percent is to be recorded in five percent increments (e.g., 35%, 40%, 45%).

- [B.1] Estimate the VUP.
- [B.2] Record NO or YES, to indicate whether the waste is consistent with the assigned Waste Stream Description and Waste Matrix Code.
 - (a) **IF NO,**
THEN initiate a Nonconformance Report (NCR) in accordance with CCP-QP-005, **AND** record the NCR No. in Section 1 of Attachment 2.
- [B.3] Record Closure Method for layers of confinement, if applicable (see Table 2, Layers of Confinement).
- [B.4] Using Table 2, determine the number and record the Number of Layers of Confinement, as applicable.
- [C] GO TO Section 4.5 for Output Waste Container Lid Installation and Closure Verification.

4.4.13 Apply the TID to the waste container **AND** record the applied TID Number on Section 2 of Attachment 2, as required.

4.4.14 Record the Gross Weight by weighing the Output Waste Container after it is released to be moved to its staging area, in Section 1 of Attachment 2.

- [A] Record the weight of each WMP and the method used to determine the weight of the WMP from Table 4 in Section 2 of Attachment 2, as required.

- 4.4.15 Perform the following, **AND** record the data in Section 3 of Attachment 2:
- [A] Record Output container ID.
 - [B] Weigh or use Table 4 to estimate the weight of the Packaging Materials of the Output Waste Container, **AND** Total Packaging Weight.
 - [C] Weights of the WMPs by reviewing the WMPs listed in Section 2(s) of Attachment 2, **AND** combine all consistent WMPs.
 - [D] Total the WMPs, **AND** record the Total WMP Weight.
 - [E] Ensure the total of the WMP weights (Section 3, Attachment 2) is within five percent of the net weight of waste of the Output Waste Container obtained from subtracting the tare weight from the gross weight (Section 1, Attachment 2).
- 4.4.16 Record the following information in Section 4, Prohibited Item(s) Summary, of Attachment 2:
- [A] Output Waste Container ID.
 - [B] **IF** Section 2(s) of Attachment 2 were completed for individual package/items(s), **THEN** verify signatures in Section 2(s) of Attachment 2, answer questions in Section 4 of Attachment 2 **NO OR NA**, as applicable.
 - [C] **IF** packaged/item(s) were direct loaded into Output Waste Container, **THEN** answer NO, YES, or N/A appropriately, to the questions in Section 4 with all explanations annotated in the Comments block of Section 4 of Attachment 2.
 - [C.1] **IF** YES is marked in Section 4, **THEN** initiate an NCR in accordance with CCP-QP-005, **AND** record the NCR No. in Section 1 of Attachment 2.

4.4.17 Determine (e.g., via Radiological Label or Dose Rate Survey) if the total dose rate of the waste container is >200 mrem/hr at the surface, **AND** record YES or NO in Section 1 of Attachment 2.

[A] **IF** the total dose rate is >200 mrem/hr at the surface, **THEN** initiate an NCR in accordance with CCP-QP-005, **AND** record NCR No. in Section 1 of Attachment 2.

4.4.18 STOP the camera(s) recording when VE is complete, as applicable.

4.4.19 Ensure YES or NO is recorded in Section 1 of Attachment 2 to indicate if any NCRs are associated with the applicable waste container.

[A] **IF YES,**
THEN ensure the appropriate NCR number(s) are recorded.

NOTE

All areas in the attachments that DO **NOT** have completed information SHALL be marked N/A.

4.4.20 Record the following in Section 5, Approvals, of Attachment 2:

[A] Method 1

VEO 1

[A.1] Print name, sign, and date to annotate that the VE process has been completed.

[A.2] Mark VEO 2 as N/A.

[A.3] Prepare two (2) audio/video media recordings.

[B] Method 2

VEO 1

[B.1] Print name, sign, and date to annotate that the VE process has been completed.

VEO 2

[B.2] Print name, sign, and date to annotate that the VE process has been completed.

VEO

4.4.21 Affix new CCP Container Traveler(s) (Labels) to the Output Waste Container(s) in accordance with appropriate CCP Site Container Management procedure, as necessary.

4.4.22 **WHEN** all containers for a batch are complete,
THEN GO TO Section 4.6.

4.5 Container Lid Installation and Closure Verification

NOTE

Steps 4.5.1[A], [B], [C], [D], and [E] may be performed at any time during or after, Output Waste Container setup.

4.5.1 Perform the following, **AND** record the applicable data, for the Output Waste Container, in Section 1 of Attachment 2:

- [A] Verify the Filter and Lid Ring/Bolt Torque Wrenches to be used are in calibration.
- [B] Filter Torque Wrench Serial/ID Number and Calibration Due Date.
- [C] Container Filter Model(s) and Serial Number(s).
- [D] Ensure the filter is installed in accordance with the manufacturer's instructions.
- [E] Torque the filter to the manufacturer's specifications, **AND** record the Torque Value.
- [F] Ensure the container lid is installed in accordance with the manufacturer's instructions.
- [G] Lid Ring/Bolt Torque Wrench Serial/ID Number and Calibration Due Date.
- [H] Torque the Container Lid Ring/Bolt(s) to the manufacturer's specifications, **AND** record the Torque Value.

4.5.2 GO TO step 4.4.13 as applicable.

VEO

4.6 Batch Data Report Preparation

4.6.1 Verify Field Records have been transcribed into the appropriate forms.

4.6.2 Assemble the following data for the BDR ensuring that the BDR number and, Examination Date, and Output Waste Container ID(s), as needed, are recorded on each Attachment:

[A] Attachment 5, CCP Waste VE Batch Data Report Cover Sheet

[B] Attachment 4, CCP Waste VE Batch Data Report Table of Contents

[C] Attachment 1, CCP Waste VE General Information Form

[D] Attachment 2, CCP Waste Visual Examination Data Form

[E] Attachment 3, CCP Waste VE Independent Technical Reviewer Checklist

[F] Copies of NCRs, if applicable

[G] Field Records, if applicable

4.6.3 Paginate the BDR.

4.6.4 Complete Attachment 4.

4.6.5 Forward the BDR package and the audio/video media, if applicable, to the ITR.

4.7 VE Independent Technical Review

NOTE

The independent technical review is conducted by an individual who is qualified to have performed the initial work, but who is **NOT** directly responsible for performing the work. The ITR can **NOT** review his/her own work.

If any item on Attachment 3 is marked NO and the condition **CAN NOT** be mitigated, an NCR will be initiated, per CCP-QP-005, **AND** only as a single NCR that identifies all deficiencies.

Independent Technical Reviewer (ITR)

- 4.7.1 Review the BDR to the criteria in Attachment 3, **AND** document.
- 4.7.2 Items marked NO require explanation in the Comments block, **AND** items marked NA may require explanation in the Comments block, as necessary to clarify.
- 4.7.3 Print, sign, and date Attachment 3 and Attachment 5.
- 4.7.4 Submit the BDR and the audio/video media, if applicable, to CCP Records in accordance with CCP-QP-008, *CCP Records Management*.

4.8 Newly Generated Waste Container Data Submission

VPM/Designee

- 4.8.1 Complete Attachment 6, CCP Newly Generated Waste Container Data, for newly generated waste containers generated during the performance of VE for the BDR.
- 4.8.2 Print name, sign, and date Attachment 6.
- 4.8.3 Submit the Attachment 6 to CCP records in accordance with CCP-QP-008. Transmit a copy of Attachment 6 to the cognizant Acceptable Knowledge Expert (AKE).

5.0 RECORDS

5.1 Records generated during the performance of this procedure are maintained as Quality Assurance (QA) records in accordance with CCP-QP-008. The records are the following:

5.1.1 QA/Lifetime

- [A] Batch Data Report (BDR)
 - [A.1] Attachment 1 – CCP Waste Visual Examination General Information Form
 - [A.2] Attachment 2 – CCP Waste Visual Examination Data Form
 - [A.3] Attachment 3 – CCP Waste VE Independent Technical Reviewer Checklist
 - [A.4] Attachment 4 – CCP Waste VE Batch Data Report Table of Contents
 - [A.5] Attachment 5 – CCP Waste VE Batch Data Report Cover Sheet
 - [A.6] Copies of NCRs, if applicable
 - [A.7] Field Records, if applicable
- [B] Attachment 6 – CCP Newly Generated Waste Container Data

5.1.2 QA/Nonpermanent

- [A] Two (2) Audio/Video Media Recordings (VHS Tape or DVD), if applicable

Table 1. Prohibited Items

LIST OF PROHIBITED ITEMS
Liquid waste is not acceptable at WIPP <ul style="list-style-type: none"> - Observable liquid shall be no more than 1 percent by volume of the outermost container. - Internal containers with more than 60 milliliters or 3 percent by volume observable liquid, whichever is greater, are prohibited. - Containers with Hazardous Waste Number U134 assigned shall have no observable liquid. - Overpacking the outermost container that was examined or redistributing untreated liquid within the container shall not be used to meet the liquid volume limits.
Non-Radionuclide Pyrophorics
Non-mixed hazardous waste
Incompatible wastes (Wastes that are incompatible with backfill, seal and panel closure materials, container and packaging materials, shipping container materials, and/or other wastes.)
Explosives
Compressed Gases/Pressurized containers (e.g., aerosol cans)
Polychlorinated Biphenyl (PCB) Liquids
Ignitables
Corrosives
Reactive waste
Sealed containers greater than 4 liters
Heat-sealed bags (unvented) with a surface area <390 square inches
Sharp or heavy objects (Large, bulky dense objects with sharp and obtrusive members or components with dispersible Form 1 and 2) (e.g., steel or concrete boxes, steel plate, electric motors, steel pipe, or concrete blocks) not adequately blocked, braced, or packaged.
Waste that has ever been managed as high-level waste and waste from tanks specified in Table C-8 of CCP-PO-001.

Table 2. Layers of Confinement

Container ^a		Plastic Bags		Metal Cans	
Twist and Tape	CTT/STT	Twist and Tape	TT	Sealed	C
Fold and Tape	CFT/SFT	Fold and Tape	FT		
Other Closure	COC/SOC	Other Closure	OC		
Vented	(add) F	Vented	(add) F	Vented	(add) F

^a Container: "C" - Container
"S" - Standard Waste Box (SWB)

Liner lids and packaging layers are distinguished as follows:

Layers of confinement are defined, per Section 3.8 of the CH-TRU Payload Appendices, as any boundary that restricts, but does not prohibit, the release of hydrogen gas across the boundary.

Examples of confinement layers are plastic bags (smaller inner bags or larger container liner bags) with the allowable closure methods described below and metal containers fitted with filter vents.

- Fold and tape closure
- Twist and tape closure
- Heat-seal closure or twist and tape closure with a minimum of one filter vent

NOTE

Punctured plastic bags, liner bags open at the end, pieces of plastic sheeting wrapped around the waste for handling, and metal containers with lid closures that allow free hydrogen release are not considered as confinement layers.

Table 3. Waste Material Parameters

Waste Material Parameter	Description
Iron-based metals/alloys (IM)	Iron and steel alloys in the waste; does not include the waste container materials
Aluminum-based metals/alloys (AM)	Aluminum or aluminum-based alloys in the waste materials
Other metals (OM)	All other metals found in the waste materials
Other inorganic materials (OI)	Nonmetallic inorganic waste, including concrete, glass, firebrick, ceramics, sand, and inorganic sorbents
Cellulosics (C)	Materials generally derived from high polymer plant carbohydrates (e.g., paper, cardboard, wood, cloth)
Rubber (R)	Natural or man-made elastic Latex materials (e.g., surgeon's gloves, leaded rubber gloves)
Plastics (waste materials) (PW)	Generally man-made materials, often derived from petroleum feedstock (e.g., polyethylene, polyvinylchloride)
Organic matrix (OR)	Cemented organic resins, solidified organic liquids, and sludges
Inorganic matrix (IN)	Any homogeneous materials consisting of sludge, or aqueous-based liquids which are solidified with cement, calcium silicate, or other solidification agents (e.g., waste water treatment sludge, cemented aqueous liquids, and inorganic particulate)
Soils (S)	Generally consists of naturally occurring soils which have been contaminated with inorganic waste materials
Steel (packaging materials) (ST)	Container (e.g., 208-liter [55-gal.] drums)
Plastics (packaging materials) (PP)	Liner (e.g., 90-mil polyethylene drum liner and plastic bags)

Table 4. Waste Item Weights and Weighing Codes

Page 1 of 3

ITEM	WEIGHT
3" Roll of Duct Tape	0.7 kg
3" Roll of Masking Tape	0.4 kg
10' Tape Measure	0.1 kg
Channel Lock Pliers	0.3 kg
Crescent Wrench	0.2 kg
Flashlight With Batteries	0.5 kg
Flashlight Without Batteries	0.1 kg
Flat File	0.4 kg
Hacksaw With Blade	0.5 kg
Hammer	0.6 kg
Large Open-End Wrench	0.5 kg
Razor Knife	0.1kg
Scissors	0.2 kg
Vice Grip Pliers	0.5 kg
Welder's Chipping Hammer	0.4 kg
Wire Brush	0.1 kg
Wooden Folding Ruler	0.2 kg
Wooden Wedge	0.2 kg
13 oz. Aerosol Can ¼ Full	0.2 kg
17 oz. Aerosol Can Full of Liquid	0.5 kg
17" Section of 1" Electrical Conduit	0.5 kg
17" Section of 1" Sch 40 S/s Pipe	1.1 kg
2' X 4' Board 20" long	0.7 kg
Empty 2-Gallon Car-boy	0.7 kg
Empty 6-Gallon Car-boy	2.0 kg
Empty POC (Black Poly Liner)	154.2 kg
Empty POC (White Poly Liner)	145.1 kg
Empty SWB	290.3 kg
2-Gallon Car-boy ½ Full of Water	5.8 kg
6-Gallon Car-boy ½ Full of Water	14.0 kg
5-Gallon Metal Bucket	1.3 kg
Metal Can	0.2 kg
Metal Can (for salt wastes)	1.1 kg
Aluminum Sphincter Can	0.2 kg
Sand Bag ½ Full of Gravel	12.7 kg
Plastic Bag for Waste	0.6 kg
Liner Bags – Large	0.5 kg
Rad Bags – Medium and Small	0.1 kg
55-Gallon 10-mil Plastic Bag (each)	1.8 kg
55-Gallon 5-mil Plastic Bag (each)	0.3 kg
55-Gallon 12-mil Plastic Bag (each)	2.1 kg
O-ring Plastic Bag (e.g., sludge, organic setups)	9.0 kg

Table 4. Waste Item Weights and Weighing Codes (Continued)

Page 2 of 3

ITEM	WEIGHT
55-Gallon Drum PVC O-ring Bag (60.96 x 213.36 cm)	22.0 kg
55-Gallon Fiberboard Disk	48.0 kg
55-Gallon Drum Round Bottom 10-mil Liner	9.0 kg
(White) 55-Gallon Drum 90-mil Rigid Liner No Lid, used at LANL	4.3 kg
55-Gallon Drum 110-mil Rigid Liner	7.6 kg
(Black) 55-Gallon Drum 125-mil Rigid Liner No Lid, used at LANL	7.6 kg
55-Gallon Drum Poly Liner (122 x 122 x 213 cm)	12.0 kg
55-Gallon Cardboard Liner (graphite mold waste)	9.0 kg
55-Gallon Fiberboard Drum Liner (122 x 122 x 213 cm)	9.0 kg
55-Gallon Lead Liner, 180 cm long, 0.16 cm thick	23.0 kg
55-Gallon Lead Liner, 180 cm long, 0.32 cm thick	46.0 kg
Fiber Pack	13.0 kg
Fiber Pack Lead-Lined	66.0 kg
HEPA Filter (8 x 8 3-1/16)	1.0 kg
HEPA Filter (8 x 8 x 5-7/8)	1.9 kg
HEPA Filter (12 x 12 x 5-7/8)	2.5 kg
Lead Brick (5.1 x 10 x 20 cm)	12.0 kg
Oil-Dry	0.4 kg/liter
Vermiculite	0.1 kg/liter
Poly Bottles (1 gallon)	2.2 kg
Poly Bottles (1 liter)	0.5 kg
Setup Portland Cement	1.1 kg/liter
Uncured Portland Cement	2.9 kg/liter
Leaded Glovebox Glove	0.8 kg
Leaded Rubber Glove	2.5 kg
Leaded Rubber Glove	12.0 kg
Leaded Rubber Apron	2.4 kg
Leaded Rubber Apron	11.5 kg
Coveralls	0.9 kg
25' Plastic Suit Hose	2.3 kg
50' Plastic Suit Hose	5.0 kg
Plastic Suit Top and Pants	2.3 kg
55-Gallon Drum (painted – tan or white)	27.7 kg
55-Gallon Drum (painted – mustard yellow)	24.0 kg
55-Gallon Drum (painted – green)	30.0 kg
55-Gallon Drum (painted – grey)	26.3 kg
55-Gallon Drum (galvanized)	29.0 kg
85-Gallon Drum (painted)	37.2 kg

Table 4. Waste Item Weights and Weighing Codes (Continued)

ITEM	WEIGHT
Item Description (1 lb = 0.454 kgs) (All containers are 55-gal drums, unless otherwise noted)	
110-Gallon Drum (painted)	45.0 kg
Lead-Lined Drum (1/16" thick, 28" high by 72" long)	22.7 kg
Lead-Lined Drum (1/8" thick, 28" high by 72" long) (.4 lb/in. ³)	45.4 kg
Galvanized DOT 17C (Dull Finish) [Drum Bottom Labels 00040-00705]	31.7 kg
Galvanized (Shiny Drum and Lid Finish) [Drum Bottom Labels 01391 - 01568]	24.2 kg
Hanford Galvanized (Speckled Dull Finish - UNA1A2) [Drum Bottom Labels 00754 - 00933]	30.0 kg
Myers Galvanized (Shiny Finish - Labeled G5501) [Drum Bottom Labels 01200 - 01384]	22.7 kg
Myers Galvanized (Shiny Drum/Shiny Speckled Lid - Labeled G5501) [Drum Bottom Labels 00950 - 01150]	24.0 kg
Myers Yellow Painted	21.5 kg
Rocky Flats White Painted	27.2 kg
Black 90-mil Slip Fit Lid	7.4 kg
Black 110-mil Inner Lid	7.7 kg
Black 110-mil Beveled Top	7.4 kg
White 90-mil Slip Fit Lid	7.5 kg
125-mil Rigid Liner Lid	1.3 kg
B251 Bag - Tare Weight	0.1 kg
55-Gallon Fiberboard Liner (90 Mil)	3.7 kg
5-Gallon drum (LANL)	2.3 kg
7-Gallon drum (LANL)	2.8 kg
10-Gallon drum (LANL)	7.5 kg
30-Gallon drum (LANL)	16.4 kg

Weighing Notes and Codes	
^a Record weights in kg out to one-tenth of a kg.	
^b Method of Weighing Codes:	
E	Estimated by Operator.
W	Weight measured by the Operator.

