



Department of Energy
 Carlsbad Field Office
 P. O. Box 3090
 Carlsbad, New Mexico 88221
 NOV - 7 2017

ENTERED



Mr. Ronnie Lee, Manager
 Central Characterization Program
 National TRU Program
 P.O. Box 2078
 Carlsbad, NM 88221-2078

Subject: Waste Stream LA-OS-00-01.001 Release Approval per CBFO MP 4.15

Dear Mr. Lee:

Per the Carlsbad Field Office (CBFO) Management Procedure 4.15, Section 5.3, the CBFO has verified waste stream LA-OS-00-01.001 meets the requirements of DOE/CBFO 16-3568, Plan for Validating Currently Certified Waste. The CBFO, therefore, authorizes Central Characterization Program to use waste stream LA-OS-00-01.001 in the Waste Data System (WDS) and to enter containers into the WDS, using approved procedures, for shipment to and disposal at the Waste Isolation Pilot Plant (WIPP).

This letter and supporting documentation fulfills the CBFO requirements of the WIPP Documented Safety Analysis, Rev 5.b, Chapter 18.8.

If you have any questions, please contact me at (575) 234-7313.

J. R. Stroble, Director
 CBFO National TRU Program
 Compliance Division

Jeffrey Carswell,
 Carlsbad Field Office STSM

Attachments (2):
 MP 4.15
 Form 4.15-3 for LA-OS-00-01.001

cc: w/attachments

G. Basabilvazo, CBFO	*ED	S. Hunt, CBFO	ED
G. Birge, CBFO	ED	M. Ramirez, NWP	ED
M. Brown, CBFO	ED	M. F. Sharif, NWP	ED
N. Castaneda, CBFO	ED	T. Greenwood, NWP	ED
C. Fesmire, CBFO	ED	Site Documents	ED
W. Mackie, CBFO	ED	WIPP Operating Record	ED
D. Miehl, CBFO	ED	CBFO M&RC	
D. Standiford, CBFO	ED	*ED denotes electronic distribution	



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

MANAGEMENT PROCEDURE

CBFO MP 4.15, Rev. 2

Effective: March 29, 2017

SUBJECT: REVIEW OF TRU WASTE ACCEPTABLE KNOWLEDGE DOCUMENTS

Procedure Approver: //signature on file//

Date: March 29, 2017

J. R. Stroble

CHANGE HISTORY

REVISION:	REASON FOR REVISION:
0	Initial Issue.
1	<ul style="list-style-type: none">Revised to reflect Organizational Chart Effective 08/07/2016Added 5.2.9, 6.3 and Attachment III
2	<ul style="list-style-type: none">Revised to delineate the review of different AK documentsExtensive revisions were made to the procedure; therefore, no change bars were used

1.0 PURPOSE

The Carlsbad Field Office (CBFO) Office of the National TRU Program (NTP) will provide oversight of the acceptable knowledge (AK) process including the enhanced AK process by performing a thorough review of the documentation produced by certified waste generator sites to meet Programmatic AK requirements. This review includes review of chemical compatibility evaluations and other enhanced AK products. This will be accomplished by review of AK reports and selected source documents used to produce those reports. The NTP will target the review to those areas that describe waste handling and management processes that affect waste disposal.

2.0 SCOPE

This procedure specifies the methods for the processing of new or revised AK documents. AK document review will include review of AK reports, evaluation products (such as defense determinations and chemical compatibility evaluations), and source documents used by the waste generator sites to meet Waste Isolation Pilot Plant (WIPP) Waste Analysis Plan (WAP), remote-handled (RH) transuranic (TRU) Waste Characterization Program Implementation Plan (WCPIP), and TRU Waste Acceptance Criteria (WAC) for the WIPP requirements to provide a detailed characterization of waste streams. The review will ensure that explanations provided in the report contain sufficient detail to explain characterization determinations and that such determinations are sufficiently supported by the necessary AK source documentation. The areas that could be selected for review include, but are not limited to:

- Acceptable Knowledge Summary Reports;
- Defense Determinations;
- Chemical Compatibility Evaluations (CCE);
- Basis of Knowledge (BoK);
- Acceptable Knowledge Assessments;
- Interface Waste Management Documents List.

