



ENTERED

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



MAR - 1 2013

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

Subject: Review of Idaho National Laboratory - Central Characterization Project Waste Stream Profile Form Number ID-RF-S3114, Revision 1

Dear Mr. Kieling:

The Department of Energy, Carlsbad Field Office has approved the Waste Stream Profile Form (WSPF) Number ID-RF-S3114, Revision 1, *Organic Setups* for the Central Characterization Project at the Idaho National Laboratory.

Enclosed is a copy of the WSPF as required by Section C-5a of the Waste Isolation Pilot Plant, Hazardous Waste Facility Permit, No. NM4890139088-TSDF.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to 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 fine and imprisonment for knowing violations.

If you have questions, please contact Mr. J. R. Stroble, Director of the Office of the National TRU Program, at (575) 234-7313.

Sincerely,

Jose R. Franco, Manager
Carlsbad Field Office

Enclosure

cc: w/enclosure
S. Holmes, NMED *ED
T. Kliphuis, NMED ED
RCRA Chronology Record ED
WIPP Operating Record ED
CBFO M&RC
*ED denotes electronic distribution



Attachment 2 – CCP Waste Stream Profile Form

(1) Waste Stream Profile Number: ID-RF-S3114, Revision 1		
(2) Generator site name: Idaho National Laboratory	(3) Generator site EPA ID: ID4890008952	
(4) Technical contact: Jim Vernon	(5) Technical contact phone number: 575-234-7141	
(6) Date of audit report approval by New Mexico Environment Department (NMED): December 23, 2011		
(7) Title, version number, and date of documents used for WIPP-WAP Certification: CCP-PO-001, CCP Transuranic Waste Characterization Quality Assurance Project Plan, Revision 20, June 16, 2011; CCP-PO-002, CCP Transuranic Waste Certification Plan, Revision 26, July 14, 2011; CCP-PO-024, CCP/INL Interface Document, Revision 13, November 2, 2012		
(8) Did your facility generate this waste? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>		
(9) If no, provide the name and EPA ID of the original generator: Rocky Flats Environmental Technology Site CO7890010526		
Waste Stream Information		
(10) WIPP ID: IN-ID-RF-S3114 ¹	(11) Summary Category Group: S3000 – Homogeneous Solids	
(12) Waste Matrix Code Group: Solidified Organics	(13) Waste Stream Name: Organic Setups	
(14) Description from the ATWIR: This waste consists of various organic liquids that were transferred to Building 774 where they were immobilized using Micro-cel E (a synthetic calcium silicate) to form a grease or paste-like material. The organic liquids were primarily a mixture of oils and chlorinated solvents. Small amounts of Oil-Dri were sometimes added to the mixture as well. This process was shutdown in 1985 and replaced by the OASIS process.		
(15) Defense TRU Waste: YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>		
(16) Check One: CH <input checked="" type="checkbox"/> RH <input type="checkbox"/>		
(17) Number of SWBs: NA	(18) Number of Drums²: 7,440 55-gallon drums – Current	(19) Number of Canisters: NA
(17a) Number of SLB2: NA	2,439 55-gallon drums - Projected	
(20) Batch Data Report numbers supporting this waste stream characterization: See Characterization Information Summary (CIS) Correlation of Container Identification Numbers to Batch Data Report Numbers.		
(21) List applicable EPA Hazardous Waste Numbers³: D008, D022, D026, D027, D028, D029, D030, D032, D034, D036, D037, F001, F002 and F005		
(22) Applicable TRUCON Content Numbers: ID 112 / ID 212		
(23) Acceptable Knowledge Information		
(For the following, enter the supporting documentation used [i.e., references and dates])		
Required Program Information		
(23A) Map of site: CCP-AK-INL-005, Revision 7, September 28, 2012, Figures 1, 2 and 3		
(23B) Facility mission description: CCP-AK-INL-005, Revision 7, September 28, 2012, Section 4.2		
(23C) Description of operations that generate waste: CCP-AK-INL-005, Revision 7, September 28, 2012, Section 4.3		
(23D) Waste identification/categorization schemes: CCP-AK-INL-005, Revision 7, September 28, 2012, Section 4.5		
(23E) Types and quantities of waste generated: CCP-AK-INL-005, Revision 7, September 28, 2012, Section 4.4.1		
(23F) Correlation of waste streams generated from the same building and process, as applicable: CCP-AK-INL-005, Revision 7, September 28, 2012, Section 4.4.2		
(24) Waste certification procedures: CCP-TP-030, Revision 31, November 19, 2012		

CCP-TP-002, Rev. 25
CCP Reconciliation of DQOs and
Reporting Characterization Data