Attachment 2 – CCP Waste Visual Examination Data Form

Page 1 of 5

Batch Data Report No.: _____

Section 1: Output Waste Container Data	
Input Waste Container ID, as applicable:	
Output Waste Container ID:	Waste Stream ID:
Container Type:	TRUCON Code: Waste Matrix Code:
Audio/Video Media Recording Number: <input type="checkbox"/> N/A	
Waste Container Weights:	
Tare Wt: _____ kg.	Gross Wt: _____ kg.
Rigid Liner Present? <input type="checkbox"/> NO <input type="checkbox"/> YES Type of Liner: <input type="checkbox"/> Lead <input type="checkbox"/> Plastic <input type="checkbox"/> Fiberboard <input type="checkbox"/> Other: Thickness: <input type="checkbox"/> 30-mil <input type="checkbox"/> 90-mil <input type="checkbox"/> 110-mil <input type="checkbox"/> 125-mil	Rigid Liner Lid Present? <input type="checkbox"/> NO <input type="checkbox"/> YES Rigid Liner Lid is Vented (>0.3 in.) or Filtered? <input type="checkbox"/> NO <input type="checkbox"/> YES <input type="checkbox"/> N/A <input type="checkbox"/> Vented: Hole Size: <input type="checkbox"/> N/A <input type="checkbox"/> Filtered: Model No.: <input type="checkbox"/> N/A Serial No.: <input type="checkbox"/> N/A
Bag Liner Present? <input type="checkbox"/> NO <input type="checkbox"/> YES	Volume Utilization Percentage: _____ %
Does the physical form of the waste match the Waste Stream Description (i.e., Homogeneous Solids, Soil/Gravel, or Debris Waste [including uncategorized metals])? <input type="checkbox"/> NO <input type="checkbox"/> YES	
Does the physical form of the waste match the Waste Matrix Code? <input type="checkbox"/> NO <input type="checkbox"/> YES	
Closure Method: Number of Layers of Confinement:	
<u>Filter Torque Wrench</u> Serial/ID No.: Calibration Due Date: Filter: Model No.: Serial No.: Torque Value:	<u>Lid Ring/Bolt Torque Wrench</u> Serial/ID No.: Calibration Due Date: Lid Ring/Bolt Torque Value:
Is total dose rate greater than 200mrem/hr? <input type="checkbox"/> NO <input type="checkbox"/> YES	
NCR(s) associated with the output container? <input type="checkbox"/> NO <input type="checkbox"/> YES NCR No.: _____ NCR No.: _____	
Comments:	

Attachment 2 – CCP Waste Visual Examination Data Form (continued) Page 3 of 5

Batch Data Report No.: _____

Output Waste Container ID: _____

Section 3: Packaging Material and Waste Material Parameters	
Packaging Material:	Estimated Weight (kg)
Steel (ST):	
Plastics (PP):	
Others:	
Total Packaging Weight:	
Waste Material Parameter:	Estimated Weight (kg)
Iron-based Metal/Alloys (IM):	
Aluminum-based Metals/Alloys (AM):	
Other Metals (OM):	
Other Inorganic Materials (OI):	
Cellulosics (C):	
Rubber (R):	
Plastics (waste materials) (PW):	
Organic Matrix (OR):	
Inorganic Matrix (IN):	
Soils (S):	
Total WMP Weight:	

Batch Data Report No.: _____ Output Waste Container ID: _____

Section 4: Prohibited Item(s) Summary (Questions answered "YES" will be explained in the Comments block)		
	Yes	No
Is there any observable liquid in internal containers, that is more than 60 milliliters or 3 percent by volume, whichever is greater?	<input type="checkbox"/>	<input type="checkbox"/>
Is the total volume of observable liquid in the outermost container GREATER than 1% of the container?	<input type="checkbox"/>	<input type="checkbox"/>
Is there detectable observable liquid in outermost containers with an EPA Hazardous Waste Number of U134?	<input type="checkbox"/>	<input type="checkbox"/>
Is there an indication of non-radionuclide pyrophoric materials, such as elemental potassium?	<input type="checkbox"/>	<input type="checkbox"/>
Is there an indication of hazardous wastes not occurring as co-contaminants with TRU mixed wastes (non-mixed hazardous wastes)?	<input type="checkbox"/>	<input type="checkbox"/>
Is there an indication of wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes (i.e., waste does NOT match TRUCON Code[s])?	<input type="checkbox"/>	<input type="checkbox"/>
Is there an indication of wastes containing explosives or compressed gases?	<input type="checkbox"/>	<input type="checkbox"/>
Is there PCB liquids present?	<input type="checkbox"/>	<input type="checkbox"/>
Is there an indication of the waste exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003)?	<input type="checkbox"/>	<input type="checkbox"/>
Is the physical form of the waste inconsistent with the Waste Stream Description or the Waste Matrix Code?	<input type="checkbox"/>	<input type="checkbox"/>
TRUPACT II Criteria		
Are there heat-sealed bags (unvented) GREATER than 4 liters and LESS than 390 square inches in the waste?	<input type="checkbox"/>	<input type="checkbox"/>
Were there Non-approved Closure Methods used on liner bags or inner bags greater than 4 liters?	<input type="checkbox"/>	<input type="checkbox"/>
Are there sealed containers GREATER than 4 liters?	<input type="checkbox"/>	<input type="checkbox"/>
Are there indications of inadequate protection (blocked or braced) for heavy and/or sharp objects?	<input type="checkbox"/>	<input type="checkbox"/>

Attachment 2 – CCP Waste Visual Examination Data Form (continued) Page 5 of 5

Batch Data Report No.: _____ Output Waste Container ID: _____

Section 4: Prohibited Item(s) Summary (Continued)

(Questions answered "YES" will be explained in the Comments block)

Comments:

Section 5: Approvals

Visual Examination Operator 1:

Print Name

Signature

Date

Visual Examination Operator 2:

Print Name

Signature

Date

Attachment 3 – CCP Waste VE Independent Technical Reviewer Checklist

Batch Data Report No.: _____

Page 1 of 2

Description			
1. Data generation and reduction were conducted in a technically correct manner in accordance with the methods used?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input type="checkbox"/> N/A
2. Was the correct revision of operating procedure used?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input type="checkbox"/> N/A
3. Are the waste material parameters (WMPs) entered correctly?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input type="checkbox"/> N/A
4. Verify the hand calculations on the VE Data Form for the following:			
a. WMP weight totals	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input type="checkbox"/> N/A
b. Weight totals	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input type="checkbox"/> N/A
c. Summed volume of observable liquid, as necessary	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input type="checkbox"/> N/A
d. The total of the WMP weights is within 5% of the net weight of waste of the Output Waste Container obtained from subtracting the tare weight from the gross weight.	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input type="checkbox"/> N/A
5. Is the data reported in the correct units and correct number of significant figures?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input type="checkbox"/> N/A
6. Has the data been reviewed for transcription errors?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input type="checkbox"/> N/A
7. Does the Testing Batch Report include VE for up to 20 containers?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input type="checkbox"/> N/A
8. BDR contents are complete and match the CCP Waste VE Batch Data Report Table of Contents?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input type="checkbox"/> N/A
9. Is all the data signed and dated in reproducible ink and by the individual(s) generating it?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input type="checkbox"/> N/A
10. Is all data recorded clearly, legibly, and accurately?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input type="checkbox"/> N/A
11. All changes to original data lined out, initialed and dated by the individual making the changes?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input type="checkbox"/> N/A
12. Were data changes made by the individual who originally collected the data or an equally qualified individual?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input type="checkbox"/> N/A
13. Did the physical form of the waste match the Waste Matrix Code and Waste Stream Description?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input type="checkbox"/> N/A

Attachment 3 – CCP Waste VE Independent Technical Reviewer Checklist (continued)

Batch Data Report No.: _____

Page 2 of 2

Description			
14. Was the waste in the Output Waste Container(s) examined for prohibited items?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input type="checkbox"/> N/A
15. Is there an adequate written description of the contents of each item?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input type="checkbox"/> N/A
16. Were the scale(s) in calibration prior to the VE and documented correctly?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input type="checkbox"/> N/A
17. Were the scale checks SAT prior to the VE and documented correctly?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input type="checkbox"/> N/A
18. Was the audio/video media recording properly prepared and labeled for each waste container?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input type="checkbox"/> N/A
19. Was the audio/video media recording check performed satisfactorily prior to the VE?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input type="checkbox"/> N/A
20. Precision: Was precision maintained by reconciling any discrepancies between the operator and the independent technical reviewer with regard to identification of waste matrix code, liquids in excess of TSDF-WAC limits, and compressed gases?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input type="checkbox"/> N/A
21. Accuracy: Was accuracy maintained by requiring operators to pass a comprehensive examination and demonstrate satisfactory performance in the presence of the VE expert during their initial qualification and subsequent requalification (operators on LOQI)?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input type="checkbox"/> N/A
22. Completeness: Is there a completed VE data form for each waste container in the BDR?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input type="checkbox"/> N/A
23. Were NCRs initiated as required?	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input type="checkbox"/> N/A
Comments:			
I have reviewed 100 percent of the container-specific and batch data in this report and find it acceptable.			
Independent Technical Reviewer:			
_____	_____	_____	
Printed Name	Signature	Date	

Attachment 4 – CCP Waste VE Batch Data Report Table of Contents

Batch Data Report No.: _____ Examination Date: _____

Table of Contents		
Item	Description	Page No.
1	CCP Waste VE Batch Data Report Cover Sheet	
2	CCP Waste VE Batch Data Report Table of Contents	
3	CCP Waste Visual Examination General Information Form	
4	CCP Waste Visual Examination Data Forms	
5	CCP Waste VE Independent Technical Reviewer Checklist	
6	Copy of NCRs (N/A, If Not Applicable)	
7	Field Records (N/A, If Not Applicable)	

Attachment 5 – CCP Waste VE Batch Data Report Cover Sheet

Batch Data Report No.: _____ Examination Date: _____

Waste Container ID Number:	
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	

Independent Technical Reviewer:		
_____	_____	_____
Print Name	Signature	Date

TABLE OF AUDITED DOCUMENTS

NUMBER	PROCEDURE NUMBER	REV	PROCEDURE TITLE
1.	CCP-PO-001	21	CCP Transuranic Waste Characterization Quality Assurance Project Plan
2.	CCP-PO-002	27	CCP Transuranic Waste Certification Plan
3.	CCP-PO-005	24	CCP Conduct of Operations
4.	CCP-PO-027	5	CCP/TRU Waste Processing Center/Oakridge National Laboratory Interface Document
5.	CCP-QP-002	37	CCP Training and Qualification Plan
6.	CCP-QP-005	24	CCP TRU Nonconforming Item Reporting and Control
7.	CCP-QP-008	22	CCP Records Management
8.	CCP-QP-010	24	CCP Document Preparation, Approval, and Control
9.	CCP-QP-016	19	CCP Control of Measuring and Testing Equipment
10.	CCP-QP-017	4	CCP Identification and Control of Items
11.	CCP-QP-021	10	CCP Surveillance Program
12.	CCP-QP-022	14	CCP Software Quality Assurance Plan
13.	CCP-QP-028	15	CCP Records Filing, Inventorying, Scheduling, and Dispositioning
14.	CCP-TP-113	18	CCP Standard Contact-Handled Waste Visual Examination
15.	WP 13-QA.03	23	Quality Assurance Independent Assessment Program
16.	WP 15-GM1002	2	Issues Management Processing of WIPP Forms

WP 13-QA.03
Revision 23

Quality Assurance Independent Assessment Program

Cognizant Department: Quality Assurance

Approved by: Val Cannon



A URS-led partnership with B&W and AREVA

Quality Assurance Independent Assessment Program
WP 13-QA.03, Rev. 23

TABLE OF CONTENTS

CHANGE HISTORY SUMMARY	3
ABBREVIATIONS and ACRONYMS	6
1.0 INTRODUCTION ¹	7
2.0 RESPONSIBILITIES	8
3.0 DEFINITIONS	9
4.0 PREPARATION FOR ASSESSMENTS	9
4.1 QA Independent Assessment Identification	9
4.2 QA Independent Assessment Scheduling	11
4.3 QA Independent Assessment Planning	12
5.0 ASSESSMENT PERFORMANCE	15
6.0 ASSESSMENT REPORTING	17
7.0 ASSESSMENT RESPONSE	19
8.0 ASSESSMENT FOLLOW-UP	20
9.0 ASSESSMENT CLOSURE AND FILING	20
REFERENCES 21	
Attachment 1 – NWP QA Internal Assessment Priority Determination Tables	22
Attachment 2 – Example of NWP QA Internal Assessment Subject Master Table	24
Attachment 3 – Audit Plan Guidance	25
Attachment 4 – Example of NWP Quality Assurance Assessment Checklist	26
Attachment 5 – Audit Report Guidance	27
Attachment 6 – Example of Independent Assessment Record File Completion Checklist	30
Attachment 7 – Example of Surveillance Report	31
Attachment 8 – Example of NWP QA Independent Assessment Log	32
Attachment 9 – Technical Specialist/Auditor Participation Indoctrination for Quality Assurance Audits Example	33

**Quality Assurance Independent Assessment Program
WP 13-QA.03, Rev. 23**

CHANGE HISTORY SUMMARY

REVISION NUMBER	DATE ISSUED	DESCRIPTION OF CHANGES
18	06/20/11	Added allowance for the Assurance Programs manager to extend the time limit for issuance of an audit report. (6.0)
19	02/28/12	Added discussion of effectiveness reviews (Introduction). Added clarification for developing criteria for (4.3) and performing (5.0) effectiveness reviews. Deleted reference to EFCOG Contractor Guide For Performance of Effectiveness Reviews (4.3, 5.0).
20	01/25/13	<ul style="list-style-type: none"> • Deleted requirements to enter external assessment findings in CTS throughout the document. • Updated organization names in accordance with MD 1.1.
21	03/04/13	<ul style="list-style-type: none"> • Removed from section 2.0 last bullet of lead assessor responsibilities and last bullet of surveillor responsibilities. • Added to sections 5.0 and 6.0 provisions to document findings corrected during assessment on the WIPP Form in accordance with • WP 04-IM1000 (Corrective action for CBFO CAR 12-020). • Deleted attachment 9, and added reference to WP 09-CN3025 in section 4.3. • Deleted Attachment 10, Concerns Form and its mention from section 5.0.

**Quality Assurance Independent Assessment Program
WP 13-QA.03, Rev. 23**

22	05/22/13	<ul style="list-style-type: none"> • Added statement to Introduction that commercial grade surveys are performed in accordance with this procedure and WP 09-CN3040, <i>Commercial Grade Item Dedication</i>. • Added bullets in section 2.0 to delegate the responsibility for identifying the need for technical assistance when performing assessments to the lead assessor and surveillor. • Reworded lead auditor/surveillor actions to be consistent with QAPD language in section 4.3. • Added additional methods for performing effectiveness reviews in section 5.0. • Deleted requirement in section 5.0 to notify CBFO of deficiencies in DOE requirements (Original requirement was deleted in DOE O 226.1B). • Deleted note in section 6.0 about issuing WIPP Forms for assessment findings (this information is discussed elsewhere). • Changed P-A Coordinator to Compliance Coordinator throughout. • Added discussion item "Potential hazards" to attachment 10.
23	05/19/14	<ul style="list-style-type: none"> • Changed "04-IM1000" to "15-GM1002" throughout. • Updated references table. • Revised Introduction section 1.0 concerning Record Inventory and Disposition Schedules. • Deleted in section 2.0, third bullet, approval of the assessment schedules. • Revised bullet in subsection 4.1 to be consistent with the scope and frequency of audits performed in accordance with the contractor assurance system. • Modified in subsection 4.1 the last bullet. • Deleted in subsection 4.2, bullets three, five and seven. • Modified subsection 4.3 for clarity. • Added in section 6.0, "internal" in bullet four for clarity. • Added in section 8.0 "will be tracked in commitment tracking system (CTS)."

Quality Assurance Independent Assessment Program
WP 13-QA.03, Rev. 23

23 (cont.)		<ul style="list-style-type: none">• Removed Attachment 3, Example of QA Fiscal Year External and Internal Audit Schedules.• Added in attachment 5, bullet "Initiate WIPP Form for CDA."• Removed in attachment 7, "CTS Coordinator."
------------	--	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

**Quality Assurance Independent Assessment Program
WP 13-QA.03, Rev. 23**

ABBREVIATIONS and ACRONYMS

ALARA	as low as reasonably achievable
CAM	continuous air monitor
CAQ	condition adverse to quality
CBFO	Carlsbad Field Office
CDA	corrected during assessment
CFR	Code of Federal Regulations
CH	contact-handled
CMS	Central Monitoring System
CTS	commitment tracking system
DNFSB	Defense Nuclear Facilities Safety Board
DOE	U.S. Department of Energy
HEPA	high-efficiency particulate air (filter)
HVAC	Heating, Ventilation, and Air Conditioning
ISM	Integrated Safety Management
NRC	U.S. Nuclear Regulatory Commission
NWP	Nuclear Waste Partnership LLC
P-A	Price-Anderson
PPE	personal protective equipment
QA	Quality Assurance
QAPD	Quality Assurance Program Description
QSL	Qualified Suppliers List
RH	remote-handled
SDD	System Design Description
VSS	Vital Safety System
WHB	Waste Handling Building
WIPP	Waste Isolation Pilot Plant

1.0 INTRODUCTION¹

The purpose of this document is to define and prescribe quality assurance (QA) methods and techniques used to identify, schedule, plan, perform, report, and close independent assessments, and to identify the resulting records.

This document applies to Nuclear Waste Partnership LLC (NWP) QA personnel qualified to lead and/or perform independent assessments. It also applies to cognizant managers of organizations being assessed.