Source documents selected by the reviewer that are cited to provide the definitive proof for statements made in AK reports or AK products, such as chemical compatibility evaluations, will be evaluated to ensure they support the factual statements made in the report. The reviewer will look for errors and omissions. Through this oversight, the NTP can be assured that the material presented in AK documentation accurately describes the waste form and characteristics of the waste offered for disposal at the WIPP.

All waste containers in the complex certified prior to Revision 8 of the WIPP WAC will be verified to ensure compliance with Revision 8.

This procedure supersedes CBFO Management Procedure (MP) 4.15, Revision 1, *The Processing of TRU Waste Acceptable Knowledge Summary Reports*.

3.0 **REFERENCES AND DEFINITIONS**

3.1 References

- 3.1.1 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
- 3.1.2 WIPP Hazardous Waste Facility Permit (HWFP), NM 489013088-TSDF
- 3.1.3 DOE Order (O) 442.2, *Differing Professional Opinions for Technical Issues Involving Environmental, Safety and Health Technical Concerns*
- 3.1.4 Method 1040, Revision 0, February 2007, Final Update IV to the Third Edition of the *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*, EPA publication SW-846
- 3.1.5 DOE/WIPP-02-3122, *Transuranic Waste Acceptance Criteria for the Waste Isolation Pilot Plant*
- 3.1.6 DOE/WIPP-02-3214, *Remote-Handled TRU Waste Characterization Program Implementation Plan*
- 3.1.7 DOE/WIPP-07-3372, *Waste Isolation Pilot Plant Documented Safety Analysis*
- 3.1.8 DOE/WIPP-17-3585, *Basis of Knowledge for Evaluating and Treating Oxidizing Chemicals in TRU Waste in the Waste Handling Building for Acceptance at the Waste Isolation Pilot Plant*
- 3.1.9 DOE/CBFO-16-3568, *Plan for Validating Currently Certified Waste*
- 3.1.10 CBFO MP 4.10, *The Processing of TRU Waste Site Documents*

- 3.1.11 CBFO MP 4.14, *CBFO Review of Acceptable Knowledge Sufficiency Determination Requests*
- 3.1.12 CBFO MP 5.3, *Correspondence Standards*
- 3.1.13 CBFO MP 5.11, *CBFO Approval for Emplacement of Waste Received up to February 14, 2014*
- 3.1.14 CBFO MP 10.9, *Surveillance, Operational Awareness, and Issues Management.*
- 3.2 Definitions
 - 3.2.1 **Activity Tracking System** – The National TRU Program's (NTP's) activity tracking system (ATS) records correspondence and documents submitted to the Site Documents for review.
 - 3.2.2 **NTP Review Coordinator** – The NTP point of contact for managing the review of AK products as defined in Section 4.0.
 - 3.2.3 **Site Documents** - The group that administers the document review process for the CBFO NTP.
 - 3.2.4 **Currently Certified Waste** - Waste certified prior to WAC Revision 8.0, implementation date of July 5, 2016.

4.0 **RESPONSIBILITIES**

- 4.1 Assistant Manager, Office of the National TRU Program
 - Direct the AK review process.
- 4.2 Director, NTP Compliance Division
 - 4.2.1 Ensure comments made by reviewers reflect NTP policy and interpretation.
 - 4.2.2 Ensure that a review and approval of AK documents is performed as described in this procedure.
 - 4.2.3 Assign reviewers responsible for conducting AK document reviews, and verify the individual has the appropriate training (as defined in Attachment IV, Example of CBFO Form 4.15-4). Designate a reviewer to complete CBFO Form 4.15-2 and CBFO Form 4.15-3 (See Attachment II and III examples) checklists, according to the AK document under review.
- 4.3 Senior Technical Safety Manager (STSM)
 - Concur with approvals from this procedure.
- 4.4 BoK Review Board
 - Review Basis of Knowledge testing plan, treatment plan, testing results, or technical justification presented by the Certified Program for approval by the CBFO.
- 4.5 TRU Site Technical Review Coordinator
 - 4.5.1 Ensure performance of the review process.