Effective Date: 02/11/2013

(25) Required Waste Stream Information	
(25A) Area(s) and building(s) from which the waste stream was generated: CCP-AK-INL-005, Revision 7, September 28, 2012, Section 5.1	
(25B) Waste stream volume and time period of generation: CCP-AK-INL-005, Revision 7, September 28, 2012, Section 5.2	
(25C) Waste generating process description for each building: CCP-AK-INL-005, Revision 7, September 28, 2012, Section 5.3	
(25D) Waste Process flow diagrams: CCP-AK-INL-005, Revision 7, September 28, 2012, Figures 4 and 5	
(25E) Material inputs or other information identifying chemical/radionuclide content and physical waste form: CCP-AK-INL-005, Revision 7, September 28, 2012, Section 5.4	
(25F) Waste Material Parameter Weight Estimates per unit of waste: See table entitled "Waste Stream ID-RF-S3114 Waste Material Parameters" in Summation of Aspects of AK Summary Report: Waste Stream ID-RF-S3114	
(26) Which Defense Activity generated the waste:	
<input checked="" type="checkbox"/> Weapons activities including defense inertial confinement fusion	Naval Reactors development
<input type="checkbox"/> Verification and control technology	Defense research and development
<input type="checkbox"/> Defense nuclear waste and material by products management	Defense nuclear material production
<input type="checkbox"/> Defense nuclear waste and materials security and safeguards and security investigations	
(27) Supplemental Documentation	
(27A) Process design documents: NA	
(27B) Standard operating procedures: See P014, P026, P043, P063, P064, P501, P502, P503, P504, P505, P535 and P536 in the Summation of Aspects of AK Summary Report: Waste Stream ID-RF-S3114, AK Source Documents.	
(27C) Safety Analysis Reports: NA	
(27D) Waste packaging logs: See U040, U043, U059 and U069 in the Summation of Aspects of AK Summary Report: Waste Stream ID-RF-S3114, AK Source Documents.	
(27E) Test plans/research project reports: See P002, P089, P167, P178, P179, P180, P181, P182, P183, P184, P185, P186, P187, P188, P189, P190, P191, P192, P193, P194, P195, P196, P197, P198, P199, P200, P201, P534 and P538 in the Summation of Aspects of AK Summary Report: Waste Stream ID-RF-S3114, AK Source Documents.	
(27F) Site databases: See U092 in the Summation of Aspects of AK Summary Report: Waste Stream ID-RF-S3114, AK Source Documents.	
(27G) Information from site personnel: See C057, C134, C137, C154, C159, C170, C171, C184, C185, C514, C515 and P016 in the Summation of Aspects of AK Summary Report: Waste Stream ID-RF-S3114, AK Source Documents.	
(27H) Standard industry documents: NA	
(27I) Previous analytical data: See D013, D014, P033, P512, P516 and U098 in the Summation of Aspects of AK Summary Report: Waste Stream ID-RF-S3114, AK Source Documents.	
(27J) Material safety data sheets: See P084, P091, P142, P517 and P518 in the Summation of Aspects of AK Summary Report: Waste Stream ID-RF-S3114, AK Source Documents.	
(27K) Sampling and analysis data from comparable/surrogate Waste: NA	
(27L) Laboratory notebooks: NA	
Confirmation Information	
<i>For the following, when applicable, enter procedure title(s), number(s) and date(s)</i>	
(28)	Radiography: CCP-TP-053, Revision 12, August 22, 2012
	Visual Examination: NA

(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.

This WSPF was revised to add Hazardous Waste Number D008 (Lead) to waste stream ID-RF-S3114.

Reviewed by AK Expert: YES Date: 2/15/2013

Reviewed by STR (if necessary): YES N/A Date: 2/20/2013

Waste Stream Profile Form Certification:

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.


Signature of Site Project Manager

Jim Vernon
Printed Name

2-26-13
Date

- NOTE:**
- (1) WIPP ID IN-W309.609 was previously used in the original WSPF. The ID was changed in the current Annual Transuranic Waste Inventory Report – 2012 DOE/TRU-12-3425.
 - (2) This includes 836 drums overpacked in 85-gallon drums to be certified and shipped to WIPP in the 85-gallon drums.
 - (3) If, radiography, visual examination were used to confirm EPA Hazardous Waste Numbers, attach signed Characterization Information Summary documenting this determination.

CHARACTERIZATION INFORMATION SUMMARY

WSPF # ID-RF-S3114 Rev. 1

Lot 87*

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* See comments on CIS-015

CCP Characterization Information Summary Cover Page

Waste Stream # ID-RF-S3114 Lot #: 87
 AK Expert Review: N/A Date: N/A
 SPM Review: Jim Vernon Date: 2/26/2013

SPM signature certifies that through Acceptable Knowledge testing and/or analysis that the waste identified in this summary is not corrosive, ignitable, reactive, or incompatible with the TSDF.

A summary of the Acceptable Knowledge regarding this waste stream containing specific information about the corrosivity, reactivity, and ignitability of the waste stream is included as an attachment to the Waste Stream Profile Form. By reference, that information is included in this lot.

List of procedures used:

Radiography (RTR/NDE):

CCP-TP-053	Rev. 12	08/22/12	CCP Standard Real-Time Radiography (RTR) Inspection Procedure
CCP-TP-053	Rev. 11	07/20/11	CCP Standard Real-Time Radiography (RTR) Inspection Procedure
CCP-TP-053	Rev. 10	03/04/11	CCP Standard Real-Time Radiography (RTR) Inspection Procedure
CCP-TP-053	Rev. 9	09/30/10	CCP Standard Real-Time Radiography (RTR) Inspection Procedure
CCP-TP-053	Rev. 8	06/30/10	CCP Standard Real-Time Radiography (RTR) Inspection Procedure
CCP-TP-053	Rev. 7	10/21/09	CCP Standard Real-Time Radiography (RTR) Inspection Procedure
CCP-TP-053	Rev. 6	03/04/08	CCP Standard Real-Time Radiography (RTR) Inspection Procedure
CCP-TP-053	Rev. 5	11/16/08	CCP Standard Real-Time Radiography (RTR) Inspection Procedure
CCP-TP-053	Rev. 4	12/22/05	CCP Standard Real-Time Radiography (RTR) Inspection Procedure
CCP-TP-053	Rev. 3	03/21/05	CCP Standard Real-Time Radiography (RTR) Inspection Procedure
CCP-TP-053	Rev. 2	07/14/04	CCP Standard Real-Time Radiography (RTR) Inspection Procedure

Non Destructive Assay (NDA):