Independent assessments may be performed as audits or surveillances. Audits are generally larger, more formal assessments of quality program elements or supplier programs. Surveillances are generally smaller assessments of specific activities, but may also be expanded and performed on quality program elements. Where the term "assessment" is used in this document, it applies to both audits and surveillances. Where actions apply only to an audit or surveillance, it will be so stated.

Commercial grade surveys are performed in accordance with this procedure and WP 09-CN3040, *Commercial Grade Item Dedication*.

Effectiveness reviews are conducted as surveillances to verify the effectiveness of corrective actions implemented to prevent the recurrence of significant issues, problems, or events.

Assessments may contain elements of inspections, testing, monitoring work in progress, and checking to support the reviews that comprise assessment activities.

Assessments evaluate the adequacy of program documents and implementation, including effectiveness of established programs, and processes for compliance with WP 13-1, *Nuclear Waste Partnership LLC Quality Assurance Program Description* (NWP QAPD), other QA program documents, and purchase order requirements, as applicable. Assessments focus on improving items, services, and processes by emphasizing the achievement of quality by line organizations. Regularly scheduled program assessments may be supplemented by or integrated with additional technical assessments (e.g., surveillances and limited scope audits).

Assessments are performed using reviews, interviews, observation and monitoring, and checks. Actual and/or potential deficiencies are noted. Supplier assessments verify conformance to applicable purchase orders and the QA requirements imposed by contract, or evaluate potential for providing products or services in compliance with NWP QA requirements. Scheduling is based on frequency required by regulation, ongoing project activities (e.g., previous audit results, adverse trends, or requests from other line organizations), and capabilities. Internal assessment findings and associated corrective actions are entered and tracked in the Issues Management (WIPP Form) System in accordance with WP 15-GM1002, *Issues Management Processing of WIPP Forms*.

Quality Assurance Independent Assessment Program
WP 13-QA.03, Rev. 23

Implementation of the program generates the following record(s), as applicable. Any records generated are handled in accordance with departmental Records Inventory and Disposition Schedules.

- NWP QA Independent Assessment Subject Master Table
- Audit Plan
- Assessment Checklist
- Audit Report
- Audit follow-up documentation
- Surveillance Report
- Surveillance follow-up documentation
- Independent Assessment Record File Completion Checklist
- Technical Specialist/Auditor Participation Indoctrination for Quality Assurance Audits
- Independent Assessment Log (Attachment 8)

2.0 RESPONSIBILITIES

The Assurance Programs manager is responsible for:

- Implementation of this document.
- Ensuring that assessment personnel have sufficient authority and organizational freedom to carry out their assigned responsibilities.
- Qualification of lead auditors and QA Surveillors (surveillors) in accordance with WP 13-QA.04, *Quality Assurance Department Administrative Program*.
- Assignment of assessment team leaders.
- Concurrence with assessment team selection.
- Assignment of surveillors.

The lead assessor is responsible for:

- Selecting the assessment team.
- Identifying the need for technical assistance when performing assessments.
- Approving assessment checklists.
- Organizing and directing the assessment.
- Reporting the assessment results.

The surveillor is responsible for:

- Performing surveillances.
- Identifying the need for technical assistance when performing assessments.

Quality Assurance Independent Assessment Program
WP 13-QA.03, Rev. 23

- Organizing and directing the surveillance.
- Reporting the surveillance results.

3.0 DEFINITIONS

Corrected During the Assessment (CDA) – An isolated condition adverse to quality (CAQ) requiring only remedial action to correct and for which resolution can be verified through review of objective evidence prior to the exit meeting.

Finding – A condition, applicable to the program or process being audited, that deviates from specified requirements defined by codes, standards, or other established specifications (a clear violation of a clear requirement).

Observation – A condition that, if left unattended, could become a deviation from established acceptance criteria; or a suggestion that, if enacted, could strengthen the existing program.

4.0 PREPARATION FOR ASSESSMENTS

4.1 QA Independent Assessment Identification

Waste Isolation Pilot Plant (WIPP) program elements or activities requiring independent assessment are found in:

- WP 13-1, Nuclear Waste Partnership LLC Quality Assurance Program Description
- DOE/CBFO 94-1012, U.S. Department of Energy Carlsbad Field Office Quality Assurance Program Document
- Hazardous Waste Facility Permit NM4890139088-TSDF

Additional programs, processes, or activities important to compliance application, nuclear safety, waste characterization, or the isolation of waste within the disposal system require independent assessments to verify adequate and effective performance. These programs are found in:

- Defense Nuclear Facilities Safety Board (DNFSB) Recommendation 2000-2, Configuration Management Vital Safety Systems
- DOE/WIPP-04-3310, WIPP Environmental Policy Statement
- DOE/WIPP-07-3372, Waste Isolation Pilot Plant Documented Safety Analysis
- DOE/WIPP-07-3373, Waste Isolation Pilot Plant Technical Safety Requirements
- EFCOG Contractor Guide For Performance of Effectiveness Reviews
- NWP procedures that prescribe assessments

Quality Assurance Independent Assessment Program
WP 13-QA.03, Rev. 23

Activities which affect the following require independent assessments, in accordance with the contractor assurance system established by U.S. Department of Energy (DOE) Order 226.1B, Implementation of Department of Energy Oversight Policy:

- Environment, safety, and health (e.g., protection of the environment, workers, and the public from damage or injury)
- Safeguards and security
- Emergency management
- Cyber security

Independent assessments performed in accordance with the contractor assurance system include evaluations of compliance with the following, as applicable:

- Laws
- Regulations
- National standards
- DOE directives
- DOE-approved plans and program documents (e.g., authorization basis documents and QA program)
- Site-specific procedures/manuals
- Criteria review and approach documents
- Contractual performance objectives, and other contractually mandated requirements

The scope and frequency of audits performed in accordance with the contractor assurance system must ensure that:

- Assessments required by applicable DOE directives, including environment, safety, and health, safeguards and security, emergency management, and cyber security, are being performed;
- The effectiveness of safety management programs, including programs that are credited in the safety basis, is being assessed adequately;
- Deficiencies are being self-identified; and
- Effective, corrective actions are being taken.

Quality Assurance Independent Assessment Program
WP 13-QA.03, Rev. 23

Supplier audits are based on requests for new suppliers to be added to the NWP Qualified Suppliers List (QSL); those suppliers currently on the QSL which are due for reevaluation, or have their authorized scope changed; and suppliers providing products or services under Title 10 *Code of Federal Regulations* (CFR) Part 71, that require a facility audit every three years. These requests and reevaluations are processed in accordance with WP 13-QA3012, *Supplier Evaluation/Qualification*.

The Assurance Programs manager or assigned cognizant individual will:

- Review WIPP requirements documents and identify needs for independent assessments based on both written requirements for independent assessments and other programs or processes that affect safety, storage of waste, or the environment, the importance of which necessitates assurance of compliance.
- Upon notification from a QA procurement reviewer or a NWP Contracting Officer that a project is scheduled to begin or is ongoing, evaluate the need for initial and follow-on independent assessments based on this section 4.0.
- Review the potential assessment to be added using the criteria in the Assessment Priority Determination Tables (provided in attachment 1). Document a decision for either an audit or a surveillance on the NWP QA Independent Assessment Subject Master Table (example provided in attachment 2).
- Determine a frequency at which the assessment should be performed. If established by the requirement, that frequency is to be used. If not established by requirement, determine an adequate frequency based on relative risk, hazards, and complexity of the processes and activities to be evaluated. Also consider the scope and coverage of previous oversight activities, and historical performance. Document the frequency on the NWP QA Independent Assessment Subject Master Table.

4.2 QA Independent Assessment Scheduling

Assessments will be scheduled to begin as early in the life of a project or activity as practicable, and will continue at intervals consistent with the schedule for accomplishing the work.

The Assurance Programs manager or assigned cognizant individual will:

- Evaluate the timing of the first, or next, occurrence for the assessment to be scheduled against all current or planned assessments. Consider resources, date required, time available, known regulatory oversight preparedness needs, associated historical issues, and client expectations, then schedule the assessment to best accommodate the need.
- Document internal and external (supplier) audits on the NWP QA Fiscal Year Electronic Audit Schedule. Suppliers of parts and materials, and services regulated by 10 CFR 71, Subpart H, will require the performance of a site audit on a triennial basis. (Reg. Guide 7.10, section 18.2)
- Develop additional informal schedule tools to track assessments, as necessary.

Quality Assurance Independent Assessment Program
WP 13-QA.03, Rev. 23

- Revise or update QA assessment schedules, as applicable, to reflect current needs.
- Make schedule(s) available to CBFO via the NWP QA webpage link.

4.3 QA Independent Assessment Planning

Assessments include audits and surveillances. Direction regarding assessments applies to both audits and surveillances. The term "assessor" denotes the person performing either the audit or surveillance, as appropriate. Any direction specific to either audits or surveillances is indicated where applicable.

The Assurance Programs manager or delegate will:

- Maintain the Independent Assessment Log. The log (see example in attachment 9) will be used to issue assessment numbers, and collect certain information regarding the assessments.
- Assign a qualified lead auditor to lead/perform audits. Determine if an audit team is necessary due to size or complexity of the scope.
- Assign a qualified surveillor or qualified lead auditor to perform surveillances.

The lead auditor/surveillor will:

- Obtain from the assessment coordinator an audit or surveillance number that denotes the type of assessment ("I" or "E" for internal or external audit, or "S" for surveillance, the fiscal year, and a sequential number beginning with 01 (e.g., I06-01, E06-01, S06-01).
- Contact the cognizant individual for internal audits/surveillances or the supplier for external audits/surveillances to determine any safety/security issues and precautions of which the team should be aware. This includes Personal Protective Equipment (PPE), badging, logistics information, etc. Document the safety/security issues and precautions in the audit plan.
- Select an assessment team, if a team is needed, based on the scope, complexity, or special nature of the work being assessed, technical qualifications, knowledge of the items and activities being assessed, availability, experience, and the prospective assessor's ability to provide an objective contribution.
- Ensure the following, as applicable:
 - Personnel having direct responsibility for performing the activities being assessed shall not be involved in the selection of the team. Team members shall have the authority to carry out their assigned responsibilities and be independent from the items and/or processes being assessed. Assessors shall be authorized in accordance with WP 13-QA.04, and/or perform under the supervision of a lead auditor.
 - During assessments, Technical Specialists may be used when evaluating the adequacy of technical processes. The lead assessor will

Quality Assurance Independent Assessment Program
WP 13-QA.03, Rev. 23

determine when technical specialist support is needed and will document the determination in the body of the report. Technical Specialists will be indoctrinated by the lead assessor commensurate with the scope, complexity, or special nature of the work being assessed, and of the assessments process associated with their duties. The indoctrination will be documented using a format similar to that defined in attachment 9. Attachment 9 may also be used to indoctrinate other assessors from the assessment group, at the discretion of the lead assessor.

- External peers or subject matter experts may be used as necessary to support assessment activities.
- Ensure that the team members collectively have appropriate training and experience commensurate with the scope of the assessment.
- Indoctrinate the audit team to the audit process, as needed, and their associated tasks before the audit. Include a review of potential hazards and plan accordingly for proper PPE (personal protective equipment), ALARA (as low as reasonably achievable), and additional controls deemed necessary. Document the indoctrination using a format similar to that defined in attachment 9.
- Prepare the audit plan, for both internal audits and external supplier audits, using guidance in attachment 4, and obtain QA management approval. The audit plan will include purpose, scope (including the work to be assessed and related corrective actions since previous assessments), requirements, audit personnel, organizations to be notified, applicable documents, written procedures to be used, schedule, safety/security issues and precautions, and background. Background should include previous findings, Corrective Action Requests, and weaknesses noted within the intended scope. For external supplier assessments, obtain supplier history from the QSL file or Coordinator.
- Review, with team members, any plan generated, pertinent background information that includes previous audit or oversight results, applicable procedures, and applicable technical documents so that team members are familiar with the work being assessed.
- If the assessment is external, notify the affected organization or company management by correspondence of the scheduled assessment, identifying the scope of the assessment. The notification need not include the audit checklist.
- Determine, with QA management, when internal surveillances are to be formally announced prior to performance. In such cases, notify the organization to be surveilled by correspondence of the surveillance, its scope, and schedule.

Assessor(s) will:

- Refer to the NWP QA Independent Assessment Subject Master Table for identification of requirements documents from which assessment criteria should be developed.
- Develop the criteria to be used during the assessment based on approved requirements; will also consider the following when developing criteria:

Quality Assurance Independent Assessment Program
WP 13-QA.03, Rev. 23

- For internal assessments, include criteria, as applicable, to assess application of Integrated Safety Management (ISM) in accordance with Management Policy MP 1.28, *Integrated Safety Management*, and WP 15-GM.03, *Integrated Safety Management System Description*. The Safety Management Responsibilities section of the latter document provides a source from which criteria can be generated. For internal assessments, the intention is to review the ISM controls in evidence or exhibited in the activity being assessed. For external assessments, ISM controls may be considered regarding the hazards that the assessor could encounter (e.g., anticipated hazards mitigated by adequate PPE).
- Although Graded Approach is assessed separately, consider possible criteria in accordance with WP 09-CN3005, *Graded Approach to Application of QA Controls*.
- Consider Conduct of Operations criteria applicable to the activity being assessed.
- Consider environmental controls or environmental response to unusual occurrences applicable to the activity being assessed.
- Consider software controls applicable to the activity being assessed.
- When assessing a WIPP Vital Safety System (VSS), develop criteria from the following:
 - Applicable portion of WP 09-CN3025, Annual System Health/Walkdown/Requalification, Attachment 1, Assessment Boundary for Vital Safety System Definitions
 - General for VSS assessments - Timely closure of modifications, Cognizant Engineer walkdowns, periodic maintenance performed as required in System Design Descriptions (SDDs), maintenance performed in accordance with manufacturer recommendations, combustible materials in the disposal circuit in the underground, software QA
- For an audit, develop the audit checklist(s) under the direction of the lead auditor using the guidance in attachment 5. Checklist line items are generally written as directions to verify conformance of the activity being evaluated with established requirements, or as questions whether or not the activity being evaluated conforms with the requirement.
- For a surveillance, the criteria may be identified briefly on the Surveillance Report or on a detailed checklist to be filed with the assessment. Examples of brief criteria include, "observe actions based on steps XX through and including YY," or "observe waste hoist lifting activity for adherence to Procedure XXX, Revision Y, Section ZZ," or "review 15 WIPP Forms for adequacy, completeness, and implementation of corrective actions," etc. Criteria typically are found in QA manuals and program plans, procedures, previous assessments and corrective action documents, and contract requirements.

Quality Assurance Independent Assessment Program
WP 13-QA.03, Rev. 23

- For Effectiveness Reviews of completed corrective actions for 'significant' WIPP Forms, P-A externally-reportable issues, etc., develop criteria considering the following:
 - Effectiveness reviews are performed to verify the effectiveness of corrective actions that have been implemented to prevent the recurrence of significant issues.
 - Effectiveness is measured by a significant change in one or more of these four measures:
 1. The probability of the original event recurring
 2. The frequency of the problem recurring
 3. Reduction in the magnitude or severity of the problem
 4. Elimination of the original problem

5.0 ASSESSMENT PERFORMANCE

The lead auditor/surveillor will:

- For audits and external surveillances (optional for internal surveillances), conduct an entrance meeting with the assessment team and appropriate personnel representing the assessed organization(s). The entrance meeting is intended to introduce the assessors, explain the purpose, scope, and schedule for the assessment, and establish interfaces and contacts with the organization being assessed.
- For Effectiveness Reviews of completed corrective actions for 'significant' WIPP Forms, Price-Anderson (P-A) externally reportable issues, etc., perform the assessment using one or more of the following methods. The method selected should be appropriate for the specific corrective/preventive actions. The direct observation method is the method of preference, but other methods should also be applied, as necessary.
 - Observe the work or performance of an evolution.
 - Conduct facility inspections or activity monitoring.
 - Utilize past performance indicators to track any ongoing recurrences.
 - Review databases or similar problems.
 - Run a test to challenge the system or process (if applicable).
 - Run a mock item through the process, or complete a performance test (if applicable).
 - Perform a walkthrough of the work, process, or evolution.

Quality Assurance Independent Assessment Program
WP 13-QA.03, Rev. 23

- Interview impacted managers and workers on their understanding of, and involvement with, the implemented corrective actions.
- Review a documented, previously completed equivalent evaluation of the original problem prior to initiating the effectiveness review.

The assessment team will:

- Evaluate the applicable quality program element(s) by examining objective evidence, observing activities in progress, examining items (including components, specimens, and machinery, etc.), and/or interviewing personnel responsible for the activity. Include technical evaluations of the applicable procedures, instructions, activities, and items, as appropriate. Objective evidence related to the planning and technical aspects of the work performance is to be examined to the depth necessary to determine if these elements are being implemented effectively.
- Review previous corrective actions, as applicable, to evaluate implementation and effectiveness when recurring problems are found.
- Observe, to the extent possible, actual operations to verify conformance to requirements.
- Record the results of the evaluations performed on the assessment checklist or surveillance report, as applicable.
- Record, on the assessment checklist or surveillance report, as applicable, objective evidence examined, including all documents reviewed, with sufficient detail so that any conditions or practices may be noted in the report with adequate detail. Include, as applicable, document number, title, and revision.
- Record, on the assessment checklist or surveillance report, as applicable, the results of observations of processes or items, including the quantity of items examined to indicate the size or breadth of the examination. Identify the items, where possible.
- Record, on the assessment checklist or surveillance report, as applicable, the names of personnel interviewed.
- Inform the lead auditor/surveillor of progress and/or problems with assigned tasks periodically during the assessment.
- Notify immediately the lead auditor/surveillor if conditions are identified during an internal audit or surveillance that qualify as an event or potentially reportable occurrence under the requirements of 10 CFR Part 21, 10 CFR Part 71, WP 12-ES3918, Reporting Occurrences in Accordance with DOE Order 232.2, etc.
- Notify immediately the lead auditor/surveillor if conditions are identified that are believed to be unsafe. If an internal assessment condition requires immediate work stoppage, proceed as directed in MP 1.2, *Stop-Work Policy*. During external assessments, notify the supplier management, or their designated point-of-contact.

Quality Assurance Independent Assessment Program
WP 13-QA.03, Rev. 23

- Acknowledge and track any CDAs. Verify that the actions completed correct the condition. Document CDAs on a WIPP Form, in accordance with WP 15-GM1002, for trending.