- 4.5.2 Ensure comments made by reviewers reflect CBFO procedures and programmatic requirements.
- 4.5.3 Serve as the NTP Review Coordinator for AK Summary Report, Chemical Compatibility Evaluation and Basis of Knowledge Determination reviews.
- 4.6 TRU Waste Characterization Manager
 - 4.6.1 Ensure performance of the review process.
 - 4.6.2 Ensure comments made by reviewers reflect CBFO procedures and programmatic requirements.
 - 4.6.3 Serve as the NTP Review Coordinator for Defense Determination reviews.
- 4.7 TRU Waste Certification Manager
 - 4.7.1 Conduct periodic oversight of Certified Program waste management and packaging processes described in the plans, procedures, or reports identified on the Interface Waste Management Document List, as provided by the Certified Program for a particular waste stream. Document the results of the oversight following the process described in CBFO MP 10.9, *Surveillance, Operational Awareness, and Issues Management*.
 - 4.7.2 Identify issues and monitor their resolution following the process described in CBFO MP 10.9, *Surveillance, Operational Awareness, and Issues Management*.
- 4.8 CBFO Safety Basis Approval Authority (SBAA)

Review and approve revisions to this procedure to verify that the proposed changes do not impact the WIPP Safety Basis.
- 4.9 Site Documents
 - 4.9.1 Receive AK documents requiring NTP review.
 - 4.9.2 Track the AK document review cycle through the Activity Tracking System (ATS).
 - 4.9.3 Assemble comments submitted on AK Document Review Records (DRR) (CBFO Form 4.15-1; See Attachment I example) and generate a consolidated DRR.
 - 4.9.4 Facilitate communication between the CBFO and the generator sites regarding AK document reviews.
- 4.10 AK Document Reviewer
 - 4.10.1 Complete CBFO Form 4.15-4 (See Attachment IV example).
 - 4.10.2 Perform reviews, as requested.

5.0 PROCEDURE

5.1 Preparing for the Review

5.1.1 Site Documents

- A. When a Certified Program submits an AK document for review, log the submittal in the ATS.
- B. Notify the NTP Compliance Division Director of the need for a review.

5.1.2 NTP Compliance Division Director

NOTE: NTP Compliance Division Director will designate reviewers to complete CBFO Forms 4.15-2 and 4.15-3 (See Attachments II and III examples), as appropriate. All other reviewers will provide comments on the DRR (CBFO Form 4.15-1; See Attachment I example).

- A. Determine the type of review required. The types of reviews are:
 - AK Summary Report
 - Defense Determination
 - Chemical Compatibility Evaluation
 - Basis of Knowledge Determination
- B. Designate reviewers required to complete the review and which reviewers will complete CBFO Forms 4.15-2 and CBFO Forms 4.15-3 (See Attachment II and III examples), depending on the type of AK document.
- C. Inform Site Documents via e-mail of the type of review, the designated reviewers, and to prepare for the review.

5.1.3 Site Documents

- A. Request the Certified Program responsible for the applicable site to provide AK materials, such as AK reports and source documents, necessary to conduct the review (i.e., AK Summary Reports are necessary to review Chemical Compatibility Evaluations, and source documents are necessary to review AK Summary Reports). Electronic copies are preferred.
- B. Prepare an AK DRR (CBFO Form 4-15-1; See Attachment I example) for the review.
- C. Transmit the request for review, the document to be reviewed, and the necessary attachments to the designated reviewer.
- D. Log the transmittal in the ATS.
- E. During the review, the AK Document reviewer may request additional source documents used to substantiate determinations. Request the Certified Program responsible for that site to provide the additional source documents (electronic copies are preferred) and forward to the AK Document Reviewer.
- F. Log all source documents received.

5.1.4 AK Document Reviewers

- A. During the review, maintain a list of source documents used to substantiate determinations that will be evaluated further.
- B. Forward the list of source documents to Site Documents, and request the documents be collected from the responsible Certified Program.
- C. When documents have been received, complete the review using the documents provided.
- D. Include comments regarding the adequacy or accuracy of source documents on the AK DRR (CBFO Form 4.15-1; See Attachment I example). List source documents reviewed on the DRR.

5.2 Conducting AK Document Reviews

The following reviews are to be performed independently, and it is not intended to imply these Sections must be performed sequentially.