CCP-TP-109	Rev. 9	02/14/13	CCP Data Reviewing, Validating, and Reporting Procedure
CCP-TP-109	Rev. 8	08/10/11	CCP Data Reviewing, Validating, and Reporting Procedure
CCP-TP-109	Rev. 7	01/26/11	CCP Data Reviewing, Validating, and Reporting Procedure
CCP-TP-109	Rev. 6	03/16/09	CCP Data Reviewing, Validating, and Reporting Procedure
CCP-TP-109	Rev. 5	11/16/06	CCP Data Reviewing, Validating, and Reporting Procedure
CCP-TP-109	Rev. 4	09/21/05	CCP Data Reviewing, Validating, and Reporting Procedure
CCP-TP-109	Rev. 3	04/12/05	CCP Data Reviewing, Validating, and Reporting Procedure
CCP-TP-109	Rev. 2	03/18/05	CCP Data Reviewing, Validating, and Reporting Procedure
CCP-TP-109	Rev. 1	05/06/04	CCP Data Reviewing, Validating, and Reporting Procedure
CCP-TP-115	Rev. 4	08/24/09	CCP SWEPP Gamma-Ray Spectrometer (SGRS) Operating Procedure
CCP-TP-115	Rev. 3	12/08/06	CCP SWEPP Gamma-Ray Spectrometer (SGRS) Operating Procedure
CCP-TP-115	Rev. 2	06/12/06	CCP SWEPP Gamma-Ray Spectrometer (SGRS) Operating Procedure
CCP-TP-115	Rev. 1	04/16/05	CCP SWEPP Gamma-Ray Spectrometer (SGRS) Operating Procedure
CCP-TP-115	Rev. 0	02/27/05	CCP SWEPP Gamma-Ray Spectrometer (SGRS) Operating Procedure
CCP-TP-107	Rev. 11	11/30/09	Operating the CCP High Efficiency Neutron Counter Using NDA2000
CCP-TP-107	Rev. 10	02/08/08	Operating the CCP High Efficiency Neutron Counter Using NDA2000
CCP-TP-107	Rev. 9	04/11/07	Operating the CCP High Efficiency Neutron Counter Using NDA2000
CCP-TP-107	Rev. 8	06/15/06	Operating the CCP High Efficiency Neutron Counter Using NDA2000
CCP-TP-107	Rev. 7	03/17/06	Operating the CCP High Efficiency Neutron Counter Using NDA2000
CCP-TP-107	Rev. 6	04/12/05	Operating the CCP High Efficiency Neutron Counter Using NDA2000
CCP-TP-019	Rev. 5	09/16/09	CCP Waste Assay Gamma Spectrometer (WAGS) Operating Procedure
CCP-TP-019	Rev. 4	10/19/06	CCP Waste Assay Gamma Spectrometer (WAGS) Operating Procedure
CCP-TP-019	Rev. 3	06/15/06	CCP Waste Assay Gamma Spectrometer (WAGS) Operating Procedure
CCP-TP-019	Rev. 2	06/10/05	CCP Waste Assay Gamma Spectrometer (WAGS) Operating Procedure
CCP-TP-019	Rev. 1	04/16/05	CCP Waste Assay Gamma Spectrometer (WAGS) Operating Procedure
CCP-TP-019	Rev. 0	02/27/05	CCP Waste Assay Gamma Spectrometer (WAGS) Operating Procedure
CCP-TP-146	Rev. 7	04/13/09	CCP SuperHENC Operating Procedure
CCP-TP-146	Rev. 6	02/27/09	CCP SuperHENC Operating Procedure
CCP-TP-146	Rev. 5	05/20/08	CCP SuperHENC Operating Procedure
CCP-TP-146	Rev. 4	07/10/07	CCP SuperHENC Operating Procedure
CCP-TP-146	Rev. 3	03/01/07	CCP SuperHENC Operating Procedure
CCP-TP-146	Rev. 2	01/24/07	CCP SuperHENC Operating Procedure
CCP-TP-146	Rev. 1	01/04/07	CCP SuperHENC Operating Procedure
CCP-TP-146	Rev. 0	09/21/06	CCP SuperHENC Operating Procedure
CCP-TP-148	Rev. 8	01/17/13	CCP SuperHENC Data Reviewing, Validating and Reporting Procedure
CCP-TP-148	Rev. 7	07/28/11	CCP SuperHENC Data Reviewing, Validating and Reporting Procedure
CCP-TP-148	Rev. 6	02/10/11	CCP SuperHENC Data Reviewing, Validating and Reporting Procedure
CCP-TP-148	Rev. 5	09/27/10	CCP SuperHENC Data Reviewing, Validating and Reporting Procedure
CCP-TP-148	Rev. 4	11/01/07	CCP SuperHENC Data Reviewing, Validating and Reporting Procedure
CCP-TP-148	Rev. 3	07/10/07	CCP SuperHENC Data Reviewing, Validating and Reporting Procedure
CCP-TP-148	Rev. 2	03/01/07	CCP SuperHENC Data Reviewing, Validating and Reporting Procedure
CCP-TP-148	Rev. 1	01/10/07	CCP SuperHENC Data Reviewing, Validating and Reporting Procedure
CCP-TP-148	Rev. 0	09/21/06	CCP SuperHENC Data Reviewing, Validating and Reporting Procedure

CCP Characterization Information Summary Cover Page

Visual Examination (VE):

None

Solids Sampling:

INST-OI-73	Rev. 3	07/24/08	Manual Drum Coring Operations
INST-OI-73	Rev. 2	04/07/08	Manual Drum Coring Operations
INST-OI-73	Rev. 1	07/19/07	Manual Drum Coring Operations
INST-OI-73	Rev. 0	03/28/07	Manual Drum Coring Operations
INST-OI-16	Rev. 29	07/03/08	Drum Coring Operations
INST-OI-16	Rev. 28	06/30/08	Drum Coring Operations
INST-OI-16	Rev. 27	04/10/08	Drum Coring Operations
INST-OI-16	Rev. 26	07/16/07	Drum Coring Operations
INST-OI-16	Rev. 25	07/05/07	Drum Coring Operations
INST-OI-16	Rev. 24	12/20/06	Drum Coring Operations
CCP-TP-008	Rev. 10	09/21/12	CCP Solids Sampling Procedure