The lead auditor/surveillor will:

- Notify QA management and the management of the assessed organization as soon as practicable if conditions are discovered that could have a significant adverse impact on prior work or affect work in progress, or if conditions require prompt attention. If conditions require immediate attention as defined in WP 12-ES3918 or MP 1.2, perform action as directed by the appropriate document.
- Notify the management of the assessed organization as soon as practicable of any issues identified, to assure accuracy, and allow opportunity for resolution during the assessment.
- Notify Packaging Manager of issues that affect nuclear packaging (TRUPACTs, HalfPACTs, etc.) or are otherwise potentially reportable to the U.S. Nuclear Regulatory Commission (NRC), to allow them to screen for reportability under 10 CFR Part 21 or 10 CFR Part 71, etc.
- For audits and external surveillances, conduct an exit meeting with appropriate personnel representing the assessed organization(s). The exit meeting is intended to provide a general overview of the evaluation of the program element and any issues requiring attention.

6.0 ASSESSMENT REPORTING

The reporting of the assessment, if performed as an audit or external surveillance, will follow the guidance provided in attachment 6; and, if performed as an internal surveillance, will use the example provided in attachment 8.

Assessments that involve sensitive (e.g., permit- or personnel-related) information are to be coordinated through the NWP Legal Counsel. The lead auditor/surveillor and QA management will determine the necessary reviewers (i.e., NWP Legal Counsel, etc.) for proper processing of such assessment information.

The lead auditor/surveillor/manager will:

- Prepare the assessment report with the assistance, as necessary, of the assessment team, and sign the report.
- Ensure that the assessment report includes the following, as appropriate:
 - Assessment purpose and scope (surveillances to include criteria used)
 - Identification of assessors
 - Identification of personnel contacted
 - Identification of documents reviewed, including revision indicator

Quality Assurance Independent Assessment Program
WP 13-QA.03, Rev. 23

- Summary statement(s) indicating program (or program element) adequacy, implementation, effectiveness (applicable to scope), and a brief statement of ISM evaluations performed
- Commendable practices or situations (if any are identified)
- Findings (conditions adverse to quality, if any are identified) – Enter internal (NWP) conditions adverse to quality into the Issues Management System using the WIPP form in accordance with WP 15-GM1002. Identify findings in the report as directed in attachments 6 and 8. Concisely describe in the report (and on the WIPP Form for internal findings) the specific condition that deviates from the requirements, with sufficient detail to enable remedial actions to be taken by the audited organization, and subsequent closure by QA. Clearly quote or state the requirement from which the deviation was noted. Group findings of a common nature together whenever possible so that systematic breakdowns can be identified. Evaluate findings based on the relative importance to indicate the degree of impact on compliance application, waste characterization, repository performance assessment, waste isolation, waste transportation, nuclear safety, environmental protection, or management and operation of the WIPP facility.
- Observations (if any are identified) - Concisely state either the condition observed that, if left unaddressed, could deteriorate into a finding, or the suggestion that could strengthen the existing program or process.
- Corrected During Assessment (CDA) - Concisely describe the CAQ found, the requirement from which the condition deviated, and the action(s) taken to resolve the condition. Document CDAs on a WIPP Form, in accordance with WP 15-GM1002, for trending.
- Include the following statement in external supplier audit reports:

(Name of Company) will be (select "retained on," "added to," "added to pending successful resolution of finding," or "removed from") the NWP QSL for (state the scope or limitations of products or services authorized).
- Include the following statement in audit reports for suppliers currently on the NWP QSL:

If the agreements and commitments contained herein are deemed by the supplier to involve a change in the order concerning work scope, price, or schedule, it is agreed that such work will not commence or continue until authorized by a written change notice. It is understood that if the supplier commences such work without a written change notice, it is at the supplier's risk.

Quality Assurance Independent Assessment Program
WP 13-QA.03, Rev. 23

- Using cover correspondence, issue the assessment report to all affected entities within 45 calendar days of conclusion of the audit. The 45 calendar day time limit may be extended at the discretion of the Assurance Programs manager.
 - Cognizant department manager (all reports)
 - Compliance Coordinator (all reports)
 - CTS Coordinator (external reports containing findings)
 - Facility point-of-contact (external reports)
 - QSL Coordinator (external qualification or requalification audits)
 - Packaging Manager (reports affecting packaging)
 - Assessment Coordinator (all reports)
 - Lessons Learned Coordinator (reports containing findings determined by the lead auditor/surveillor/management to be potential Lessons Learned issues)
 - QA assessment file for this assessment
 - Others as designated by QA management

Because internal findings are transferred to WIPP Forms, internal reports are considered closed at the time of issue. For external audit reports, include direction to the supplier for responding to any findings.

- Document internal CDAs on a WIPP Form, in accordance with WP 15-GM1002, for trending.
- For external supplier qualification audits, complete the Supplier Evaluation/QSL Update Request Form in accordance with WP 13-QA3012, and forward to the QSL Coordinator.

It is recommended to electronically file a copy of the completed checklist and the report in the applicable assessment folder within "Assessment Reports" in the shared folder WQNRA on the Torreon server.

7.0 ASSESSMENT RESPONSE

The cognizant manager of the assessed WIPP organization will review the assessment (audit or surveillance) results assigned to their organization on the WIPP Form, and respond using the Issues Management (WIPP Form) process in accordance with WP 15-GM1002.

Quality Assurance Independent Assessment Program
WP 13-QA.03, Rev. 23

The facility contact (for external assessments) is expected to respond as directed in the issuing cover letter and report. Any request for extension of corrective action due date shall be reviewed by the Assurance Programs Manager or designee.

8.0 ASSESSMENT FOLLOW-UP

In accordance with WP 15-GM1002, the WIPP Form screening committee will assign the lead auditor/surveillor/manager as a technical reviewer of actions/corrective action plans developed in response to a WIPP Form issued as the result of an internal audit/surveillance finding. As a technical reviewer, the lead auditor/surveillor/manager will be responsible for determining the long-term effectiveness of the corrective actions, and will be expected to sign the Corrective Action Plan, so indicating, in accordance with WP 15-GM1002. Issues that cannot be resolved will be referred to management.

For external supplier audit or surveillance findings and the resulting supplier's committed actions will be tracked in commitment tracking system (CTS); the lead auditor/surveillor/manager will review the supplier's actions, and report completion based on the supplier's approved commitment(s).

9.0 ASSESSMENT CLOSURE AND FILING

The lead auditor/surveillor/manager will:

- For external supplier audits or surveillances with findings, verify that the corrective actions were completed as committed, issue a closure letter to the supplier and any other affected organizations, and ensure that copies are distributed to the QSL Coordinator (if applicable) and the Compliance Coordinator.
- Review, using the file checklist (attachment 7), the assessment file for completeness: purge working documents, sign the checklist, notify the assessment coordinator, and forward the complete file to the QA file. The assessment file is to include:
 - Audit Plan (for audits)
 - Completed Assessment Checklist (required for audits, or when used for surveillances)
 - Completed Assessment Report (including identification of documents reviewed and personnel contacted)
 - Assessment response (for external assessments)
 - Corrective Action completion, follow-up, and verification (for external assessments)
 - Other documentation determined to be necessary to support the assessment (closure correspondence, etc.)

**Quality Assurance Independent Assessment Program
WP 13-QA.03, Rev. 23**

REFERENCES	
DOCUMENT NUMBER AND TITLE	KEY STEP
10 CFR Part 21, "Reporting of Defects and Noncompliance"	
10 CFR Part 71, "Packaging and Transportation of Radioactive Material"	
Reg. Guide 7.10, <i>Establishing Quality Assurance Programs for Packaging Used in Transport of Radioactive Material (NRC)</i>	
DNFSB Recommendation 2000-2, <i>Configuration Management Vital Safety Systems</i>	
DOE O 226.1B, <i>Implementation of Department of Energy Oversight Policy</i>	
Hazardous Waste Facility Permit, Waste Isolation Pilot Plant, Permit #NM4890139088 TSDf, Issued by New Mexico Environment Department	
DOE/CBFO 94-1012, <i>Carlsbad Field Office Quality Assurance Program Document</i>	
DOE/WIPP 04-3310, <i>WIPP Environmental Policy Statement</i>	
DOE/WIPP-07-3372, <i>Waste Isolation Pilot Plant Documented Safety Analysis</i>	
DOE/WIPP-07-3373, <i>Waste Isolation Pilot Plant Technical Safety Requirements</i>	
EFCOG Contractor Guide for Performance of Effectiveness Reviews	
MP 1.2, <i>Stop-Work Policy</i>	
MP 1.28, <i>Integrated Safety Management</i>	
WP 09-CN3005, <i>Graded Approach to Application of QA Controls</i>	
WP 09-CN3025, <i>Annual System Health/Walkdown/Requalification</i>	
WP 09-CN3040, <i>Commercial Grade Item Dedication</i>	
WP 12-ES3918, <i>Reporting Occurrences in Accordance with DOE Order 232.2</i>	
WP 13-1, <i>Nuclear Waste Partnership LLC Quality Assurance Program Description</i>	1
WP 13-QA.04, <i>Quality Assurance Department Administrative Program</i>	
WP 13-QA3012, <i>Supplier Evaluation/Qualification</i>	
WP 15-GM.03, <i>Integrated Safety Management System Description</i>	
WP 15-GM1002, <i>Issues Management Processing of WIPP Forms</i>	

Quality Assurance Independent Assessment Program
WP 13-QA.03, Rev. 23

Attachment 1 – NWP QA Internal Assessment Priority Determination Tables

Determine whether the assessment will be performed as an audit or surveillance using the tables below:

- Review the assessment to be performed against the criteria in the Risk and Hazard Table to determine a numeric value.
- Review the assessment also against the criteria in the Importance and Complexity Table to determine a numeric value.
- Multiply the two numeric values.
- Use the Assessment Priority Table and the number derived from the previous bullet to determine the priority of the assessment to be performed and schedule the type of assessment indicated.

Risk and Hazard Table	
Description	Probability and Consequence Level
If not performed, improbable undetected impact on environment safety, health, safeguards and security, emergency management, cyber security, or QA	1
If not performed, possible minor undetected impact on environment, safety, health, safeguards, and security, emergency management, cyber security, or QA	2
If not performed, possible major undetected impact on environment, safety, health, safeguards, and security, emergency management, cyber security, or unknown status of QA program, or possible continuation of negative trend or repetitive nonconformance	3

Importance and Complexity Table	
Description	Importance and Complexity Level
Necessary to verify actions in document other than a requirement-source or implementing procedure	1
Necessary to verify an action required by an implementing procedure	2
Necessary to complete an assessment required by an implementing procedure	3
Necessary to complete an assessment required by an implementing procedure, and complex in nature	4
Necessary to complete a specific program assessment requirement, or commitment (both non-complex and complex in nature)	4

Quality Assurance Independent Assessment Program
WP 13-QA.03, Rev. 23

Attachment 1 – NWP QA Internal Assessment Priority Determination Tables

Assessment Priority Table		
Derived Numeric Value	Priority	Action
1-4	Low	Schedule Surveillance
5-8	Medium	Schedule Surveillance or Audit
9-12	High	Schedule Audit

**Quality Assurance Independent Assessment Program
WP 13-QA.03, Rev. 23**

Attachment 2 –Example of NWP QA Internal Assessment Subject Master Table

NWP QA INDEPENDENT ASSESSMENT SUBJECT MASTER TABLE							
Area of Interest	Source/Reference	Risk/Hazard	Complexity	Priority	Audit	Surv	Frequency
Management System NWP Organization Facility Ops Chain of Command QA Organization	Source WP 13-1, R.27, §1.1 Reference DSA/TSR 10 CFR 71 Subpart H	3	4	12	X		Biennial (frequency not specified in 830.122, NQA-1, WP 13-1, R.27, or WP 13-QA.03)
Personnel Qualification and Training Facility Staff Qualifications Training	Source WP 13-1, R.27, §1.2 Reference DSA/TSR 10 CFR 71 Subpart H DSA/TSR	3	4	12	X		Biennial
Qualified Operators							

Quality Assurance Independent Assessment Program
WP 13-QA.03, Rev. 23

Attachment 3 – Audit Plan Guidance

NUCLEAR WASTE PARTNERSHIP LLC
QUALITY ASSURANCE AUDIT PLAN
Title of audit (subject)

Audit number

Audited organization(s) (and location if supplier audit)

1. Purpose and Scope of the audit
2. Applicable Requirements Documents
WP 13-1, *NWP Quality Assurance Program Description*
(Any others, including regulatory documents containing requirements)
3. Procedure(s) to be used to perform the audit
WP 13-QA.03, *Quality Assurance Independent Assessment Program*
4. Hazards, Safety/security issues
Precautions
Badging, logistics information
PPE (if any)
5. Audit Team
Lead Auditor
Team Auditors (if any)
Technical Expertise (if any)
Anticipated Observers (if any)
6. Schedule
Pre-Audit Meeting
Audit Activities
Post-Audit Meeting
7. Background
Previously reported findings (if any)
Previous corrective action issues (if any)
Previously reported weaknesses (if any)
8. Signatures:

Prepared by: _____
(Printed Name)
Lead Auditor

Approved by: _____
(Printed Name)
Manager, Assurance Programs

**Quality Assurance Independent Assessment Program
WP 13-QA.03, Rev. 23**

Attachment 4 – Example of NWP Quality Assurance Assessment Checklist

(The following table is shown on first page only, followed by the second table as space allows.)

NWP Quality Assurance Assessment Checklist	
Organization Assessed: _____	Assessment Number: _____
Requirements Documents: _____	Dates of Assessment: _____
Assessor(s): _____	Key: S=Satis., U=Unsat., N=N/A

(The top row of the following table is a header to be shown on each page to which this table expands with usage.)

Item	[Type in Assessment # here] Assessment Item	Reference Document(s)	Key	Assessor Comments
	(Add rows as needed)			

(The following signature line is shown on the last page only, following the end of the above table.)

Approved by: _____ Date: _____
 Lead Auditor/Surveillor (print name and sign)

Notes: Refer to the NWP QA Independent Assessment Subject Master Table for identification of requirements documents from which assessment criteria should be developed.
 Review any corrective actions committed as a result of the previous assessment; develop criteria to evaluate their effectiveness.
 Develop criteria that evaluate a broad range of the requirements with enough detail to be meaningful in verifying compliance and effectiveness.
 Develop criteria to evaluate effectiveness of Graded Approach and the ISM system.

Quality Assurance Independent Assessment Program
WP 13-QA.03, Rev. 23

Attachment 5 – Audit Report Guidance

Nuclear Waste Partnership LLC
Quality Assurance (select either **Internal** or **External**) **Audit Report**
[Descriptive, yet concise **title** - if external, provide company and address]
[**Audit Number**]

I. Executive Summary: Concise summary (generally one page or less), written in paragraph format including brief mention of organization audited (include location for external supplier) and audit date, abbreviated purpose and scope, results in general terms, conclusion of program adequacy (including ISM), any commendable situations noted, and any major issues requiring further action.

II. Audit Details

Purpose and Scope (more detailed than the Executive Summary)
Criteria used (identify or make reference to checklist, and specifically address ISM)
Audit Team
Inclusive dates of audit
Location(s) of audit
Conclusion(s) regarding compliance, effectiveness, and ISM evaluations performed. Include a statement addressing the number of findings, observations, and/or "CDAs." An acceptable method would be, "The assessment resulted in 2 Findings, 0 Observations, and 3 issues closed during the assessment."
Commendable practices or activities (if applicable)

[Include the following statement, as applicable, in assessment reports containing findings.]

Response to Findings (external supplier audits only) - When responding to audit findings, the following elements are required to be addressed:

- Cause of nonconformance
- Interim actions planned to correct the nonconformance
- Evaluation of the extent of the condition beyond that cited in the report
- Actions planned to prevent recurrence
- Schedule of implementation/completion

Findings (are to be numbered as [audit no.]-F-[sequential number beginning with 01], and internal findings are to also cross-reference to the WIPP Form Number. Example – "S04-027-F-01 issued as WF04-120")

- Condition noted
- Requirement not met

Observations (numbered as [assessment no.]-O-[sequential number beginning with 01])

- Condition (noted, or considered to be an improvement)

Quality Assurance Independent Assessment Program
WP 13-QA.03, Rev. 23

Attachment 5 – Audit Report Guidance

Attachment 1 Table of Personnel Contacted

- [A] Attended Audit Entrance Meeting
- [B] Contacted During the Audit
- [C] Attended Audit Exit Meeting

Personnel Contacted	A	B	C
(Added rows as needed)			

Attachment 2 Table of Documents Reviewed

Document Identification	Document Title or Description
(Add rows as needed)	

**Quality Assurance Independent Assessment Program
WP 13-QA.03, Rev. 23**

Attachment 6 – Example of Independent Assessment Record File Completion Checklist

INDEPENDENT ASSESSMENT RECORD FILE COMPLETION CHECKLIST	
Assessment No. _____	
	<u>Complete</u>
Audit Team/Technical Specialist Indoctrination	<input type="checkbox"/>
Assessment Plan (required for audit, optional for surveillance)	<input type="checkbox"/>
Assessment report	<input type="checkbox"/>
Assessment response (if external assessment contained findings)	<input type="checkbox"/>
Assessment Checklist (required for audit)	<input type="checkbox"/>
Closure letter (if external assessment contained findings)	<input type="checkbox"/>
Other	
_____	<input type="checkbox"/>
I have reviewed the above listed records and verified their completeness and legibility.	
_____	_____
Lead Auditor/Surveillor	Signature
	Date

**Quality Assurance Independent Assessment Program
WP 13-QA.03, Rev. 23**

Attachment 7 – Example of Surveillance Report

<i>Nuclear Waste Partnership LLC Quality Assurance (make this a header row)</i>	
Surveillance Report Number:	Date:
Subject	Organization(s) Surveilled
Scope	
Surveillor(s)	
Requirement References (include revision no.)	
Surveillance Criteria	<input type="checkbox"/> Checklist on file in QA
Personnel Contacted (* indicates persons to whom a copy of this report is to be distributed)	
Documents reviewed <input type="checkbox"/> See attachment	
Details/Results/Conclusions <input type="checkbox"/> WIPP Form(s) identified in Findings	
_____ [Print and Sign] Lead Auditor/Surveillor	_____ Date
_____ [Print and Sign] Manager, Assurance Programs	_____ Date
cc: Manager of assessed organization, WIPP Form Coordinator (if containing findings), Compliance Coordinator, Assessment Coordinator, Packaging Manager (if containing packaging issues) Page 1 of (total)	

Make the top row a header to appear on every page.
Insert pagination (page X of Y) at the bottom center

**Quality Assurance Independent Assessment Program
WP 13-QA.03, Rev. 23**

Attachment 8 – Example of NWP QA Independent Assessment Log

**NWP QUALITY ASSURANCE
INDEPENDENT ASSESSMENT LOG**

Assessment Number	Subject/Manufacturer	Location	Date Performed	Lead Auditor/ Surveillor	Assessment Team	Results Findings/CDAs/ Observations	Status of External Findings
E05-06	Supplier X	Wichita, KS	5/10/2005	(Name)	(Names)	8 Findings 1 CDA 2 Obs.	All findings closed 5/10/05, QA:05-00287

Quality Assurance Independent Assessment Program
WP 13-QA.03, Rev. 23

Attachment 9 – Technical Specialist/Auditor Participation Indoctrination for Quality Assurance Audits Example

**Technical Specialist/Auditor Participation Indoctrination
for Quality Assurance Audits
Audit XXX0XX
(Audit Title)**

In preparation for participation as a Technical specialist/Auditor, this documentation serves as a record that the below listed individual has been indoctrinated per the requirements of the NWP QAPD, and procedure WP 13-QA.03.