5.2.1 AK Summary Report Review

- A. Select a set of source documents and ensure the statements made in the document by the Certified Program are supported by the cited source documents.
- B. Review the AK document for internal consistency in descriptions of waste generating locations, processes, and waste forms.
- C. Perform a technical review for adequacy, completeness, correctness, and inclusion of and compliance with requirements referenced in Section 3.1.
 - If a defense determination is part of the documentation under review, review the defense determination and evaluate the logic provided for the determination. Include comments regarding the adequacy of the defense determination conclusion on the DRR.
 - If the review includes the determination that the waste is not high-level waste or spent nuclear fuel (as these wastes are prohibited for disposal), review the high-level waste and spent nuclear fuel determinations and evaluate the logic provided for the determination. Include comments regarding the adequacy of the high-level waste and spent nuclear fuel determination conclusion on the DRR.
 - Review the description of the waste generating processes, as necessary.
 - Review the description of the types of waste generated, including treatment processes, as necessary.
 - Review the hazardous waste determination discussions.
- D. Identify comments, or state that there are no comments on the AK DRR (CBFO Form 4.15-1; See Attachment I example).
- E. Go to Section 5.4.

5.2.2 Defense Determination Review

NOTE: Defense Determinations may be submitted independently of an AK Summary Report.

- A. Review the "Transuranic Waste Defense Determination Approval Form" as provided by the Certified Program for a particular waste stream, to ensure site approvals have been obtained.
- B. Evaluate the logic provided that establishes the defense nature of the waste stream.
- C. Review source documents to ensure the statements made in the defense determination are supported by the evidence.
- D. Review the Defense Determination cover sheet to ensure the determination has been agreed to by the site U.S. Department of Energy (DOE) representative.
- E. Identify the need for CBFO Counsel and the CBFO Manager concurrence.
- F. Identify comments, or state that there are no comments on the AK DRR (CBFO Form 4.15-1; See Attachment I example).
- G. Go to Section 5.4.

5.2.3 Chemical Compatibility Evaluation Review

- A. Review the chemical compatibility evaluation memorandum to ensure that the technical assumptions cited in the evaluation are correct.
- B. Review the chemical compatibility evaluation memorandum to ensure that assumptions made are credible and defensible.
- C. Review the chemical compatibility evaluation memorandum to ensure that the Reactivity Group Numbers are correctly assigned, correctly associated with incompatible groups, and correctly dispositioned.
- D. Ensure that sorbents that contain neutralizing agents (such as NEUTRASORB or those containing organic acids) are compatible between both the sorbent and the neutralizing agent with the waste.
- E. Identify comments, or state that there are no comments on the AK DRR (CBFO Form 4.15-1; See Attachment I example).
- F. IF assigned the Chemical Compatibility Evaluation Checklist (CBFO Form 4.15-2; See Attachment II example), THEN complete the form and include it with the AK DRR (CBFO Form 4.15-1; See Attachment I example).
- G. Go to Section 5.4.

5.2.4 Basis of Knowledge Review

- A. Review the Basis of Knowledge determination to ensure the Certified Program correctly identified or ruled out the presence of oxidizers. Waste may only be approved if:

- It is clearly documented in a CCE by a WIPP Certified Program that all of the waste containers in consideration do not contain, or have the potential to contain any oxidizers, then that waste is not subject to the Basis of Knowledge (does not require treatment, testing for oxidizers, or a technical justification), or
 - It is clearly documented by a WIPP Certified Program that all of the waste containers in consideration possibly had oxidizers at one time or the potential for oxidizers at one time, but have been rendered no longer an oxidizer, then that waste is not subject to the Basis of Knowledge (does not require treatment or testing for oxidizers), or
- B. IF the waste does not meet "A" above, THEN forward the testing plan, the treatment plan, the testing results, OR the technical justification to the NTP Review Manager. The NTP Review Manager will forward the BoK determination to the BoK Review Board for review and approval.

Upon receipt of the BoK Review Board results, the NTP Review Manager will record approval or comments from the BoK Review Board on an AK DRR (CBFO Form 4.15-1; See Attachment I example) and attach the BoK Review Board correspondence documenting approval or comments.

- C. Go to Section 5.4.

5.3 Currently Certified Waste

Prior to the NTP Compliance Division Director providing approval for removal of the hold on waste in the Waste Data System (WDS) the following actions will be performed. These actions satisfy the requirements of Section 5.3 of the *CBFO Plan for Validating Currently Certified Waste* (DOE/CBFO-16-3568).

- 5.3.1 For currently certified waste, complete the Currently Certified Waste Checklist (CBFO Form 4.15-3; See Attachment III example). If the Certified Program is seeking approval for a subpopulation of a waste stream, indicate this on the form.
- 5.3.2 If any answers in CBFO Form 4.15-3 are "no," then contact the NTP Compliance Division Director. The NTP Compliance Division Director will issue a letter, including the Currently Certified Waste Checklist (CBFO Form 4.15-3) to the Certified Program, notifying them of the results of the review.
- 5.3.3 If all answers in CBFO Form 4.15-3 are "yes," then Site Documents will prepare an approval letter authorizing the Certified Program to use the waste stream in the WDS and to enter containers into the WDS for shipment to and disposal at the WIPP.