Solids Analysis:

CCP-TP-183	Rev. 0	05/02/07	CCP Microwave Assisted Digestion of Homogeneous Solids and Soil/Gravel
ACCM-8909	Rev. 10	01/17/06	Microwave Assisted Digestion of Homogeneous Solids and Soil/Gravel
ACCM-8909	Rev. 9	01/20/05	Microwave Assisted Digestion of Homogeneous Solids and Soil/Gravel
CCP-TP-187	Rev. 1	11/18/08	CCP Sample Preparation for Semivolatile Organic Compounds
CCP-TP-187	Rev. 0	05/02/07	CCP Sample Preparation for Semivolatile Organic Compounds
ACCM-9500	Rev. 11	12/15/05	Sample Preparation for Semivolatile Organic Compounds and Polychlorinated Biphenyls
ACCM-9500	Rev. 10	07/28/04	Sample Preparation for Semivolatile Organic Compounds and Polychlorinated Biphenyls
CCP-TP-185	Rev. 1	11/18/08	CCP Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry
CCP-TP-185	Rev. 0	05/02/07	CCP Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry
ACMM-9270	Rev. 8	01/20/05	Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry
CCP-TP-184	Rev. 0	05/02/07	CCP Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry
ACMM-9280	Rev. 14	12/01/05	Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry
ACMM-9280	Rev. 13	12/21/04	Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry
CCP-TP-182	Rev. 1	01/28/09	CCP Determination of Metals by ICP-AES for TRU Waste Characterization
CCP-TP-182	Rev. 0	05/02/07	CCP Determination of Metals by ICP-AES for TRU Waste Characterization
ACMM-2901	Rev. 3	01/27/05	Determination of Trace Elements by ICP-AES for TRU Waste Characterization
CCP-TP-181	Rev. 0	05/02/07	CCP Determination of Mercury by CVAA for TRU Waste Characterization
ACMM-2810	Rev. 3	01/27/05	Determination of Mercury by CVAA for TRU Waste Characterization
CCP-TP-188	Rev. 1	08/22/07	CCP Determination of Nonhalogenated Volatile Organics by Gas Chromatography
CCP-TP-188	Rev. 0	05/02/07	CCP Determination of Nonhalogenated Volatile Organics by Gas Chromatography
ACMM-9441	Rev. 12	03/19/06	Determination of Nonhalogenated Volatile Organic Compounds by Gas Chromatography
ACMM-9441	Rev. 11	12/22/04	Determination of Nonhalogenated Volatile Organic Compounds by Gas Chromatography

Project Level Data Validation / DQO Reconciliation:

CCP-TP-001	Rev. 20	08/27/12	CCP Project Level Data Validation and Verification
CCP-TP-001	Rev. 19	12/29/10	CCP Project Level Data Validation and Verification
CCP-TP-001	Rev. 18	08/09/10	CCP Project Level Data Validation and Verification
CCP-TP-001	Rev. 17	09/24/07	CCP Project Level Data Validation and Verification
CCP-TP-001	Rev. 16	04/26/07	CCP Project Level Data Validation and Verification
CCP-TP-001	Rev. 15	11/22/06	CCP Project Level Data Validation and Verification
CCP-TP-001	Rev. 14	11/16/06	CCP Project Level Data Validation and Verification
CCP-TP-001	Rev. 13	07/21/06	CCP Project Level Data Validation and Verification
CCP-TP-001	Rev. 12	05/25/06	CCP Project Level Data Validation and Verification
CCP-TP-001	Rev. 11	03/23/05	CCP Project Level Data Validation and Verification
CCP-TP-002	Rev. 25	02/11/13	CCP Reconciliation of DQOs and Reporting Characterization Data
CCP-TP-002	Rev. 24	12/28/11	CCP Reconciliation of DQOs and Reporting Characterization Data
CCP-TP-002	Rev. 23	12/28/10	CCP Reconciliation of DQOs and Reporting Characterization Data
CCP-TP-002	Rev. 22	06/30/10	CCP Reconciliation of DQOs and Reporting Characterization Data
CCP-TP-002	Rev. 21	08/04/09	CCP Reconciliation of DQOs and Reporting Characterization Data
CCP-TP-002	Rev. 20	08/18/08	CCP Reconciliation of DQOs and Reporting Characterization Data
CCP-TP-002	Rev. 19	12/22/08	CCP Reconciliation of DQOs and Reporting Characterization Data
CCP-TP-002	Rev. 18	11/16/06	CCP Reconciliation of DQOs and Reporting Characterization Data
CCP-TP-002	Rev. 17	10/11/06	CCP Reconciliation of DQOs and Reporting Characterization Data
CCP-TP-002	Rev. 16	08/06/06	CCP Reconciliation of DQOs and Reporting Characterization Data
CCP-TP-002	Rev. 15	08/18/05	CCP Reconciliation of DQOs and Reporting Characterization Data
CCP-TP-002	Rev. 14	03/29/05	CCP Reconciliation of DQOs and Reporting Characterization Data
CCP-TP-003	Rev. 19	11/02/12	CCP Data Analysis for S3000, S4000, and S5000 Characterization
CCP-TP-003	Rev. 18	12/29/10	CCP Data Analysis for S3000, S4000, and S5000 Characterization
CCP-TP-003	Rev. 17	11/09/09	CCP Data Analysis for S3000, S4000, and S5000 Characterization
CCP-TP-003	Rev. 16	10/02/07	CCP Data Analysis for S3000, S4000, and S5000 Characterization