Items discussed:

- Applicable portion of the NWP QAPD
- Applicable section of WP 13-QA.03, which includes audit checklist preparation and completion, documentation required during the audit process, and the audit report format.
- Applicable requirements documentation associated with this audit.
- Expectations of an Auditor.
- Potential hazards. Plan accordingly for proper PPE, ALARA, and additional controls deemed necessary, i.e., badging, logistics, etc.

Experience Background:

(Enter short biography for each specialist [auditor as desired] detailing previous experience and qualifications.)

Technical Specialist/Auditor:

Print Name

Signature

Lead Auditor:

Print Name

Signature

WP 15-GM1002

Revision 2

Issues Management Processing of WIPP Forms

Management Control Procedure

EFFECTIVE DATE: 04/03/14

R.L. McQuinn
APPROVED FOR USE

TABLE OF CONTENTS

CHANGE HISTORY SUMMARY 3

INTRODUCTION ^{1,2} 4

REFERENCES..... 6

DEFINITIONS 7

PREREQUISITE ACTIONS..... 8

PERFORMANCE 9

1.0 WIPP FORM AVAILABILITY 9

2.0 WIPP FORM INITIATION 9

3.0 WIPP FORM SCREENING..... 10

4.0 RESOLUTION AND CORRECTIVE ACTION..... 16

5.0 WIPP FORM CLOSURE 17

Attachment 1 – Corrective Action Plan (CAP) Content..... 19

Attachment 2 – Determination and Trend Codes 21

Attachment 3 – Cause Codes 23

CHANGE HISTORY SUMMARY

REVISION NUMBER	DATE ISSUED	DESCRIPTION OF CHANGES
0	07/29/13	<ul style="list-style-type: none"> • This document replaces WP 04-IM1000.
1	09/30/13	<ul style="list-style-type: none"> • Removed all references to CCP-QP-029 from document. • Added to the Introduction: <ul style="list-style-type: none"> — Statement that CARs issued by CBFO will be processed in accordance with WP 13-QA3007. — Issues with equipment or material condition of structures or systems will not normally be processed using IMPS. — The WIPP Form Screening Committee Chairperson may screen WIPP Forms identifying issues that cannot use IMPS. • Added to the Note above step 2.1 that a subordinate WIPP Form may address issues identified multiple times. • Added the WIPP Form Screening Committee Chairperson to step 3.1. • Added the Note above step 4.1 on Cause Codes not needing to be assigned to a CAP that are identified as process improvements. • Added to step 2.0 of attachment 1 a statement on No cause-Process Improvement is entered for WIPP Forms identified as process improvement.
2	04/03/14	<ul style="list-style-type: none"> • Added Note above substep 3.3.10 regarding the IMPS. • Revised substep 3.3.10[B] for instructions if an issue is determined to be a SCAQ. • Added substep 3.3.10[C] regarding if an issue is NTS reportable. • Deleted substeps 4.1.2[B], 4.1.3, 4.1.4[B], 4.1.6, and 4.1.7 regarding instructions to obtain signatures. • Changed in Note above step 4.2, “CARs” to “WIPP Forms.” • Revised step 5.1.3 to correct the method of providing objective evidence for CAP closure. • Minor editorial changes throughout.

INTRODUCTION^{1,2}

This procedure prescribes the process for initiation, tracking, resolution, and closure of issues or process improvements identified on Waste Isolation Pilot Plant (WIPP) Forms.

WIPP Forms may be submitted for any issue and may address issues of both high and low significance, including safety issues, conditions adverse to quality (CAQs), and process improvements. CAQs may require reporting by the quality assurance (QA) program, Price-Anderson Amendments Act (PAAA), Worker Safety and Health Plan (10 *Code of Federal Regulations* [CFR] 851), or other reporting entities (e.g., U.S. Environmental Protection Agency, U.S. Department of Energy [DOE]). Issues identified through the External Oversight Activities per WIPP Procedure (WP) 13-QA3007, *External Oversight Activities*, will be processed through the Issues Management Processing System (IMPS) with the exception of Carlsbad Field Office (CBFO) Corrective Action Requests (CARs). CARs issued by CBFO will be processed in accordance with WP 13-QA3007. CAQs that are corrected during internal assessments (CDAs) (e.g., Management Assessments, Independent Assessments [audits or surveillances], Monitored Operational Evolutions, Accident Investigations, External Oversight issues) will be identified on WIPP Forms for trending purposes.

Draft reports received from external sources through the External Oversight Activities for factual accuracy will not be entered into the Issues Management Program until the final reports are received.

The WIPP Form does not take the place of the following:

- Notification of the Central Monitoring Room of the stop work process, when immediate safety issues occur
- Human Resources employee concerns process
- Grievances
- Action Requests (ARs) and Work Orders (WOs)
- Routine landlord issues process
- Routine communications or the open door policy
- Nonconformance Reports (NCRs)
- Engineering Change Orders (ECOs)

Issues with equipment or material condition of WIPP structures or systems will not normally be processed using IMPS. Equipment and material condition issues are typically addressed through WOs, ECOs, and NCRs.

Managers should foster a "no-fault" attitude and encourage their staff to report issues and suggest improvements. Prompt notification of issues allows management to prioritize and focus resources in a manner to best address the issues having the greatest potential for:

- Posing adverse risks to human health or the environment.
- Adversely impacting the quality, safety, and reliability of WIPP operations.
- Affecting the ability to meet quality requirements.
- Committee members are identified in accordance with Management Charter 1.7, *WIPP Form Screening Committee*, and will screen WIPP Form(s) to ensure that the issue is assigned to the appropriate manager(s) for resolution, that the proposed corrective actions appropriately address the issue, and that closure documentation provides objective evidence that the corrective actions have been completed.

The WIPP Form Screening Committee typically meets weekly or as deemed necessary by the WIPP Form Screening Committee Chairperson.

The WIPP Form Screening Committee Chairperson may screen WIPP Forms that identify issues that cannot be addressed using IMPS (Human Resource issues, equipment issues) and document the determination and disposition on the WIPP Forms. The WIPP Form Screening Committee Chairperson will report these actions to the WIPP Form Screening Committee.

Performance of this procedure generates the following record(s), as applicable. Any records generated are handled in accordance with departmental Records Inventory and Disposition Schedules.

- EA15GM1002-1-0, *WIPP Form*
- EA15GM1002-2-0, *WIPP Form Continuation Sheet*
- Supporting documentation

REFERENCES			
DOCUMENT NUMBER AND TITLE	BASELINE DOCUMENT	REFERENCED DOCUMENT	KEY STEP
10 CFR Part 21, "Reporting of Defects and Noncompliance"		✓	
10 CFR Part 71, "Packaging and Transportation of Radioactive Material"		✓	
10 CFR Part 851, "Worker Safety and Health Program"		✓	
DOE/WIPP-07-3372, <i>Waste Isolation Pilot Plant Documented Safety Analysis</i>	✓		
DOE/WIPP-07-3373, <i>Waste Isolation Pilot Plant Technical Safety Requirements</i>	✓		
Hazardous Waste Facility Permit, EPA Identification Number NM4890139088-TSDF		✓	
MC 1.7, <i>WIPP Form Screening Committee</i>		✓	
MP 1.2, <i>Stop-Work Policy</i>		✓	
WP 04-AD3027, <i>TSR Violation Response and Recovery</i>	✓	✓	
WP 10-2, <i>Maintenance Operations Instruction Manual</i>		✓	
WP 10-WC3011, <i>Work Control Process</i>		✓	
WP 12-ES3918, <i>Reporting Occurrences in Accordance with DOE Order 232.2</i>		✓	
WP 13-1, <i>Nuclear Waste Partnership LLC Quality Assurance Program Description</i>	✓		1
WP 13-QA.03, <i>Quality Assurance Independent Assessment Program</i>	✓		
WP 13-QA3004, <i>Nonconformance Report</i>		✓	
WP 13-QA3007, <i>External Oversight Activities</i>		✓	
WP 15-GM.02, <i>Worker Safety & Health Program Description</i>	✓		2
WP 15-GM1001, <i>Root Cause Analysis</i>		✓	
WP 15-MD3102, <i>Event Investigation</i>		✓	
WP 15-PA.02, <i>Causal Analysis Guidance</i>		✓	
WP 15-RA.01, <i>Nuclear Safety & Worker Safety and Health Compliance Program</i>		✓	
EA15GM1002-1-0, <i>WIPP Form</i>		✓	
EA15GM1002-2-0, <i>WIPP Form Continuation Sheet</i>		✓	

DEFINITIONS

Compensatory Actions – Those controls put in place to ensure the issue is controlled and does not recur while programmatic or procedural changes are being developed and implemented.

Condition(s) Adverse to Quality (CAQs) – Noncompliance with QA program requirements.

Corrected during the Assessment (CDA) – CAQs that are corrected during the course of an assessment and are documented on WIPP Forms for trending purposes.

Equipment malfunction/maintenance issues – Maintenance issues that are resolved in accordance with WP 10-2.

Extent of Condition – The extent to which an identified issue has the potential to impact other items or processes or has done so in the past (e.g., is of a repetitive nature). This will be determined by the assigned Responsible Manager.

Human Resources (HR) Issues – Issues that are related to potentially proprietary employee information. The HR issues are typically routed to the HR department for resolution through their program(s).

HWFP-noncompliant – Noncompliance with the Hazardous Waste Facility Permit (HWFP). If the issue requires immediate notification of regulatory entities it is a Significant Condition Adverse to Quality (SCAQ).

Impact – The significance or effect of the issue to the program or operation.

Issue – Generic term used to refer to any item documented on a WIPP Form. This includes, but is not limited to, a failure, defect, deviation, malfunction, deficiency, nonconformance of plant equipment, materials, procedures, personnel safety concerns or events which have or could have an effect on the safe, reliable, or efficient operation of the plant, or which involve a failure to be in compliance with requirements or management expectations. In addition, it may be a question, request for evaluation, suggestion for improvement, or management or department initiative.

Nonconformance – A deficiency in characteristic, documentation, or record which renders the quality of an item unacceptable or indeterminate. These issues are controlled by procedure WP 13-QA3004.

Potential SCAQ – Issues of a severity that would require additional review by QA Manager to determine if a SCAQ exists and/or Work Suspension is required.

Program Enhancement – Issues developed during the conduct of Management Assessments, opportunities for program enhancement submitted by plant staff.

Quality Assurance Assessment – Issues (CAQs) identified during the performance of a QA Audit/Surveillance.

Safety Issue – Issues relevant to the WIPP Safety Program.

Significant Condition Adverse to Quality (SCAQ) – A significant condition adverse to quality is one that:

- If uncorrected, could lead to a serious effect on safety/operability, the ability to isolate waste, TRU waste site certification, regulatory compliance demonstration, or effective implementation of the QA program; or
- Is noncompliant with the Compliance Recertification Application; or
- Requires immediate notification of regulatory entities (e.g., 10 CFR Part 21, HWFP Module I.E.13); or
- Indicates a significant failure or breakdown in the implementation of QA program requirements; or
- Has not been resolved after repeated attempts; or
- Is identified in items or activities important to safety or waste isolation and compromises the ability to prevent or mitigate the consequences of an accident, thereby presenting a significant hazard to safety and health of workers and/or the public; or
- Constitutes an adverse trend or inclination, as determined by formal performance evaluation and trend analysis.

Trend Only – Issues where no activities are required for closure. These may include issues generated as a result of work performed at generator sites, issues that are outside the scope of the WIPP QA program, or CAQs corrected during an assessment.

PREREQUISITE ACTIONS

- 1.0** Personnel responsible for preparing a CAP, complete Apparent Cause Analysis Training (e.g., QAP-104, *Apparent Cause Analysis and Corrective Action Planning*) or formal Root Cause Training (e.g. Phoenix Method, TapRoot®) prior to preparing the CAP.

PERFORMANCE

1.0 WIPP FORM AVAILABILITY

1.1 WIPP Form Coordinator, perform the following:

- Ensure electronic WIPP Form is maintained on the WIPPnet.
- Ensure electronic WIPP Form database is maintained on the WIPPnet.
- Provide paper copies of blank WIPP Forms at designated locations throughout the WIPP site and Skeen-Whitlock Building.

2.0 WIPP FORM INITIATION

NOTE

Any WIPP employee who works under the NWP Quality Assurance Program can generate a WIPP Form, either electronically or by hand. Paper copies are available at designated locations to employees without access to computer terminals. Issues associated with abnormal events and personnel injuries should be documented on a WIPP Form as soon as possible, although the generation of the WIPP Form does not take precedence over any immediate actions to stabilize a situation or notify the Central Monitoring Room Operator. While the concurrence of the originator's manager is not mandatory, employees are encouraged to discuss issues with their manager prior to submitting a WIPP Form.

NOTE

A "master" WIPP Form should be generated by a coordinator, responsible manager, or champion to address audits or assessments which identify multiple, differing issues (e.g., external audit findings, management assessments, etc.). Individual issues that are identified in such audits or assessments should be entered on separate WIPP Forms with the help of the WIPP Form Coordinator. These "subordinate" WIPP Forms will be linked to the master WIPP Form by the WIPP Form Coordinator so that all issues related to an audit or assessment may be better grouped and tracked. A Subordinate WIPP Form may address an issue identified multiple times, even when the issue crosses Section/Department line of responsibility. The Corrective Action Plan will address the actions to correct the issues identified within each Section/Department.

- 2.1 Originator, record the following on either a paper copy of EA15GM1002-1-0 (including EA15GM1002-2-0 if necessary), or electronically:

- Date of issue identification
- Location (if applicable)
- Description of the issue/condition – If the issue/condition is the violation of a procedural or regulatory requirement, identify the procedure number and step or regulatory identifier and the nature of the violation. If the issue/condition is a process improvement, identify the condition as such. Describe the condition in sufficient detail to allow later confirmation that the issue has been resolved. Use job titles and not personal names of involved individuals.
- References may include debriefs or critiques, procedure numbers, WO numbers, engineering document numbers, or regulatory document numbers, as applicable to the issue. If the issue resulted from External Oversight Activities, a CCP CAR, or any numbered assessment, include the applicable assessment or CAR number.
- WP 15-MD3102 requires that the debrief or critique be provided to the WIPP Form Coordinator with the WIPP Form. For CDAs, include the assessment number, if applicable, from which the deficiency was identified and corrected, or a copy of the assessment.
- Equipment identification, if applicable
- Immediate actions taken (if any) or recommended corrective action. If the immediate actions taken have corrected the problem, include as much information as possible such as WO number, NCR number, ECO number, and procedure number and revision.
- Originator information (name, department)

2.2 Originator, submit WIPP Form either electronically to the WIPP Form Coordinator or by placing the WIPP Form in a box provided at selected locations at the Skeen-Whitlock Building/WIPP site, or take it to the WIPP Form Coordinator.

3.0 WIPP FORM SCREENING

3.1 WIPP Form Coordinator/WIPP Form Screening Committee Chairperson, perform the following:

3.1.1 Collect paper copy WIPP Forms from drop boxes.

- 3.1.2 Prescreen WIPP Forms with other screening committee members as necessary to ensure that personal information and inappropriate language do not appear on WIPP Forms.
- 3.1.3 Ensure that a unique tracking number is assigned to the WIPP Form and that the WIPP Form database contains sufficient information to describe the issue while at the same time protecting personal information.
- 3.1.4 If a WIPP Form is a Subordinate WIPP Form to a Master WIPP Form, ensure that the tracking number for the Subordinate WIPP Form references the Master WIPP Form.
- 3.1.5 Notify the remaining WIPP Form Screening Committee members, the Facility Shift Manager (FSM), the QA Manager, the Facility Manager Designee (FMD), and the Compliance Coordinator of newly generated WIPP Forms.
- 3.1.6 Notify the WIPP Form originator that the WIPP Form has been accepted for processing.
- 3.1.7 Prepare copies of new WIPP Forms (either hard copy or electronically) for review by the screening committee.

NOTE

Occurrence Reporting and Processing System (ORPS) and PAAA/10CFR851 screenings can be concurrent and be completed prior to review by the WIPP Form Screening Committee.

- 3.2 Perform screenings as follows:
 - 3.2.1 If the issue documented on the WIPP Form is reportable, FMD report the occurrence in accordance with WP 12-ES3918.
 - 3.2.2 Make the appropriate entries onto the WIPP Form to indicate whether the issue is reportable, the ORPS number, the ORPS reported discovery date, and target dates for completion of the critique, root cause analysis or causal analysis to ensure that a Corrective Action Plan (CAP) can be developed and approved to meet the 45-day time frame for corrective actions to be entered into ORPS in accordance with WP 12-ES3918.
 - 3.2.3 If the issue is Noncompliance Tracking System (NTS) reportable, Compliance Coordinator report the occurrence in accordance with WP 15-RA.01.

- 3.2.4 Make the appropriate entries onto the WIPP Form to indicate whether or not the issue is NTS reportable.

NOTE

The Screening Committee should request clarification or more information from the WIPP Form originator if the issue to be addressed is not clear to ensure that appropriate actions can be taken.