5.4 Comment Resolution

- 5.4.1 AK Document Reviewers will ensure review comments made on the DRR are clear and relevant. When the AK document review is completed, then the AK Document Reviewer will provide the completed AK DRR (CBFO Form 4.15-1), and CBFO Form 4.15-2 and CBFO Form 4.15-3 (if applicable) to Site Documents for comment resolution.

NOTE: NTP Compliance Division Director will designate reviewers to complete CBFO Forms 4.15-2 and 4.15-3 (See Attachments II and III examples), depending on the type of AK product under review. All other reviewers will provide comments on the AK DRR (CBFO Form 4.15-1; See Attachment I example).

- 5.4.2 Site Documents will forward completed AK DRRs (CBFO Form 4.15-1) and checklist(s) in CBFO Forms 4.15-2 and 4.15-3 (if applicable) to the NTP Review Manager for review. The NTP Review Manager will ensure the comments are clear and relevant, and will direct the AK Document Reviewer to revised the AK DRR (CBFO Form 4.15-1) if necessary.
- 5.4.3 The NTP Review Manager will instruct Site Documents to forward the AK DRRs to the Certified Program for resolution.

NOTE: The TRU Site Technical Review Coordinator will serve as the NTP Review Manager for the review of AK Summary Documents, Chemical Compatibility Evaluations, and Basis of Knowledge Determinations. The TRU Waste Characterization Manager will serve as the NTP Review Manager for Defense Determinations.

- 5.4.4 Site Documents will log receipt of the AK DRR from each AK Document Reviewer and transmit the AK DRRs to the Certified Program for comment response.
- 5.4.5 Site Documents will log the receipt of the Certified Program provided responses, and will transmit the responses to the assigned AK Document Reviewers for comment resolution. The AK Document Reviewer will evaluate responses and any new material documented on the AK DRR (CBFO Form 4.15-1) against the changes made to the document. IF the response is acceptable, THEN mark the "Accept" column. IF the response is not acceptable, THEN mark the "Reject" column and provide an explanation for the rejection under the original comment. Return the AK DRR (CBFO Form 4.15-1) to Site Documents.
- 5.4.6 Site Documents will log return of the DRR and the number of responses rejected, if any, in the ATS. If the AK Document Reviewer has rejected the Certified Program's response to a comment, then Site Documents will forward the AK DRR with the rejected responses to the NTP Review Manager for review and concurrence. The NTP Manager will either concur with the rejection or accept the rejected response for the NTP, and forward to Site Documents for transmittal to the Certified Program for comment resolution, as necessary.

NOTE: An interactive review may be necessary to complete the comment resolution process.

NOTE: There may be cases where comment resolution is not reached with an external organization. After the CBFO Manager/Deputy Manager is engaged, the only resolution may be to document the dissenting opinion for the record. The Differing Professional Opinion process, per DOE O 442.2, is an option that can be used for comment disputes with external organizations.

- 5.4.7 When all comments have been resolved, Site Documents will transmit the AK DRRs to the NTP Review Manager for signature. Site Documents will log final signature of the AK DRRs in the ATS.

5.5 Finalizing the Review of AK Documents

- 5.5.1 AK Summary Report, Chemical Compatibility Evaluation, or Basis of Knowledge Determination Reviews
- A. Site Documents will generate the approval letter for signature by the NTP Compliance Division Director and Safety Basis Approval Authority.
- B. Site Documents will transmit the approval letter, along with the completed AK DRR (CBFO Form 4.15-1) and completed checklist(s) (CBFO Forms 4.15-2 or

4.15-3), as applicable, to the NTP Compliance Division Director and the Safety Basis Approval Authority for approval, and will log the transmittal in the ATS.

- C. Site Documents will log the approval in the ATS and will transmit the letter to the responsible Certified Program.

5.5.2 Defense Determination

- A. Site Documents will transmit to Defense Determination to the TRU Waste Characterization Manager, along with the completed AK DRR (CBFO Form 4.15-1), and will log the transmittal in the ATS.