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CCP-TP-003	Rev. 15	11/16/06	CCP Data Analysis for S3000, S4000, and S5000 Characterization
CCP-TP-003	Rev. 14	09/03/03	CCP Sampling Design and Data Analysis for RCRA Characterization
CCP-TP-005	Rev. 24	11/28/11	CCP Acceptable Knowledge Documentation
CCP-TP-005	Rev. 23	06/30/11	CCP Acceptable Knowledge Documentation
CCP-TP-005	Rev. 22	04/21/11	CCP Acceptable Knowledge Documentation
CCP-TP-005	Rev. 21	12/29/10	CCP Acceptable Knowledge Documentation
CCP-TP-005	Rev. 20	11/01/10	CCP Acceptable Knowledge Documentation
CCP-TP-005	Rev. 19	07/06/10	CCP Acceptable Knowledge Documentation
CCP-TP-005	Rev. 18	11/16/06	CCP Acceptable Knowledge Documentation
CCP-TP-005	Rev. 17	06/05/06	CCP Acceptable Knowledge Documentation
CCP-TP-005	Rev. 16	02/27/06	CCP Acceptable Knowledge Documentation
CCP-TP-005	Rev. 15	03/31/05	CCP Acceptable Knowledge Documentation
CCP-TP-030	Rev. 31	11/19/12	CCP CH TRU Waste Certification and WWIS/WDS Data Entry
CCP-TP-030	Rev. 30	05/21/12	CCP CH TRU Waste Certification and WWIS/WDS Data Entry
CCP-TP-030	Rev. 29	04/26/11	CCP CH TRU Waste Certification and WWIS/WDS Data Entry
CCP-TP-030	Rev. 28	05/12/10	CCP CH TRU Waste Certification and WWIS/WDS Data Entry
CCP-TP-030	Rev. 27	12/14/09	CCP CH TRU Waste Certification and WWIS Data Entry
CCP-TP-030	Rev. 26	05/27/09	CCP CH TRU Waste Certification and WWIS Data Entry
CCP-TP-030	Rev. 25	01/22/09	CCP CH TRU Waste Certification and WWIS Data Entry
CCP-TP-030	Rev. 24	08/20/08	CCP CH TRU Waste Certification and WWIS Data Entry
CCP-TP-030	Rev. 23	03/12/08	CCP CH TRU Waste Certification and WWIS Data Entry
CCP-TP-030	Rev. 22	07/24/07	CCP CH TRU Waste Certification and WWIS Data Entry
CCP-TP-030	Rev. 21	05/21/07	CCP CH TRU Waste Certification and WWIS Data Entry
CCP-TP-030	Rev. 20	02/07/07	CCP CH TRU Waste Certification and WWIS Data Entry
CCP-TP-030	Rev. 19	11/16/06	CCP CH TRU Waste Certification and WWIS Data Entry
CCP-TP-030	Rev. 18	05/01/06	CCP TRU Waste Certification and WWIS Data Entry
CCP-TP-030	Rev. 17	12/29/05	CCP TRU Waste Certification and WWIS Data Entry
CCP-TP-030	Rev. 16	04/22/05	CCP TRU Waste Certification and WWIS Data Entry

WAP Certification:

CCP-PO-001	Rev. 20	06/16/11	CCP Transuranic Waste Characterization Quality Assurance Project Plan
CCP-PO-001	Rev. 19	12/29/10	CCP Transuranic Waste Characterization Quality Assurance Project Plan
CCP-PO-001	Rev. 18	06/30/10	CCP Transuranic Waste Characterization Quality Assurance Project Plan
CCP-PO-001	Rev. 17	06/23/09	CCP Transuranic Waste Characterization Quality Assurance Project Plan
CCP-PO-001	Rev. 16	10/31/07	CCP Transuranic Waste Characterization Quality Assurance Project Plan
CCP-PO-001	Rev. 15	08/08/07	CCP Transuranic Waste Characterization Quality Assurance Project Plan
CCP-PO-001	Rev. 14	03/27/07	CCP Transuranic Waste Characterization Quality Assurance Project Plan
CCP-PO-001	Rev. 13	11/16/06	CCP Transuranic Waste Characterization Quality Assurance Project Plan
CCP-PO-001	Rev. 12	03/22/06	CCP Transuranic Waste Characterization Quality Assurance Project Plan
CCP-PO-001	Rev. 11	03/10/05	CCP Transuranic Waste Characterization Quality Assurance Project Plan
CCP-PO-002	Rev. 26	07/14/11	CCP Transuranic Waste Certification Plan
CCP-PO-002	Rev. 25	12/29/10	CCP Transuranic Waste Certification Plan
CCP-PO-002	Rev. 24	06/30/10	CCP Transuranic Waste Certification Plan
CCP-PO-002	Rev. 23	04/07/10	CCP Transuranic Waste Certification Plan
CCP-PO-002	Rev. 22	01/12/10	CCP Transuranic Waste Certification Plan
CCP-PO-002	Rev. 21	01/26/09	CCP Transuranic Waste Certification Plan
CCP-PO-002	Rev. 20	11/02/07	CCP Transuranic Waste Certification Plan
CCP-PO-002	Rev. 19	05/22/07	CCP Transuranic Waste Certification Plan
CCP-PO-002	Rev. 18	11/16/06	CCP Transuranic Waste Certification Plan
CCP-PO-002	Rev. 17	11/16/06	CCP Transuranic Waste Certification Plan
CCP-PO-002	Rev. 16	11/16/06	CCP Transuranic Waste Certification Plan
CCP-PO-002	Rev. 15	03/22/06	CCP Transuranic Waste Certification Plan
CCP-PO-002	Rev. 14	12/29/05	CCP Transuranic Waste Certification Plan
CCP-PO-002	Rev. 13	05/09/05	CCP Transuranic Waste Certification Plan
CCP-PO-024	Rev. 13	11/02/12	CCP/INL Interface Document
CCP-PO-024	Rev. 12	10/01/12	CCP/INL Interface Document
CCP-PO-024	Rev. 11	07/18/11	CCP/INL Interface Document
CCP-PO-024	Rev. 10	12/29/10	CCP/INL Interface Document
CCP-PO-024	Rev. 9	03/16/09	CCP/INL Interface Document
CCP-PO-024	Rev. 8	07/07/08	CCP/INL Interface Document
CCP-PO-024	Rev. 7	01/04/08	CCP/INL Interface Document
CCP-PO-024	Rev. 6	05/15/07	CCP/INL Interface Document
CCP-PO-024	Rev. 5	11/16/06	CCP/INL Interface Document
CCP-PO-024	Rev. 4	03/14/06	CCP/INL Interface Document
CCP-PO-024	Rev. 3	04/29/05	CCP/INL Interface Document
CCP-PO-024	Rev. 2	04/12/05	CCP/INL Interface Document
CCP-PO-024	Rev. 1	02/23/05	CCP/INL Interface Document
CCP-PO-024	Rev. 0	10/25/04	CCP/INL Interface Document