NOTE

The WIPP Form Screening Committee Chairperson may screen WIPP Forms that identify issues that cannot be addressed using IMPS (Human Resource issues, equipment issues) and document the determination and disposition the WIPP Forms. The WIPP Form Screening Committee Chairperson will report these actions to the WIPP Form Screening Committee.

- 3.3 WIPP Form Screening Committee, disposition the issue based on the following:
- 3.3.1 If the issue has been already identified on an earlier WIPP Form, annotate the earlier WIPP Form number on the new WIPP Form and close the new WIPP Form with no further action by the WIPP Form Screening Committee.
 - 3.3.2 If the issue is already being addressed through other processes such as WOs, NCRs, or ECOs and the issue does not appear to be programmatic, identify the WO, NCR, and/or ECO number and close the WIPP Form with no further action by the WIPP Form Screening Committee.
 - 3.3.3 If the issue is unclear or requires additional information, request more information from the originator or a Responsible Manager to establish a clear understanding of the issue prior to determining the issue type.
 - 3.3.4 If the issue involves employee behaviors or interactions best addressed by Human Resources (HR) or the responsible manager, indicate that the issue is being routed to HR and/or the responsible manager and close the WIPP Form with no further action by the WIPP Form Screening Committee.
 - 3.3.5 Determine the issue type (e.g., Process Improvement; CAQ; potential SCAQ; potential PAAA or ORPS reportable if not already determined; HR issue) using attachment 2. More than one type may be applicable to an issue.

NOTE

CDAs may be identified for trend only if the issue does not appear to be programmatic and the action sufficiently addresses the issue.

- 3.3.6 If a CDA is identified for trend only, identify a cause code in accordance with attachment 3.
- 3.3.7 Identify the trend codes using attachment 2.
- 3.3.8 For a CAQ that is NOT a CDA, assign the appropriate Responsible Manager to develop a CAP. The assigned Responsible Manager should be one who can integrate corrective actions across group, section, or department lines.
- 3.3.9 For process improvements, assign a CAP to the appropriate Responsible Manager. In some cases a CAP is not necessary based on the actions that may already be in progress when the WIPP Form is generated.

NOTE

IMPS is an electronic system designed to process WIPP Forms through all aspects of this procedure with the exception of closure signatures. An individual assigned the responsibility for an action in a CAP is added as a reviewer by the system. Any other reviewers required by this procedure or requested by the WIPP Form Committee are added by the WIPP Form Coordinator. Reviews are completed by electronic approval or rejection of the CAP in IMPS.

3.3.10 Determine required CAP reviewers.

- [A] If the issue is related to QA assessment findings, add appropriate QA personnel (Lead Assessor and/or QA management) as a required CAP reviewer.
- [B] If the issue is determined to be an SCAQ, add the Cognizant Department Manager and the QA Manager as required reviewers.
- [C] If the issue is NTS reportable, add the Compliance Coordinator as a required reviewer.

3.4 WIPP Form Coordinator, perform the following:

3.4.1 Ensure the following is recorded on the WIPP Form:

- WIPP Form Screening Committee determinations, dispositions, and trend codes, the Responsible Manager and CAP reviewers
- Any special or additional information or conditions regarding pertinent decisions made by the WIPP Form Screening Committee

NOTE

The QA Manager is allowed 10 working days to complete the SCAQ determination. If additional time is required, the QA Manager can request an extension from the Screening Committee Chairperson. Extension requests and approvals/rejections will be attached to the WIPP Form file.

3.4.2 Route potential SCAQ issues to the QA Manager for determination prior to routing the issue to the Responsible Manager to develop the CAP.

3.4.3 Notify affected organizations.

3.5 If the issue is a potential SCAQ issue, QA Manager perform the following:

3.5.1 Determine if the issue meets the criteria for SCAQ and apply appropriate compensatory actions including work stoppage, if applicable.

3.5.2 Notify the affected organization(s).

3.5.3 If work is suspended, ensure that applicable corrective actions have been completed prior to lifting the work suspension and document the lifting of work suspension and justification on an attachment to the WIPP Form.

3.6 WIPP Form Coordinator, perform the following:

3.6.1 Ensure the FMD and Compliance Coordinator have marked the WIPP Form appropriately, if not already completed.

3.6.2 Notify the assigned Responsible Manager and other affected individuals according to the WIPP Form disposition.

NOTE

Due dates for CAPs are typically assigned to CAP managers to allow 10 working days from the date of Committee approval for preparation and submittal. Due dates for complex or serious issues (e.g., those requiring SCAQ determination or requiring a Root Cause Analysis [RCA]) will not be entered until after the predecessor actions are complete. The length of time allowed for evaluation may be limited when external reporting is necessary (45 days for submittal of corrective actions associated with events reported in accordance with WP 12-ES3918; 60 days maximum for events reportable to the U.S. Nuclear Regulatory Commission under 10 CFR Part 21).

NOTE

If additional time is required, the Responsible Manager can request an initial extension from the Screening Committee Chairperson. Additional extensions that may be needed must be pre-approved by the Department Manager responsible for the issue. Extension requests and approvals/rejections will be attached to the WIPP Form file.

- 3.6.3 If a CAP is required, ensure the CAP submittal due date (typically 10 working days from the date of Committee approval) is entered into the electronic tracking system.
- 3.6.4 If a CAP is required, notify the WIPP Form originator when the WIPP Form has been screened by the committee and a CAP has been assigned.
- 3.6.5 If no further action is required, or the actions previously taken, or information provided have effectively addressed the issue, **GO TO** section 5.0 for closure.

4.0 RESOLUTION AND CORRECTIVE ACTION

NOTE

Responsible Managers should request clarification or more information from the WIPP Form originator if the issue to be addressed is not clear to ensure that appropriate corrective actions are taken.

NOTE

WP 15-PA.02 provides useful information for preparing a CAP and associated corrective actions.

NOTE

Cause codes do not need to be assigned to a CAP identified as a process improvement. "No cause – process improvement" should be entered on the CAP in the attachment 1 format. Cause codes are required to be assigned for a CAP identified as the CAQ or SCAQ.

4.1 Responsible Manager, perform the following:

4.1.1 Provide information when requested by the WIPP Form Screening Committee.

4.1.2 If the issue is a CAQ, but not a CDA, or if a CAP is requested by the WIPP Form Screening Committee, perform the following:

[A] Develop a CAP using the format in attachment 1 and ensure that the CAP adequately addresses the issue(s) identified in the WIPP Form.

4.1.3 Submit the CAP electronically by the required due date unless otherwise specified (approved extension).

4.1.4 If the issue is an SCAQ or NTS reportable, perform the following:

[A] Develop a CAP by incorporating the recommended corrective actions from root cause or causal analysis, and by using the format in attachment 1.

- 4.1.5 Submit the approved CAP electronically as soon as possible but no later than 10 working days following completion of the RCA or causal analysis, unless otherwise specified (approved extension). For example, issues that are reportable in ORPS require corrective actions to be identified within 45 calendar days of the reported event, in accordance with WP 12-ES3918. Issues identified from External Oversight Activities or CCP CARs may also require schedules.

NOTE

CAPs written in response to External Oversight or CCP WIPP Forms may require submittal to the governing agency or authority in an acceptable alternate format in addition to the format utilized by this procedure.

- 4.2 WIPP Form Screening Committee, perform the following:
- 4.2.1 Review the furnished CAP to ensure that the CAP adequately addresses the issue(s) identified on the WIPP Form.
- 4.2.2 Resolve issues with the CAP with the Responsible Manager. (If the CAP is rejected, assign a new date for resubmittal but not later than 10 working days following Committee rejection.)
- 4.2.3 Accept the CAP.

NOTE

If additional time is required for specific actions, the Responsible Manager can request an initial extension from the Screening Committee Chairperson. Additional extensions that may be needed must be pre-approved by the Department Manager responsible for the issue. Extension requests and approvals/rejections will be attached to the WIPP Form file. Extensions for External Oversight Activities or CCP CARs may require additional approvals.

- 4.3 WIPP Form Coordinator, ensure that the actions, action party, and due dates are entered into the electronic tracking system and notify the WIPP Form originator that the WIPP Form CAP has been accepted by the committee.
- 5.0 WIPP FORM CLOSURE
- 5.1 Assigned Responsible Manager or Action Party, perform the following:
- 5.1.1 Complete assigned corrective actions and assemble objective evidence of completion.

- 5.1.2 Ensure that objective evidence of completion is free of personal information. While copies of safety meeting attendance sheets are considered acceptable, training records are considered private.
- 5.1.3 Attach Adobe Acrobat files containing objective evidence of the completed commitments or actions in IMPS.
- 5.2 WIPP Form Coordinator, review the issue package to ensure objective evidence for required commitments is on file and that required signatures (QA Manager, Compliance Coordinator, Cognizant Department Manager, and Lead Assessor and/or QA management, as appropriate) are in place.
- 5.3 WIPP Form Coordinator, submit the WIPP Form and associated documentation (either hard copy or electronically) to the WIPP Form Screening Committee for closure.
- 5.4 WIPP Form Screening Committee, review the closure documentation and determine if the documentation is sufficient for WIPP Form Closure.
- 5.5 Chairperson (or designee), ensure any open issues have been resolved prior to signing and dating the WIPP Form, signifying the consensus of the committee for closure.
- 5.6 WIPP Form Coordinator, perform the following:
 - 5.6.1 For SCAQ and/or NTS reportable issues, assign an action in the electronic tracking system for QA to perform an independent audit or surveillance within 3 to 12 months after the WIPP Form closure to determine the effectiveness of the corrective actions.
 - 5.6.2 Notify the WIPP Form originator that actions are complete and the issue is closed.
 - 5.6.3 For WIPP Forms which identified multiple issues (e.g., external audit findings), notify the appropriate coordinator, responsible manager, or champion that actions are complete and the issues are closed. For example, for External Oversight Activities notify the External Oversight Activities Coordinator, for CCP CARs notify the National TRU Program Certification Manager, and for management assessments notify the responsible manager.
 - 5.6.4 Route electronic notification of closure to the Lessons Learned Coordinator.
 - 5.6.5 File the completed WIPP Form Package.

Attachment 1 – Corrective Action Plan (CAP) Content

General

SCAQ/NTS reportable WIPP Forms require performance of a formal root cause analysis in accordance with WP 15-GM1001. Some items reportable in ORPS require causal analysis, but not necessarily a RCA. The CAP should incorporate the recommendations from the RCA or causal analysis. Recommended corrective actions from debriefs and critiques should also be considered for inclusion in the CAP unless the corrective actions identified in the RCA or causal analysis are more comprehensive than those identified early in an investigation.

The CAP shall address the following:

1.0 Describe the issue being addressed

Summarize the problem. This wording is derived from the WIPP Form issue description.

2.0 Cause of the issue:

Determine/document the cause(s) of the issue, using the three-tiered (i.e., AxBxCxx) cause codes listed in attachment 3. If more than one cause code applies, identify each of the applicable codes. No cause – process improvement is entered for WIPP Forms identified as process improvements requiring a CAP.

3.0 Extent and Impact:

Describe the extent and impact of the issue being addressed. To adequately identify the extent and impact it may be necessary to review other WIPP Forms, NCRs, WOs, ECOs, past assessments, etc. The extent and impact may be identified in the debrief, critique, causal analysis, and/or RCA for issues that were investigated in accordance with WP 15-MD3102 and WP 15-GM1001. The extent of condition should specifically identify if the issue is a recurring condition. While a specific issue may be new to a particular group or individual, the issue may have been previously identified such that the past corrective actions did not cross organizational lines and were not adequate to prevent recurrence.

4.0 Corrective/Preventive Actions Planned or Taken:

Document planned or completed actions to resolve the issue and prevent its reoccurrence. Corrective actions can include immediate, compensatory, short term and long term actions, depending on the nature of the issue being addressed. If the issue is a recurring condition, the corrective actions may need to be more comprehensive than previous actions taken. If the issue was investigated through a debrief, critique or RCA, include recommended corrective actions from the debrief and/or critique, causal analysis (WP 15-MD3102); and/or RCA (WP 15-GM1001), as appropriate, including any compensatory actions that

Attachment 1 – Corrective Action Plan (CAP) Content

were taken immediately following the incident. Additionally, corrective actions should be sufficiently comprehensive to address each cause code identified for the issue.

Action parties and target completion dates are required for CAPs. If the corrective actions extend beyond the assigned Responsible Manager's organization, the assigned Responsible Manager should coordinate with the other manager(s)/action parties to establish expected completion dates.

If no corrective/preventive actions are planned or required, provide a justification. If an action has been completed at the time the CAP is generated, objective evidence of the completed action should be submitted with the CAP to avoid the action being past due.

Attachment 2 – Determination and Trend Codes

Determination

CAQ – To be assigned to a Responsible Manager, who will be responsible for development of a corrective action plan and tracking the completion of any actions required to resolve the issue.

Nonconformance – Equipment issues that require processing in accordance with WP 13-QA3004, *Nonconformance Reports*.

Potential SCAQ – As determined by the Manager QA.

Potential PAAA/10CFR851 Reportable – As determined by the Compliance Coordinator.

Safety issue – Injuries, potential for injuries, vehicle incidents, damage to equipment by mobile equipment, etc. A safety review of the CAP is prudent.

Equipment Malfunction/Maintenance – Issues that are resolved in accordance with WP 10-WC3011, *Work Control Process*.

HR Issue – Issues specific to personnel, labor contract, management guidance, etc.

Process Improvement – Should be assigned to a Responsible Manager for development of a CAP if a procedure or design needs to be generated or revised or if multiple organizations are involved to implement the improvement.

Trend Only – Issues where no activities are required for closure.

Training – Issues that identify deficiencies or improvements applicable to training.

Security – Issues that identify deficiencies or improvements applicable to security.

HWFP Noncompliance – Issues resulting in a noncompliance with the permit.

Nuclear Safety – Issues that involve violations of the Technical Safety Requirement (TSRs), corrections to the TSRs or Documented Safety Analysis (DSA) or supporting documents (Examples include Fire Hazards Analysis, Criticality Reports, Hazard Identification or Analysis applicable to the DSA), Potential Inadequate Safety Analysis (PISAs), etc.

QA Assessment – Issues that are identified through QA oversight.

Self-Identified – Issues or process improvement.

Work Control – Issues specific to roles and responsibilities that include screening, scheduling, planning, execution, and closure of work documents.

Other – Issues other than those listed.

Attachment 2 – Determination and Trend Codes

Trend Codes

RH

CH

Underground

Surface

Electrical

Mechanical

Environmental

Mobile Equipment

Transportation

Safety Management Program (SMP) - Criticality Safety

SMP - Radiation Protection

SMP - Hazardous Material Protection

SMP - Radioactive and Hazardous Waste Management

SMP - Testing, Surveillance, Maintenance

SMP - Operational Safety (Conduct of Operations/Fire Protection)

SMP - Procedures and Training

SMP - Human Factors

SMP - Quality Assurance

SMP - Emergency Preparedness

SMP - Decon and Decommissioning

SMP - Mgmt, Org, Institutional Safety

Other

TSR Violation

Attachment 3 – Cause Codes

Category A1		Design/Engineering Problem		An event or condition that can be traced to a defect in design or other factors related to configuration.
A1	Subc B1	Design input Less Than Adequate (LTA)		Input to a design was lacking adequate information that was necessary for the design.
A1	B1	C01	Design input cannot be met	The criteria and other requirements were so stringent that they could not be met. There were conflicting criteria. Not all of the necessary references were included.
A1	B1	C02	Design input obsolete	The criteria were out-of-date. An old version of a requirement or specification was used. Process requirements/conditions changed and the changes were omitted from the input.
A1	B1	C03	Design input not correct	The wrong standards or requirements were used. The requirements were transcribed in error.
A1	B1	C04	Necessary design input not available	The necessary requirements, codes, standards, etc., were not available to the designer.
A1	Subc B2	Design output LTA		Inadequate design output that did not meet the customer's expectations or design requirements.
A1	B2	C01	Design output scope LTA	The design did not consider all the possible scenarios. All the operating conditions, normal and emergency were not included in the design.
A1	B2	C02	Design output not clear	The drawings were difficult to read. The specifications were difficult to understand. The specification could be interpreted in more than one way.
A1	B2	C03	Design output not correct	The drawings and other specifications were incorrect. The final design output did not include all changes.
A1	B2	C04	Inconsistent design output	There were differences between different output documents. The drawings and other design documents did not agree.
A1	B2	C05	Design output not addressed in design output	The specifications did not include all the requirements. Some criteria were left out of the design output.
A1	B2	C06	Drawing, specification or data error	The latest drawing revision was not referenced. The latest vendor information was not included in the design documentation. The correct data was not noted on the design documentation request.
A1	B2	C07	Error in equipment or material selection	The correct vendor identification number was not used for procurement of equipment. For example, the correct grade of stainless steel was not specified for the material.
A1	B2	C08	Errors not detectable	Personnel were unable to detect errors by way of alarms or instrument readings during or after the occurrence. A serious error went unnoticed because there was no way to monitor system status.
A1	B2	C09	Errors not recoverable	The system was designed such that personnel were unable to recover from error discovered before a failure occurred.

Attachment 3 – Cause Codes

A1	Subc B3		Design/Documentation LTA	Design or documentation that did not include all of the required information and did not comply with document control and records requirements.
A1	B3	C01	Design/Documentation not complete	The designs and other documentation for equipment were incomplete. Items were missing from the documentation. A complete baseline did not exist.
A1	B3	C02	Design/Documentation not up to date	Drawings and documents were not updated when changes were made. Documents/drawings did not reflect the current status.
A1	B3	C03	Design/Documentation not controlled	The design documentation was not controlled per site requirements for document control and records.
A1	Subc B4		Design Verification/Installation Verification LTA	Design reviews, testing, independent inspections, and acceptance were not in compliance with customer expectations and/or site requirements.
A1	B4	C01	Independent review of design/documentation LTA	A required review was not performed on the design. The review was not performed by an independent reviewer.
A1	B4	C02	Testing of design/documentation LTA	Testing was not included as part of the design acceptance process. The testing did not verify the operability of the design. Design parameters did not successfully pass all testing criteria.
A1	B4	C03	Independent inspection of design/documentation LTA	Independent Inspection attributes were not included in the design installation. Required hold/witness points were not verified by QA. Hold/Witness points did not pass the acceptance criteria. Commercial grade material was not adequately dedicated or documented.
A1	B4	C04	Acceptance of design/documentation LTA	The customer had problems with acceptance of the design, testing, and/or verification.
A1	Subc B5		Operability of Design/Environment LTA	Personnel or environmental factors were not considered as part of the design.
A1	B5	C01	Ergonomics LTA	Inadequate ergonomic design contributed to the occurrence. The operator was physically incapable of performing the required task. The operator had to go too far to respond to the alarm. Personnel mobility or vision was restricted. An individual had difficulty reaching the equipment or assumed an awkward position to complete a task. The event was caused because illumination levels were not sufficient for task performance.
A1	B5	C02	Physical environment LTA	Inadequate equipment controls or control systems [e.g., push-buttons, rotary controls, j-handles, key-operated controls] contributed to the occurrence. The control failed to provide an adequate range of control for the function it performs. The control was inadequately protected from accidental activation. Similar controls were indistinguishable from one another. Controls were in too close proximity of each other. Operating conditions affected performance of the task. Lighting was inadequate. Noise was a factor.
A1	B5	C03	Natural environment LTA	Exposure to heat, cold, wind, and rain was not included in the design. Earthquake tested devices were not included in the design. System was not designed to withstand flooding, freezing, or high wind conditions. Lightning suppressing devices were not included in the design. The event was caused by excessive exposure of personnel to a hot or cold environment.