- B. The TRU Waste Characterization Manager will submit the Defense Determination to the CBFO Manager with recommendation for approval or denial.

- C. Site Documents will log the approval/denial in the ATS and will transmit Defense Determination to the responsible Certified Program.

5.6 NTP Waste Stream Release Approval

5.6.1 NTP Compliance Division Director

- A. Verify that the AK report for the subject waste stream has been reviewed and approved.

- B. Verify that the Chemical Compatibility Evaluation memo for the subject waste stream has been reviewed and concurrence letter transmitted to the Certified Program.

- C. Verify that the Basis of Knowledge determination has been reviewed, including testing plan and treatment plans if necessary, and concurrence letter transmitted to the Certified Program.

- D. Verify that the Interface Waste Management Document List is in place, if required.

- E. Verify that the Acceptable Knowledge Assessment has been completed for waste streams with currently certified waste, if required.

- F. Request Site Documents to prepare a release letter for the waste stream. Letter will state that CBFO has verified the items stated above (steps A – E of Section 5.6.1).

5.6.2 Site Documents will log the request to generate release letter in the ATS, generate the approval letter for NTP Compliance Division Director and STSM and submit for "Blue Sheet" concurrence, as applicable, per CBFO MP 5.3, *Correspondence Standards*.

5.6.3 After the letter has completed the "Blue Sheet" concurrence process, the NTP Compliance Division Director and STSM will sign the letter of approval for the release of the waste stream.

5.6.4 Site Documents will log approval of the release letter in the ATS and transmit the release letter to the responsible Certified Program.

5.7 Routine Oversight of Acceptable Knowledge Assessment and Interface Waste Management Document List by the NTP Waste Certification Manager

5.7.1 Interface Waste Management Document List

- A. Periodically (at least once per quarter) select an Interface Waste Management Document List for a waste stream review.
- B. Review the Interface Waste Management Document List to ensure it encompasses all of the processes generating, treating, or repackaging TRU waste for the subject waste stream.
- C. Review the Interface Waste Management Document List against:
 - Information provided by the Site at Corporate Board Meetings, Site status calls, NTP communications with the site, NTP TRU Waste Certification Manager understanding of site activities, etc., regarding waste generation, treatment, repackaging, and packaging operations at the site.
 - Current waste generation, treatment, repackaging and packaging operations at the site.
 - Information collected during Generator Site Technical Reviews at the DOE site.
- D. Document oversight following the CBFO MP 10.9, including any identified issues.

5.7.2 Acceptable Knowledge Assessment

- A. Periodically (at least once per quarter) select an Acceptable Knowledge Assessment for review.
- B. Review the Acceptable Knowledge Assessment for completeness. Verify the Acceptable Knowledge Assessment memorandum contains the following, as applicable:
 - Waste stream summary (brief description of the waste stream and generating activities),
 - Historic waste management practices,
 - Current waste management practices,
 - Waste remediation and repackaging practices,
 - Absorbent, immobilization, and neutralization reagents,
 - Container specific documentation collected and reviewed,
 - New and revised AK source documents,
 - AKA conclusions, assumptions, and limitations, and
 - List of containers bounded by the evaluation.

- C. Select a subset of the containers identified in the Acceptable Knowledge Assessment and determine if those containers match the description and conclusion in the assessment.
- D. Document oversight following the CBFO MP 10.9, including any identified issues.

6.0 RECORDS

Records generated by implementing this procedure will be handled in compliance with requirements identified in current records management procedures and consist of the following:

- 6.1 Completed and signed Acceptable Knowledge Document Review Records (CBFO Form 4.15-1).
- 6.2 Completed and signed Chemical Compatibility Evaluation Checklists (CBFO Form 4.15-2).
- 6.3 Completed and signed Currently Certified Waste Checklist (CBFO Form 4.15-3).
- 6.4 Approval letters for Acceptable Knowledge reports/documents including, as applicable, emails requesting "blue sheet" concurrence and "blue sheet" concurrence approval.
- 6.5 Concurrence letters for the Chemical Compatibility Evaluation memos, Basis of Knowledge determination, Basis of Knowledge testing plan and Basis of Knowledge treatment plan including, as applicable, emails requesting "blue sheet" concurrence review and "blue sheet" concurrence approval.
- 6.6 BoK Review Board correspondence documenting approval or comments.
- 6.7 Waste stream release letters and emails requesting blue sheet concurrence, blue sheet concurrence approval.
- 6.8 Completed and signed AK Document Reviewer Training (CBFO Form 4.15-4).