CCP Correlation of Container Identification Numbers to Batch Data Report Numbers

Waste Stream: #

ID-RF-S3114

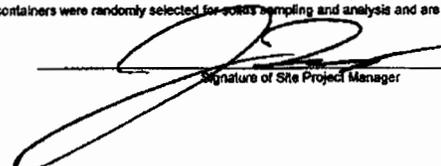
Lot # 87

Container ID Number	Historical Container ID	NDA BDR	RTR BDR	VE BDR	Solids Sampling BDR	Solids Analytical BDR	Load Management/Overpack Yes	Overpack Required	Headspace Gas BDR				
									Sample	Analysis			
10023184 ⁽¹⁾	N/A	INNDAW120006	INRTR5080014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10036471 ⁽¹⁾	N/A	INNDAW120006	INRTR5080033	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10036814 ⁽¹⁾	N/A	INNDAW120006	INRTR5050106	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10049040 ⁽¹⁾	N/A	INNDAW120006	INRTR5060134	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10080208 ⁽¹⁾	N/A	INNDAW120001	INRTR5110111	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10001220 ⁽²⁾	N/A	N/A	N/A	N/A	WCS-0503	ALD05031V ALD05031V ALD05022N ALD05031M	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10008215 ⁽²⁾	N/A	N/A	N/A	N/A	WCS-0503	ALD05031V ALD05031V ALD05022N ALD05031M	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10024871 ⁽²⁾	N/A	N/A	N/A	N/A	WCS-0503	ALD05031V ALD05031V ALD05022N ALD05031M	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10036807 ⁽²⁾	N/A	N/A	N/A	N/A	WCS-0503	ALD05031V ALD05031V ALD05022N ALD05031M	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10045820 ⁽²⁾	N/A	N/A	N/A	N/A	WCS-0503	ALD05031V ALD05031V ALD05022N ALD05031M	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10061521 ⁽¹⁾	N/A	INNDAS090365	INRTR5090073	N/A	SSC08-00004	ALD08023V ALD08023S ALD08015N ALD08046M	N/A	Yes	N/A	N/A	N/A	N/A	N/A
10083499 ⁽²⁾	N/A	N/A	N/A	N/A	SSC08-00004	ALD08023V ALD08023S ALD08015N ALD08046M	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10057346 ⁽²⁾	N/A	N/A	N/A	N/A	SSC08-00012	ALD08023V ALD08023S ALD08021N ALD08054M	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Note: This Lot was established for WSPF ID-RF-S3114 Revision 1 to add Hazardous Waste Number D008.

(1) All RTR/NDA data for these containers have been accounted for in previous Lots.

(2) These containers were randomly selected for solids sampling and analysis and are included for the verification of hazardous waste number assignment for the waste stream only.



 Signature of Site Project Manager

 Jim Vernon
 Printed Name

 2/28/2013
 Date

CIS-005

CCP Solids Analysis VOC UCL₉₀ Evaluation Form

WSPF #:

ID-RF-S3114 Rev. 1

Waste Stream Lot Number

1 through 2

ANALYTE	Transform Data Used (No, Data-Log, SQRT, other)	# Samples above MDL (1)	# Samples (2)	Maximum (ppmv) (2)	Mean (ppmv) (2)	SD (ppmv) (2)	UCL ₉₀ (ppmv) (2)	PRQL (ppmv)	Transformed PRQL (N/A or Value)	UCL ₉₀ > PRQL Yes	EPA Code
Benzene	No	0	8	0.00	0.00	0.00	0.00	10	N/A		
Bromoform	No	0	8	0.00	0.00	0.00	0.00	10	N/A		
Carbon Disulfide	No	0	8	0.00	0.00	0.00	0.00	10	N/A		
Carbon Tetrachloride	No	7	8	71000.00	44285.71	23070.29	56840.02	10	N/A	Yes	F001
Chlorobenzene	No	0	8	0.00	0.00	0.00	0.00	10	N/A		
Chloroform	SQRT	3	8	71.41	52.61	17.29	71.42	10	3.16	Yes	D022
1,2-Dichloroethane	No	0	8	0.00	0.00	0.00	0.00	10	N/A		
1,1-Dichloroethylene	No	0	8	0.00	0.00	0.00	0.00	10	N/A		
trans-1,2-Dichloroethylene	No	0	8	0.00	0.00	0.00	0.00	10	N/A		
Ethyl benzene	No	0	8	0.00	0.00	0.00	0.00	10	N/A		
Methylene chloride	No	0	8	0.00	0.00	0.00	0.00	10	N/A		
1,1,2,2-Tetrachloroethane	No	0	8	0.00	0.00	0.00	0.00	10	N/A		
Tetrachloroethylene (3)	No	1	8	5000.00	5000.00	0.00	(3)	10	N/A	Yes	F002 (4)
Toluene	No	0	8	0.00	0.00	0.00	0.00	10	N/A		
1,1,1-Trichloroethane	Log	6	8	12.35	10.79	1.39	11.63	10	2.30	Yes	F001, F002
1,1,2-Trichloroethane	No	0	8	0.00	0.00	0.00	0.00	10	N/A		
Trichloroethylene (3)	No	2	8	470000.00	235440.00	N/A	(3)	10	N/A	Yes	F002 (4)
Trichlorofluoromethane (3)	No	1	8	7800.00	7800.00	0.00	(3)	10	N/A	Yes	F001 F002 (5)
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	Log	4	8	9.85	9.49	0.41	9.82	10	2.30	Yes	F002
Vinyl chloride	No	0	8	0.00	0.00	0.00	0.00	4	N/A		
m,p-Xylene ^d	No	0	8	0.00	0.00	0.00	0.00	10	N/A		
o-Xylene	No	0	8	0.00	0.00	0.00	0.00	10	N/A		
Acetone	Log	4	8	3.26	1.06	1.41	1.76	100	4.61		
Butanol	Log	3	8	2.20	0.69	1.05	1.21	100	4.61		
Methanol	No	0	8	1.10	0.99	0.20	1.09	100	N/A		
Methyl ethyl ketone	Log	2	8	1.72	0.46	0.72	0.82	100	4.61		
Ethyl ether	No	0	8	1.65	1.52	0.19	1.62	100	N/A		