Attachment 3 – Cause Codes

Category A2			Equipment/Material Problem	Is defined as an event or condition resulting from the failure, malfunction, or deterioration of equipment or parts, including instruments or material.
A2	Subc B1		Calibration for Instruments LTA	Calibrations did not include all the essential elements. Equipment as-found condition was less than adequate.
A2	B1	C01	Calibration LTA	The equipment involved in the incident was not included in a routine calibration program. Calibrations were performed too infrequently. The calibration did not include all the essential elements.
A2	B1	C02	Equipment found outside acceptance criteria	An event occurred as a result of equipment that was found outside of the specified acceptance criteria. The instrument calibration drift was outside of the acceptable range. Process instrumentation was outside of acceptable range criteria due to a standard that was out of calibration.
A2	Subc B2		Periodic/Corrective Maintenance LTA	Periodic maintenance was not established for the equipment or component. The periodic or corrective maintenance was inadequate. Equipment history did not exist or was incomplete for the instrument or component.
A2	B2	C01	Preventive maintenance for equipment LTA	An equipment malfunction was caused by a failure to carry out scheduled preventive maintenance. Preventive maintenance was not established for the equipment or component that failed. Preventive maintenance was scheduled too infrequently. The preventive maintenance was incomplete. Preventive maintenance was performed on some of the components but not on others.
A2	B2	C02	Predictive maintenance LTA	Predictive maintenance was not established for the equipment. The established frequency was inadequate to prevent or detect equipment degradation. The established method used to prevent or detect equipment degradations was inadequate.
A2	B2	C03	Corrective maintenance LTA	Corrective maintenance was performed but failed to correct the originating problem. The equipment or component was reassembled improperly during corrective maintenance. Other problems were noted during maintenance activities that were not corrected. The actual job of performing a maintenance activity was complete, but was not performed correctly.
A2	B2	C04	Equipment history LTA	Equipment history/records did not exist for the equipment that malfunctioned. The history for the equipment that malfunctioned was incomplete/inadequate. The history did not contain all the information necessary to assure equipment reliability. Knowledge of equipment history would have prevented the incident or lessened its severity.
A2	Subc B3		Inspection/Testing LTA	Scheduled inspection/testing did not exist for the equipment or component. The inspection/testing was inadequate or not performed as required or did not include all the essential elements. Note A1B4 should be used for design testing.
A2	B3	C01	Startup Testing LTA	Functional testing did not exist for the equipment or system prior to placing them in service. Start-up testing was inadequate for the equipment or system being placed into service.

Attachment 3 – Cause Codes

A2	B3	C02	Inspection/Testing LTA	Required testing inspection was not established or performed for the equipment involved in the incident. The required testing/inspection was performed at an incorrect frequency. The acceptance criteria for the required testing/inspection were inadequately defined. All essential components were not included in the required testing/inspection.
A2	B3	C03	Post-maintenance/Post-modification testing LTA	The post-maintenance or post-modification testing specified was not performed or was performed incorrectly. The post-maintenance or post-modification testing was completed, but the testing requirements were less than adequate. The post-maintenance or post-modification testing was not performed in accordance with the schedule for testing.
A2	Subc B4	Material control LTA		The problem was due to the inadequate handling, storage, packaging or shipping of materials or equipment. The shelf life for material was exceeded. An unauthorized material or equipment substitution was made. Spare parts were inadequately stored. There was an error made in the labeling or marking.
A2	B4	C01	Material handling LTA	Material or equipment was damaged or mixed up during handling.
A2	B4	C02	Material storage LTA	The material or equipment was stored improperly. The material or equipment was damaged in storage or had weather damage or was stored in an environment that damaged it (heat, cold, acid fumes, etc.) or there was inadequate preventive maintenance performed during storage.
A2	B4	C03	Material packaging LTA	The material or equipment was packaged improperly; the material or equipment was damaged due to improper packaging; the material or equipment was damaged as a result of damage to the packaging.
A2	B4	C04	Material shipping LTA	The material or equipment was transported improperly. The material or equipment was damaged during shipping.
A2	B4	C05	Shelf life exceeded	Material, equipment, or parts that had exceeded the shelf life were installed. Materials continued in use after the shelf life was exceeded.
A2	B4	C06	Unauthorized material substitution	Incorrect materials or parts were substituted. Materials or parts were substituted without authorization. The requirements specified no substitutions.
A2	B4	C07	Marking/Labeling LTA	There was an error made in the labeling or marking. Equipment identification, labeling, or marking was less than adequate.
A2	Subc B5	Procurement control LTA		The error was due to inadequate control of changes to procurement specifications or purchase orders. A fabricated item failed to meet requirements or an incorrect item was received. Product acceptance requirements failed to match design requirements or were otherwise unacceptable. Note that procured services are addressed A4B2C10.
A2	B5	C01	Control of change to procurement specification/purchase order LTA	Changes were made to purchase orders or procurement specifications without the proper reviews and approvals. The changes resulted in purchase of the wrong material, equipment, or parts.
A2	B5	C02	Fabrication item does not meet requirements	The item of concern was not fabricated according to the requirements specified in the procurement specifications or purchase requisition.

Attachment 3 – Cause Codes

A2	B5	C03	Incorrect item received	An item received was not the one ordered. The inconsistency was not recognized. The item was accepted rather than returned.
A2	B5	C04	Product acceptance requirements LTA	The product acceptance requirements were incomplete. The product acceptance requirements did not address all the safety concerns for the item. The requirements did not address all the concerns for efficiency.
A2	Subc B6		Defective, Failed or Contaminated	An event was caused by a failed or defective part. The material used was defective or flawed. The weld, braze or soldered joint was defective. The component reached the end of its expected service life. There was electrical or instrument noise interference or interaction. Foreign material or contaminant caused the equipment or component to fail.
A2	B6	C01	Defective or failed part	A part/instrument that lacked something essential to perform its intended function. The degraded performance of a part or component contributed to the failure of the component, equipment or system. Note – use of this code does not explain why the item failed. Therefore, this node should be multiple coded.
A2	B6	C02	Defective or failed material	A component failed because the material used was not adequate for the application. The material used was found to be defective, flawed or damaged. Note – use of this code does not explain why the item failed. Therefore, this node should be multiple coded.
A2	B6	C03	Defective weld, braze, or soldering joint	A specific weld joint defect or failure. Note – use of this code does not explain why the item failed. Therefore, this node should be multiple coded.
A2	B6	C04	End of life failure	The failure resulted from equipment or material having reached the end of its expected or normal service life.
A2	B6	C05	Electrical or instrument noise	An unwanted signal or disturbance that interfered with the operation of equipment.
A2	B6	C06	Contamination	Failure or degradation of a system or component due to foreign material (i.e., dirt, impurities, salt buildup) or radiation damage due to excessive exposure.
Category A3			Human Performance LTA	An event or condition resulting from the failure, malfunction, or deterioration of the human performance associated with the process. Note that A3B1, A3B2, A3B3 are only applicable to problem solving. If the error occurs due to medications, look to A3B4C01 or A5B4C06. If there are multiple cases of A3C nodes, look for other rationale behind the behavior.
A3	Subc B1		Skill Based Errors	Inattention or over-attention to performance of work affected the event.
A3	B1	C01	Check of work was LTA	An individual made an error that would have been detectable and correctable if a check of the completed or partially completed work was performed.
A3	B1	C02	Step was omitted due to distraction	Attention was diverted to another issue during performance of the task and the individual committed an error in performance due to the distraction.
A3	B1	C03	Incorrect performance due to mental lapse	The individual knew appropriate action(s) to take, but failed to initiate the correct action(s) based on inattention/over-attention.
A3	B1	C04	Infrequently performed steps are performed incorrectly	An individual was not completely familiar with the tasks required based on not frequently performing the tasks and not operating at a fluency level.

Attachment 3 – Cause Codes

A3	B1	C05	Delay in time cause LTA actions	An individual performed the wrong actions based on an extended length of time expiring between the time the task was defined and the time the task was completed.
A3	B1	C06	Wrong action selected based on similarity with other actions	An individual selected a wrong action out of a series of actions that appeared to be the same but are not.
A3	B1	C07	Omission/repeating of steps based on assumptions for completion	Individual, based on assumptions, concluded that activity steps were not completed. An error occurred because the incorrect decision or assumption was made.
A3	Subc B2	Rule Based Error		A misapplication of a good rule for behavior or application of a bad rule applied for behavior during the work process impacted the event.
A3	B2	C01	Strong rule incorrectly chosen over other rules	Individual chose behavior rules based on the number of times the rule(s) had been used successfully in the past. The more times the rule(s) have been used successfully, the stronger the desire to apply the rule(s) become.
A3	B2	C02	Signs to stop were ignored and step performed incorrectly	Most activities generate indication of status both positive and negative. The human tendency is to focus on the indications of success rather than all the indicators. The negative indicators are the signs to stop. "Signs" are not necessarily physical.
A3	B2	C03	Too much activity was occurring and error made in problem solving	The error was initiated when the individuals committing the error experience information overload. The right set of decisions was not made based on too many details to process mentally.
A3	B2	C04	Previous success in use of rules reinforces continued use of rule	If a rule for behavior has been used successfully in the past, there is an overwhelming tendency to apply the rule again, even though circumstances no longer warrant the use of the rule.
A3	B2	C05	Situation incorrectly identified or represented results in wrong rule used	Individual interpreted facts based on training and experience that helped form stored mental knowledge from which the individual interpreted the facts. When the individual used the stored knowledge, the right set of training and experience was sometimes not selected based on the existing facts. A broader search of the stored knowledge would have been necessary to explain the existing facts.
A3	Subc B3	Knowledge Based Error		The problem was solved without using stored rules for behavior. The involved personnel were in a problem solving troubleshooting mode.
A3	B3	C01	Attention was given to wrong issues	Selective mental processing of information was targeted at the wrong issues and was not focused on the right issues. Often the individual focus was centered around what was psychologically important instead of targeted on what was logically important.
A3	B3	C02	LTA conclusion based on sequence of facts	An individual when establishing a timeline or recalling step-by-step compilation of facts as they occurred in an event, sometimes reordered the sequence which affected the conclusion based on the facts.
A3	B3	C03	Individual justified action by focusing on biased evidence	An individual was overconfident in evaluating the correctness of his/her knowledge. The chosen course of action was selected based on evidence that favored it and contradictory evidence was overlooked.

Attachment 3 – Cause Codes

A3	B3	C04	LTA review based on assumption that process will not change	Individual believed that no variability existed in the process and overlooked the fact that a change has occurred leading to differing results than normally realized.
A3	B3	C05	Incorrect assumption that a correlation exists between two or more facts	Wrong assumptions were made based on the belief that two or more facts are related to each other and incorrect actions were taken based on the assumption.
A3	B3	C06	Individual underestimated the problem by using past events as basis	Individuals tend to oversimplify events. Based on stored knowledge of past events, the individual underestimated problems with the existing event and plans for fewer contingencies than will actually be needed.
A3	Subc B4	Work Practices LTA		The capacity to perform work was impaired. The act to incorrectly perform work was deliberate.
A3	B4	C01	Individual capabilities to perform work LTA	a. Sensory/Perceptual Capabilities LTA b. Motor/Physical Capabilities LTA c. Attitude/Psychological Profile LTA. Signs may include horseplay; absence from work location; failure to perform expected work; maliciousness; poor performance under stress; poor psychological health; use of drugs or alcohol; insubordination; failure to work well or communicate with others; disregard for safety rules.
A3	B4	C02	Deliberate violation	The action on the part of the individual was a deliberate action to commit human error.
Category A4			Management Problem	An event or condition that could be directly traced to managerial actions or methodology (or lack thereof).
A4	Subc B1	Management methods LTA		The processes used to control or direct work-related plant activities, including how manpower and material was allocated for a particular objective.
A4	B1	C01	Management policy guidance/expectations not well-defined, understood, or enforced	Personnel exhibited a lack of understanding of existing policy and/or expectations, or policy/expectations were not well-defined or policy/expectation is not enforced.
A4	B1	C02	Job performance standards not adequately defined	Measurement of effectiveness could not be performed for a specific job function due to lack of defined standards.
A4	B1	C03	Management direction created insufficient awareness of the impact of actions on safety/reliability	Management failed to provide direction regarding safeguards against non-conservative actions by personnel concerning quality, safety, or reliability.
A4	B1	C04	Management follow-up or monitoring of activities did not identify problems	Management methods for monitoring the success of initiatives were ineffective in identifying shortcomings in the implementation.
A4	B1	C05	Management assessment did not determine causes of previous event or known problem	Analysis methods failed to uncover the causal factors of consequential or nonconsequential events.
A4	B1	C06	Previous industry or in-house experience was not effectively used to prevent recurrence	Industry or in house experience relating to a current problem that existed prior to the event but was not assimilated by the organization.
A4	B1	C07	Responsibility of personnel not well defined or personnel not held accountable	Responsibility for process elements such as procedures, engineering, training, etc. was not placed with individuals or accountability for failures of those process elements was not placed with individuals.

Attachment 3 – Cause Codes

A4	B1	C08	Corrective action responses to a known or repetitive problem was untimely	Corrective action for known or recurring problem was not performed at the proper time or was not performed within the proper time.
A4	B1	C09	Corrective action for previously identified problem or event was not adequate to prevent recurrence	Meaningful corrective action was not taken. Extent of the corrective actions was not provided to more individuals.
A4	Subc B2	Resource Management LTA		Manpower and material allocation is insufficient to successfully perform assigned tasks.
A4	B2	C01	Too many administrative duties assigned to immediate supervisors	The administrative load on immediate supervisors adversely affects their ability to supervise ongoing activities.
A4	B2	C02	Insufficient supervisory resources to provide necessary supervision	Supervision resource is less than that required by task analysis considering the balance of procedures, supervision and training.
A4	B2	C03	Insufficient manpower to support identified goal/objective	Personnel were not available as required by task analysis of goal or objective.
A4	B2	C04	Resources not provided to assure adequate training was provided/maintained	Training resources were not available as required by task analysis.
A4	B2	C05	Needed resource changes not approved/funded	Corrective actions for existing deficiencies that were previously identified were not approved or funded.
A4	B2	C06	Means not provided to assure procedures/documents/records were of adequate quality and up-to-date	A process for changing procedures or other work documents to assure quality and timeliness was nonexistent or inadequate.
A4	B2	C07	Means not provided for assuring adequate availability of appropriate materials/operability	A process for supplying personnel with appropriate materials or tools did not exist.
A4	B2	C08	Means not provided for assuring adequate equipment quality, reliability, or operability	A process for assuring personnel's equipment was satisfactory did not exist.
A4	B2	C09	Personnel selection did not assure match of worker motivations or job descriptions.	Personnel selection processes failed to determine a mismatch between motivation and job description prior to task.
A4	B2	C10	Means/Method not provided for assuring adequate quality of contract services	A process for assuring quality contract services was being provided was nonexistent or inadequate.
A4	Subc B3	Work Organization & Planning LTA		Problems in how the work to be performed was organized, including work scope, planning, assignment and scheduling of a task to be performed. Failures in this node usually imply related failures in supervisory methods addressed in B4.
A4	B3	C01	Insufficient time for worker to prepare task	Scheduling of the task did not adequately address the time frame required for accepted worker preparation practices to occur.
A4	B3	C02	Insufficient time allotted for task	Scheduled duration of the task did not adequately address known conditions or account for reasonable emergent issues.
A4	B3	C03	Duties not well-distributed among personnel	The work loading individuals within a group or team did not adequately address training, experience, task frequency and duration, or other situational factors such that responsibility was inappropriately distributed.

Attachment 3 – Cause Codes

A4	B3	C04	Too few workers assigned to task	Job planning did not allot a realistic number of man hours or the number of people necessary to complete the task based on the scope of work described.
A4	B3	C05	Insufficient number of trained or experienced workers assigned to task	Though the overall number of personnel assigned matched the planned man hour allotment, organization methods failed to identify that the personnel assigned did not have adequate experience or training to perform the work.
A4	B3	C06	Planning not coordinated with inputs from walkdowns/task analysis	The job plan did not incorporate information gathered during field visits or task analysis concerning the steps and conditions required for successful completion of the task.
A4	B3	C07	Job scoping did not identify potential task interruptions and/or environmental stress	The work scoping process was not effective in detecting reasonable obstructions to work flow (e.g., shift changes) or the impact of environmental conditions.
A4	B3	C08	Job scoping did not identify special circumstances and/or conditions	The work scoping process was not effective in detecting work process elements having a dependency upon other circumstances or conditions.
A4	B3	C09	Work planning not coordinated with all departments involved in task	Interdepartmental communication and teamwork did not support the work flow being planned.
A4	B3	C10	Problem performing repetitive tasks and/or subtasks	The work flow plan repeated tasks or sub-tasks to the detriment of successful completion of the evolution.
A4	B3	C11	Inadequate work package preparation	Though scoping and planning were adequately performed, the work package did not reflect the information gathered from these activities.
A4	Subc B4	Supervisory Methods LTA		Causes that can be traced back to the <u>immediate</u> supervision and evaluated techniques that were used to monitor, direct and control work assignments. Supervision is a function not a title.
A4	B4	C01	Tasks and individual accountability not made clear to worker	Task and accountability for the task were outside written guidance or training was not made clear to the worker.
A4	B4	C02	Progress/status of task not adequately tracked	Supervision did not take the appropriate actions to monitor the task progress or status.
A4	B4	C03	Appropriate level of in-task supervision not determined prior to task	Supervision did not adequately assess the task for points of supervisory interaction prior to assignment to workers.
A4	B4	C04	Direct supervisory involvement in task interfered with overview role	Supervision became so involved with the actual task steps that overall command and control were adversely affected.
A4	B4	C05	Emphasis on schedule exceeded emphasis on methods/doing a good job	Accepted standards for methods were not met due to supervision's focus on completing the activity within a certain time frame.
A4	B4	C06	Job Performance and self-checking standards not properly communicated	Supervision failed to adequately communicate how standards for job performance and self-checking could be applied to the actual job at hand.
A4	B4	C07	Too many concurrent tasks assigned to worker	Supervision failed to detect that concurrent job assignments for an individual exceeded the individual's abilities.
A4	B4	C08	Frequent job or task "shuffling"	Supervision transferred a worker from one task to another without adequate time to shift attention away from previous task.