7.0 ATTACHMENTS

- Attachment I. Example of CBFO Form 4.15-1, *CBFO Acceptable Knowledge Document Review Record*
- Attachment II. Example of CBFO Form 4.15-2, *Chemical Compatibility Evaluation Checklist*
- Attachment III. Example of CBFO Form 4.15-3, *Currently Certified Waste Checklist*
- Attachment IV. Example of CBFO Form 4.15-4, *AK Document Reviewer Training*

EXAMPLE

CARLSBAD FIELD OFFICE						
ACCEPTABLE KNOWLEDGE DOCUMENT REVIEW RECORD						
SITE:						
DOCUMENT TITLE:						
DOCUMENT NUMBER AND REVISION:						
TYPE OF REVIEW: Technical						
ASSIGNED REVIEWER:						
FORWARD RESPONSE TO: Site.Documents@wipp.ws						
#	PAGE	SECTION	COMMENT (Cite Rqmt, if applicable)	RESPONSE	ACC	REJ
1.						
2.						
3.						
4.						
5.						
6.						
7.			END OF COMMENTS			

COMMENT RESOLUTION APPROVED:

NTP Signature

Date

EXAMPLE**CHEMICAL COMPATIBILITY EVALUATION CHECKLIST**

Site: _____

CCEM Name: _____

No.	Criterion	Result/Comments
1	Has the Certified Program performed a satisfactory review of the CCEM?	
2	Does the CCEM match the current revision of the AK Summary Report?	
3	Do the chemicals listed in the CCEM match those listed in the AK Summary Report or is there a revision pending to include those that are not listed?	
4	Are the chemicals in the CCEM assigned to the correct RGNs?	
5	Are those chemicals assigned "NA" non-reactive?	
6	Do the assigned RGNs match those listed in the summarized reactions table and the binary compatibility chart?	
7	Are the assumptions used to dismiss chemicals from consideration reasonable?	
8	Are the assumptions used to assign chemical concentrations or quantities reasonable?	
9	Are there new AK source documents generated to supplement the CCEM? If so, request and review them as necessary.	
10	Are the compatibility conclusions consistent with the RGN assignment and assumptions (no reaction or the reaction is not significant)?	
11	Do the compatibility conclusions justify that the waste stream is incapable of initiating an unexpected or incompatible hazardous reaction?	

Approval:

Print and Sign_____
Date

STSM:

Print and Sign_____
Date

EXAMPLE

CURRENTLY CERTIFIED WASTE CHECKLIST

Site: _____

Waste Stream _____

No.	Criterion	Yes/No	Objective Evidence Reviewed
1	Has the Certified Program implemented an enhanced AK process including an enhanced chemical compatibility evaluation for the waste streams, or waste stream sub-populations?		
2	Has the Certified Program implemented the Basis of Knowledge document in the AK process for evaluating oxidizing chemicals in TRU waste streams to determine acceptability or need for treatment?		
3	Did CBFO concur with enhanced chemical compatibility evaluation and implementation of the Basis of Knowledge for the evaluated waste stream?		
4	Have the WIPP M&O Contractor Payload Engineers evaluated TRUCON codes to ensure compliance with the enhanced chemical compatibility evaluation?		
5	Has the WIPP M&O Contractor implemented additional checks in the WDS for each container before those containers can be used to populate payloads in WDS?		
6	Did the WIPP M&O Contractor obtain written approval from CBFO prior to release of waste streams for shipment?		
7	Has the WIPP M&O Contractor verified each container requested is part of a CBFO-approved waste stream and is it authorized for shipment in WDS?		
8	Certified Program implemented an AKA and/or IWMDL as appropriate.		