CCP Solids Analysis VOC UCL₉₀ Evaluation Form

WSPF #: ID-RF-S3114 Rev. 1

Waste Stream Lot Number

1 through 2

ANALYTE	Transform Data Used (No, Data-Log, SQRT, other)	# Samples above MDL (1)	# Samples (2)	Maximum (ppmv) (2)	Mean (ppmv) (2)	SD (ppmv) (2)	UCL ₉₀ (ppmv) (2)	PRQL (ppmv)	Transformed PRQL (N/A or Value)	UCL ₉₀ > PRQL Yes	EPA Code
Isobutanol	Log	1	8	2.77	0.23	1.07	0.76	100	4.61		
Pyridine ^c	Log	1	8	1.57	0.55	0.44	0.77	100	4.61		
1,4-Dichlorobenzene ^c	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
Ortho-Dichlorobenzene ^c	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
Formaldehyde ^a	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
Hydrazine ^b	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		

^a Required only for homogenous solids and soil/gravel waste from the Savannah River Site.

^b Required only for homogenous solids and soil/gravel waste from Oak Ridge National Laboratory and Savannah River Site.

^c Can also be analyzed as an SVOC. If analyzed as an SVOC, the QAOs of CCP-PO-001, Table C3-6 apply.

^d These xylene isomers cannot be resolved by the analytical methods employed in the program. m-Xylene and p-Xylene will be reported as "Total m-p-Xylene."

Comments:

(1) For analytes where there were no samples measured above the MDL value, 1/2 of the MDL value was used. (Per section C4 of the WAP, 1/2 of the MDL value is used in calculating the mean concentration.)

(2) As a result of dilution requirements, several analytes were reported as non-detected with MDL values in excess of the PRQL. In accordance with Section C4-3d of the WIPP-WAP, such "U" flagged observations with elevated MDL values due to dilution were not used in calculating mean concentration. Consequently, the subject analytes were statistically evaluated using only the useable observations. For analytes with no useable data, there is no corresponding data reported on the UCL90 evaluation form. See the Solids Sampling and Analysis Information section of the AK Summation for assignment of Hazardous Waste Numbers per AK.

(3) Because the noted analyte has < 3 different observations, no meaningful covariance exists and the UCL90 value could not be calculated. Therefore, the PRQL was compared to the maximum for the purpose of confirming HWNs

(4) For Tetrachloroethylene and Trichloroethylene there was only one usable data point. Due to the lack of variability of the data no UCL90 value can be calculated. The F002 EPA code is assigned in AK for both HWN's.

(5) For Trichlorofluoromethane there was only one usable data point. Due to the lack of variability of the data no UCL90 value can be calculated. The F001 and F002 EPA codes are assigned in AK.


 Signature of Site Project Manager

Jim Vernon
 Printed Name

2/26/2013
 Date

CCP Solids Analysis SVOC UCL₉₀ Evaluation Form

WSPF #: ID-RF-S3114 Rev. 1

Waste Stream Lot Number

1 through 2

ANALYTE	Transform Data Used (No, Data-Log, SQRT, other)	# Samples above MDL (1)	# Samples (2)	Maximum (ppmv)	Mean (ppmv)	SD (ppmv) (2)	UCL ₉₀ (ppmv) (2)	PRQL (ppmv)	Transformed PRQL (N/A or Value)	UCL ₉₀ > PRQL Yes	EPA Code
2-Methylphenol (cresols)	Log	0	8	3.00	2.17	0.66	2.53	40	3.69		
3&4 -Methylphenol (cresols)	Log	4	8	5.52	3.54	1.05	4.06	40	3.69	Yes	D026
1,4-Dichlorobenzene ^(a)	Log	0	8	3.00	2.17	0.66	2.53	40	3.69		
Ortho-Dichlorobenzene ^(a)	Log	2	8	6.41	3.07	1.62	3.88	40	3.69	Yes	F002
2,4-Dinitrophenol	SQRT	0	8	4.47	3.62	1.02	4.24	40	6.32		
2,4-Dinitrotoluene	No	0	8	0.00	0.00	0.00	0.00	2.6	N/A		
Hexachlorobenzene	No	0	8	0.00	0.00	0.00	0.00	2.6	N/A		
Hexachloroethane	Log	5	8	5.83	4.03	1.56	4.88	40	3.69	Yes	D034
Nitrobenzene	Log	0	8	3.00	2.17	0.66	2.53	40	3.69		
Pentachlorophenol	Log	0	8	3.00	2.17	0.66	2.53	40	3.69		
Pyridine ^(a)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		

^a Can also be analyzed as an VOC. If analyzed as an VOC, the QAO's of CCP-PO-001, Table C3-4 apply.