Attachment 3 – Cause Codes

A4	B4	C09	Assignment did not consider worker's need to use higher-order skills	Supervision did not consider the worker's talents or innovative strengths that could be used to perform more challenging work.
A4	B4	C10	Assignment did not consider effects of worker's previous task	Supervision did not adequately assess the previous task's impact upon the worker's ability to implement the current task.
A4	B4	C11	Assignment did not consider worker's ingrained work patterns	Supervision failed to assess the incompatibility between worker's ingrained work patterns and necessary work patterns for successful completion of the current task.
A4	B4	C12	Contact with personnel too infrequent to detect work habit/attitude changes	Supervision not aware of deviation from desired work habits/attitudes due to lack of interaction with personnel.
A4	B4	C13	Provided feedback on negative performance but not on positive performance	Worker's performance adversely affected by supervision's focus on negative performance feedback.
A4	Subc B5	Change Management LTA		Problems caused the process by which changes are controlled and implemented by management as organizational needs change to accommodate new business needs.
A4	B5	C01	Problem identification methods did not identify need for change	Existing problem identification methods did not recognize the difference between actual practices and expectations.
A4	B5	C02	Change not implemented in a timely manner	A change in expectations was not realized in practices within an acceptable time period.
A4	B5	C03	Inadequate vendor support of change	Management failed to adequately assess the ability of vendors to supply products or services in support of changing expectations for a particular objective.
A4	B5	C04	Risks/consequences associated with change not adequately reviewed/assessed	Elements of the process change were not recognized as having adverse impact or increased risk of adverse impact prior to implementing the change.
A4	B5	C05	System interactions not considered	Changes to processes or physical systems caused interactions with other processes or physical systems that were not identified prior to implementation.
A4	B5	C06	Personnel/department interactions not considered	Changes to processes created new requirements for interaction between personnel or departments that were not considered in the implementation phase of the change.
A4	B5	C07	Effects of change on schedules not adequately addressed	Changes to processes that resulted in scheduled changes had effects on personnel or equipment that were not addressed in the change implementation.
A4	B5	C08	Change related training/retraining not performed or not adequate	Changes to processes resulted in a need for new training or revisions to existing training activities that were not performed or were not adequate to meet the needs of the new process.
A4	B5	C09	Change related documents not developed or revised	Changes to processes resulted in a need for new training or revisions to existing training activities that were not performed or were not adequate to meet the needs of the new process.
A4	B5	C10	Change related equipment not provided or not revised	Changes to processes resulting in a need for new or revised software/hardware that was not provided or revised.
A4	B5	C11	Change not adequately communicated	Changes to processes were not communicated to affected personnel effectively.
A4	B5	C12	Change not identifiable during task	Changes to processes were not distinguishable from the previous process such that personnel did not modify how they performed the process.

Attachment 3 – Cause Codes

A4	B5	C13	Accuracy/effectiveness of change not verified or not validated	Verification/validation practices for process changes failed to identify inaccurate or ineffective methods.
Category A5			Communications LTA	Inadequate presentation or exchange of information. Persons on all sides of a communication link should be questioned regarding known or suspected problems.
A5	Subc B1		Written Communication Method of Presentation LTA	Problems with visual attributes of accurate information.
A5	B1	C01	Format deficiencies	The layout of the written communication made it difficult to follow. The format differed from that which the user was accustomed to using. The steps of the procedure were not logically grouped. Steps in the written communication had more than one action or direction to perform. Some steps stated one action, which in practice required several steps to perform.
A5	B1	C02	Improper referencing or branching	The written communication referred to an excessive number of additional procedures; contained numerous steps of the type Calculate limits per procedure XYZ; the written communication was difficult to follow because of excessive branching to other procedures. References to different processes and areas contributed to the event.
A5	B1	C03	Checklist LTA	An error was made because each separate action in a step did not have a check off space provided; the checklist was confusing. Each instruction did not clearly indicate what was required. Insufficient room was provided for the response; The checklist required unique responses for each step.
A5	B1	C04	Deficiencies in user aid (charts, etc.)	An error was made because graphics or drawings were of poor quality. The graphics or drawings were unclear, confusing, or misleading. Graphics, including datasheets, were not legible.
A5	B1	C05	Recent change not made apparent to user	The written communication user was required to carry out an action different from those he was accustomed to doing. The written communication did not identify that the step for this action had been revised. The written communication user performed the action as the previous revision specified rather than the current revision.
A5	B1	C06	Instruction step/information in wrong sequence	The instructions in the written communication were out of sequence.
A5	B1	C07	Unclear/complex wording or grammar	Wording, grammar or symbols fail to clearly and concisely specify the required action: instructions provided for team of users failed to specify roles of each user. Considering the training and experience of the user, the written communication was too difficult to understand or follow. There was insufficient information to identify the appropriate written communication. The written communication was not designed for the less practiced user.
A5	Subc B2		Written Communication Content LTA	Any written document used to perform work such as procedures, work orders, memos, standing orders, manuals, surveillance, etc.
A5	B2	C01	Limit accuracies	Limits were not expressed clearly and concisely. Limits or permissible operating ranges were expressed in a +/- format instead of absolute numbers.
A5	B2	C02	Difficult to implement	Standards, Policies, or Administrative Controls were not followed because no practical way of implementing them existed. Implementation would have hindered production.

Attachment 3 – Cause Codes

A5	B2	C03	Data/computations wrong/incomplete	The error was made because of a mistake in recording or transferring data. Calculations were made incorrectly. The formula or equation was confusing or had multiple steps.
A5	B2	C04	Equipment identification LTA	The equipment identification was too generic. Equipment identification or labeling in the field did not agree with the identification in the procedure.
A5	B2	C05	Ambiguous instructions/requirements	The instructions in the written communication were unclear, uncertain, or interpretable in more than one way. Different procedures related to the same task contained different requirements. There were conflicting or inconsistent requirements stated in different steps of the same procedure. Requirements were stated in different units.
A5	B2	C06	Typographical error	A typographical error in the written communication caused the event.
A5	B2	C07	Facts wrong/requirements not correct	Specific information in the written communication was incorrect. The written communication contained outdated requirements. The written communication did not reflect the current status of equipment.
A5	B2	C08	Incomplete/situation not covered	Details of the written communication were incomplete. Insufficient information was presented. The written communication did not address situations likely to occur during the completion of the procedure.
A5	B2	C09	Wrong revision used	The wrong revision of the written communication used.
A5	Subc B3	Written Communications Not Used		Written communication was not used to do the job. Written communication did not exist for the job. The written communication system was required to be used and was not just for training.
A5	B3	C01	Lack of written communication	Some form of written communication did not exist for the job task being performed.
A5	B3	C02	Not available or inconvenient for use	The written communication was not readily available. A copy of the written communication was not available in the designated file or rack. A master copy of the written communication was not available for reproductions. Use of the written communication was inconvenient because of working conditions (e.g., radiation areas, tight quarters, plastic suits).
A5	Subc B4	Verbal Communications LTA		The problem was caused by the transmission or receiving of information by voice or signal (e.g., face-to-face, telephone, and radio).
A5	B4	C01	Communication between workgroups LTA	Lack of communication between work groups contributed to the incident.
A5	B4	C02	Shift communication LTA	Lack of communication between management and the shifts, between employees and management, or communication between workers during the shift change contributed to the incident.
A5	B4	C03	Correct terminology not used	Standard or accepted terminology was not used; the communication could be interpreted in more than one way; a piece of equipment had two or more commonly used names or the terminology could apply to more than one item.
A5	B4	C04	Verification/repeat back not used	The communication error was caused by failure to repeat back a message to the sender for the purposes of verifying that the message was heard and understood correctly.
A5	B4	C05	Information sent but not understood	The message or instruction was misunderstood because of noise interference or the message was too long and should have either been shortened or should have been written.

Attachment 3 – Cause Codes

A5	B4	C06	Suspected problem not communicated to supervision	There was incorrect, incomplete, or an otherwise lack of communication between personnel and their supervision.
A5	B4	C07	No communication method available	A method or system did not exist for communicating the necessary message or information. The communication system was out of service or otherwise unavailable at the time of the incident.
Category A6			Training deficiency	An event or condition that could be traced to a lack of training or insufficient training to enable a person to perform a desired task adequately.
A6	Subc B1		No training provided	A lack of appropriate training. The task had not been identified for training.
A6	B1	C01	Decision not to train	The decision was made not to provide specific training on a task or training was only provided to some of the employees.
A6	B1	C02	Training requirements not identified	Training on the task was not part of the employee's training requirements. The necessary training had not been defined for the job description.
A6	B1	C03	Work incorrectly considered "skill-of-craft"	The work was not a skill that could be developed through job experience.
A6	Subc B2		Training Methods LTA	The correct training setting was not used; there was not enough practice or hands-on time allotted; testing did not adequately measure the employee's ability to perform the task, the task was not identified for refresher training; the training had inadequate instructors and facilities.
A6	B2	C01	Practice or "Hands-on" experience LTA	The on the job training did not provide opportunities to learn skills necessary to perform the job; there was insufficient OJT; there was inadequate preparation before performing the activity; the employee had not previously performed the task under direct supervision.
A6	B2	C02	Testing LTA	Testing did not cover all the knowledge and skills necessary to do the job. Testing did not adequately reflect the trainee's ability to perform the job.
A6	B2	C03	Refresher training LTA	Training updates were not performed; continuing training was not performed to keep employees equipped to perform non-routine tasks. The frequency of continuing training was inadequate. The frequency of refresher training was not sufficient to maintain the required knowledge and skills.
A6	B2	C04	Inadequate presentation	The qualifications for the instructor were inadequate; the qualification did not include all that is necessary to perform training on this task; the instructor who performed the training was not qualified on this task. The training equipment was inadequate. Simulators were not used. The equipment used in training was not like that used on the job.
A6	Subc B3		Training Material LTA	The training material content was inadequate; did not adequately address new work methods; did not address normal and abnormal working conditions; did not adequately address performance standards for the job.
A6	B3	C01	Training Objectives LTA	The objectives were not written to accurately represent the task analysis; they did not satisfy the needs identified in task analysis; did not cover all the requirements necessary to successfully complete the task.

Attachment 3 – Cause Codes

A6	B3	C02	Inadequate content	The training content did not address the objectives, did not identify the knowledge and skills required to perform the task or did not contain all the information necessary to perform the task.
A6	B3	C03	Training on new work methods LTA	Training was not provided when the work methods for this task were changed, training on procedure changes was not provided; training on the new equipment used to perform the task was not provided.
A6	B3	C04	Performance standards LTA	The requirements for performance were not stringent enough or did not address performing the task under normal, abnormal, and emergency conditions.
Category A7			Other Problem	The problem was caused by factors beyond the control of the organization such as natural phenomena or legacy issues.
A7	Subc B1	External Phenomena		Caused by factors not under the control of the reporting organization.
A7	B1	C01	Weather or ambient conditions LTA	Unusual weather conditions such as hurricanes, tornadoes, flooding, earthquake, and lightning.
A7	B1	C02	Power failure or transient	Loss of off-site or partial on-site power.
A7	B1	C03	External fire or explosion	Event outside the facility affects equipment systems or personnel inside the facility.
A7	B1	C04	Other natural phenomena LTA	Phenomena that could include animal intrusion.
A7	Subc B2	Radiological/Hazardous material problem		Problems related to radiological or hazardous material contamination that could not be attributed to any of the other causes.
A7	B2	C01	Legacy contamination	Radiological or hazardous material contamination attributed to past practices.
A7	B2	C02	Source unknown	Radiological or hazardous material contamination where the source cannot be reasonably determined.

LIST OF PROCESSES AND EQUIPMENT REVIEWED

WIPP #	Process/Equipment Description	Applicable to the Following Waste Streams/Groups of Waste Streams	Currently Approved by NMED	Currently Approved by Environmental Protection Agency
PREVIOUSLY APPROVED PROCESSES OR EQUIPMENT				
16VE1	Visual Examination Procedure: CCP-TP-113 Description – CH Characterization performed utilizing Visual Examination (VE) and Acceptable Knowledge (AK)	Soils/Gravel (S4000) Debris (S5000)	NO	YES
N/A	Quality Assurance Program	Solids (S3000) Soils/Gravel (S4000) Debris (S5000)	N/A	YES
NEW PROCESSES OR EQUIPMENT				
NONE				
DEACTIVATED PROCESSES OR EQUIPMENT				
NONE				

PROCEDURE REVISION MATRIX

Previous ORNL/CCP Annual Audit A-14-03

Current ORNL/CCP Audit A-14-29

No.	Procedure Number	Procedure Title	Revision During Last Annual Audit	Revision During Current Annual Audit	Brief Description of Procedure Changes
1.	CCP-PO-001	CCP Transuranic Waste Characterization Quality Assurance Project Plan (QAPjP)	R21	R21	
2.	CCP-PO-002	CCP Transuranic Waste Certification Plan	R27	R27	
3.	CCP-QP-002	CCP Training and Qualification Plan	R35	R37	<p>36 - Revised to incorporate changes in response to U.S. Environmental Protection Agency (EPA) Issue Tracking Form ORNL-CCP-CC-RTR-2014-02CR: adding a requirement for a written record for the Training Container, to be filled out by the operator for the review by the Cognizant Engineer (CE), and adding a place on the Training Container evaluation sheet for operator acknowledgement of counseling for any missed items. Also incorporated Standing Order CCP-SO-110.</p> <p>37 - In response to Carlsbad Field Office of the Department of Energy (CBFO) corrective active report (CAR) 14-030, revised the NOTE in Section 3.4 to clarify that the preferred method for determining an Subject Matter Expert (SME)/On-the-Job Training (OJT) candidate's education and experience is by reviewing the individual's resume, but whatever method is used must be explicitly stated in the documentation provided to Training by the site project manager (SPM). Also added a new Attachment 7 as a template for appointment letters to be issued by the SPM, which may be customized as necessary.</p>
4.	CCP-QP-005	CCP TRU Nonconforming Item Reporting and Control	R23	R24	<p>24 - Revised determination of recurring condition; deleted all references to CCP-QP-029 and internal Corrective Action Reports (CARs) which was obsolete and</p>

PROCEDURE REVISION MATRIX

Previous ORNL/CCP Annual Audit A-14-03

Current ORNL/CCP Audit A-14-29

No.	Procedure Number	Procedure Title	Revision During Last Annual Audit	Revision During Current Annual Audit	Brief Description of Procedure Changes
					replaced with WP 15-GM1002; replaced reference Carlsbad Field Office (CBFO) Quality Assurance Program Description (QAPD) with Nuclear Waste Partnership (NWP) QAPD; rearranged 4.1.6, 4.2.10 and 4.2.11 for better chronological order; revised definitions "Repair" and "Rework"; corrected various editorial mistakes.
5.	CCP-QP-008	CCP Records Management	R21	R22	22 - Revised to include steps for the Record Index Module, addresses editorial guidelines for records, and to update records section.
6.	CCP-QP-021	CCP Surveillance Program	R9	R10	10 - Revised to address Carlsbad Field Office (CBFO) Corrective Action Reports (CARs) 14-034 and 14-035. Also added WP 13-QA.04, <i>Quality Assurance Department Administrative Program</i> , as an acceptable procedure for qualification of surveillance personnel.
7.	CCP-QP-028	CCP Records Filing, Inventorying, Scheduling and Dispositioning	R15	R15	
8.	CCP-TP-113	CCP Standard Contact-Handled Waste Visual Examination	R18	R18	
9.	WP 13-QA.03	Quality Assurance Independent Assessment Program	R22	R23	23 - Changed "04-IM1000" to "15-GM1002" throughout. <ul style="list-style-type: none"> • Updated references table. • Revised Introduction section 1.0 concerning Record Inventory and Disposition Schedules. • Deleted in section 2.0, third bullet, approval of the assessment schedules. • Revised bullet in subsection 4.1 to be consistent with the scope and frequency of audits performed in accordance with the contractor assurance system. • Modified in subsection 4.1 the last bullet.

PROCEDURE REVISION MATRIX

Previous ORNL/CCP Annual Audit A-14-03

Current ORNL/CCP Audit A-14-29

No.	Procedure Number	Procedure Title	Revision During Last Annual Audit	Revision During Current Annual Audit	Brief Description of Procedure Changes
					<ul style="list-style-type: none"> • Deleted in subsection 4.2, bullets three, five and seven. • Modified subsection 4.3 for clarity. • Added in section 6.0, "internal" in bullet four for clarity. • Added in section 8.0 "will be tracked in commitment tracking system (CTS)." • Removed Attachment 3, Example of QA Fiscal Year External and Internal Audit Schedules. • Added in attachment 5, bullet "Initiate WIPP Form for CDA." • Removed in attachment 7, "CTS Coordinator."
10.	WP 15-GM1002	Issues Management Processing of WIPP Forms	R1	R2	2 - Added Note above substep 3.3.10 regarding the IMPS. <ul style="list-style-type: none"> • Revised substep 3.3.10[B] for instructions if an issue is determined to be a SCAQ. • Added substep 3.3.10[C] regarding if an issue is NTS reportable. • Deleted substeps 4.1.2[B], 4.1.3, 4.1.4[B], 4.1.6, and 4.1.7 regarding instructions to obtain signatures. • Changed in Note above step 4.2, "CARs" to "WIPP Forms." • Revised step 5.1.3 to correct the method of providing objective evidence for CAP closure. • Minor editorial changes throughout.