Approval:

Print and Sign

Date

STSM:

Print and Sign

Date

EXAMPLE

AK Document Reviewer Training

AK Document Reviewer: _____
 Print Name

AK Document Reviewers shall read the following documents:

Document Title
Hazardous Waste Permit NM4890139088-TSDF, WIPP Waste Analysis Plan (WAP)
DOE/WIPP-02-3122, Transuranic Waste Acceptance Criteria for the Waste Isolation Pilot Plant (WAC)
DOE/WIPP-02-3214, Remote-Handled TRU Waste Characterization Program Implementation Plan (WCPIP)
DOE/WIPP-17-3585, Basis of Knowledge for Evaluating and Treating Oxidizing Chemicals in TRU Waste in the Waste Handling Building for Acceptance at the Waste Isolation Pilot Plant
DOE/CBFO-16-3568, Plan for Validating Currently Certified Waste
CBFO MP 4.10, The Processing of TRU Waste Site Documents
CBFO MP 4.14, CBFO Review of Acceptable Knowledge Sufficiency Determination Requests
CBFO MP 4.15, Review of TRU Waste Acceptable Knowledge Documents
CBFO MP 5.11, CBFO Approval for Emplacement of Waste Received up to February 14, 2014
CBFO MP 10.9, Surveillance, Operational Awareness, and Issues Management

By signing this form, I confirm that I have read and understand the content of the above listed documents.

 AK Document Reviewer Signature

 Date

I have reviewed the information provided above, and have determined the individual has the appropriate training to serve as an AK Document reviewer.

 NTP Compliance Division Director Signature

 Date

March 2017

CURRENTLY CERTIFIED WASTE CHECKLIST

Site: LANL-CCP

Waste Stream LA-OS-00-01.001 Containers at LANL

No.	Criterion	Yes/No	Objective Evidence Reviewed
1	Has the Certified Program implemented an enhanced AK process including an enhanced chemical compatibility evaluation for the waste streams, or waste stream sub-populations?	YES	Letter CBFO:ONTP:NCD:JRS:PG:17-2350:UFC 5900.00 dated October 31, 2017, <i>Concurrence and Approval for Chemical Compatibility Evaluation Memorandum for Waste Stream LA-OS-00-01.001, Revision 0 (containers stored at LANL)</i>
2	Has the Certified Program implemented the Basis of Knowledge document in the AK process for evaluating oxidizing chemicals in TRU waste streams to determine acceptability or need for treatment?	YES	CCP Document Services Technical Editor, Fabian Ybarra email dated October 31, 2017
3	Did CBFO concur with enhanced chemical compatibility evaluation And implementation of the Basis of Knowledge for the evaluated waste stream	YES	a) See the approval for the CCE in checklist No. 1 above. Letter CBFO:ONTP:NCD:JRS:PG:17-2350:UFC 5900.00 dated October 31, 2017, <i>Concurrence and Approval for Chemical Compatibility Evaluation Memorandum for Waste Stream LA-00-01.001, Revision 0 (containers stored at LANL)</i> b) Letter CBFO:ONTP:NCD:JRS:PG:17-2358:UFC 5900.00, dated November 7, 2017 (the letter this checklist is attached to)
4	Have the WIPP M&O Contractor Payload Engineers evaluated TRUCON codes to ensure compliance with the enhanced chemical compatibility evaluation?	YES	CBFO Memorandum CBFO:OTNP:NOD:JRS:17-2364:UFC 5822.00, Issue and Implementation of DOENWIPP 01-3194, Rev 58, <i>CH-TRU Waste Content Codes (CH-TRUCON)</i> dated November 6, 2017
5	Has the WIPP M&O Contractor implemented additional checks in the WDS for each container before those containers can be used to populate payloads in WDS?	YES	CBFO Surveillances: S-17-07, Nuclear Waste Partnership LLC Waste Data System, CBFO:OQA:DSM:BA:17-1103:UFC 2300.00, and S-17-32, Readiness to Remove "Read Only" Controls from WDS, CBFO:OQA:MRB:BA:17-1104:UFC 2300.00, and S-17-34, Transportation Authorization for the LANL CCP Transuranic Waste Stored at (WCS), CBFO:OQA:MRB:BA:17-1158:UFC 2300.00.
6	Did the WIPP M&O Contractor obtain written approval from CBFO prior to release of waste streams for shipment?	YES	Letter CBFO:ONTP:NCD:JRS:PG:17-2358:UFC 5900.00, dated November 7, 2017 (the letter this checklist is attached to)
7	Has the WIPP M&O Contractor verified each container requested is part of a CBFO-approved waste stream and is it authorized for shipment in WDS?	YES	See the response to checklist No. 5 above
8	Certified Program implemented an AKA and/or IWMDL as appropriate.	YES	See the response to checklist No. 5 above

Approval:

J.R. STROBLE J.R. Stroble
Print and Sign

11-7-17
Date

STSM:

J. M. CANNELL J.M. Cannell
Print and Sign

11/7/17
Date