Comments:

(1) For Analytes where there were no samples measured above the MDL value, 1/2 of the MDL value was used. (Per section C4 of the WAP, 1/2 of the MDL value is used in calculating the mean concentration)

(2) As a result of dilution requirements, several analytes were reported as non-detected with MDL values in excess of the PRQL. In accordance with Section C4-3d of the WIPP-WAP, such "U" flagged observations with elevated MDL values due to dilution were not used in calculating mean concentration. Consequently, the subject analytes were statistically evaluated using only the useable observations. For analytes with no useable data, there is no corresponding data reported on the UCL90 evaluation form. See the AK summation portion of the WSPF for assignment of Hazardous Waste Numbers per AK.



 Signature of Site Project Manager

Jim Vernon

 Printed Name

2/26/2013

 Date

CCP Solids Analysis Metals UCL₉₀ Evaluation Form

WSPF #: ID-RF-S3114 Rev. 1

Waste Stream Lot Number 1 through 2

ANALYTE	Transform Data Used (No, Data-Log, SQRT, other)	# Samples above MDL	# Samples	Maximum (ppmv)	Mean (ppmv)	SD (ppmv)	UCL ₉₀ (ppmv)	PRQL (ppmv)	Transformed PRQL (N/A or Value)	UCL ₉₀ > PRQL Yes	EPA Code
Antimony	Log	1	8	-0.34	-1.03	0.33	-0.87	100	4.61		
Arsenic	Log	4	8	1.34	-0.25	0.96	0.23	100	4.61		
Barium	No	8	8	72.00	42.75	19.67	52.59	2000	N/A		
Beryllium	Log	7	8	1.03	-0.54	1.46	0.19	100	4.61		
Cadmium	Log	8	8	0.47	-0.05	0.31	0.11	20	3.00		
Chromium	Log	8	8	3.43	2.79	0.28	2.93	100	4.61		
Lead	Log	8	8	2.08	1.31	0.45	1.54	100	4.61		
Mercury	Log	8	8	-1.77	-2.92	0.79	-2.53	4	1.39		
Nickel	Log	8	8	3.87	2.70	0.52	2.96	100	4.61		
Selenium	Log	1	8	-0.09	-1.01	0.38	-0.82	20	3.00		
Silver	Log	4	8	-0.45	-1.02	0.52	-0.76	100	4.61		
Thallium	SQRT	1	8	1.00	0.69	0.17	0.77	100	10.00		
Vanadium	Log	8	8	3.81	3.40	0.18	3.49	100	4.61		
Zinc	No	8	8	42.00	29.50	9.32	34.16	100	N/A		

Page 12 of 35

Comments:

None



 Signature of Site Project Manager

Jim Vernon

 Printed Name

2/26/2013

 Date

CBS-009

CCP Solid VOCs Summary Data

Waste Stream Number

ID-RF-S3114

Waste Stream Lot Number

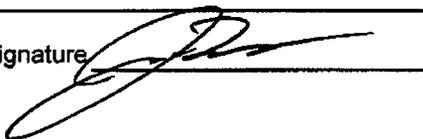
2

Tentatively Identified Compound	Maximum Observed Estimated Concentrations (ppmv)	# Samples Containing TIC	% Detected
NONE	N/A	N/A	N/A

Data Supports EPA Hazardous Waste Numbers Assigned by AK? Yes No

If no, describe the basis for assigning the EPA Hazardous Waste Codes:

SPM Signature



Date 2/26/2013

CCP Solid SVOCs Summary Data

Waste Stream Number

ID-RF-S3114

Waste Stream Lot Number

2

Tentatively Identified Compound	Maximum Observed Estimated Concentrations (ppmv)	# Samples Containing TIC	% Detected
Dibutyl phthalate	47.00	1	12.50%
tetrachlorobiphenyl	140.00	1	12.50%
pentachlorobiphenyl	180.00	1	12.50%
Hexachlorobiphenyl	96.00	1	12.50%
1,2-Benzenedicarboxylic acid, diheptyl ester	88.00	1	12.50%
bis(2-Ethylhexyl)phthalate	760.00	2	25.00%
Di-n-octyl phthalate	170.00	1	12.50%
Hexachloroethane	100.00	1	12.50%
phenol	760.00	1	12.50%

Data Supports EPA Hazardous Waste Numbers Assigned by AK? Yes No

If no, describe the basis for assigning the EPA Hazardous Waste Codes:

Note: Bis(2-ethylhexyl)phthalate is listed in Appendix VIII to 40CFR Part 261 and is present as a TIC in greater than 25% of the samples in the waste stream. This analyte has been added to the target analyte list for ID-RF-S3114. Bis(2-ethylhexyl)phthalate was detected in two samples; however, the Hazardous Waste Code for Bis(2-ethylhexyl)phthalate U028 will not be applied to ID-RF-S3114. Waste stream ID-RF-S3114 does not contain wastes that were mixed commercial chemical product Bis(2-ethylhexyl)phthalate, an off-specification chemical product or a container residue or a spill residue thereof.

SPM Signature



Date 2/26/2013

CCP RTR/VE Summary of Prohibited Items and AK Confirmation

Waste Stream Number: ID-RF-S3114

Lot #: 87

Container Number	RTR Prohibited Items ^{a,b}	Visual Examination Prohibited Items ^{a,b}
See correlation of container ID numbers for list of remaining drum numbers in this Lot.	None of the containers in this lot had prohibited items identified during RTR.	VE was not used to certify any containers in this Lot.

a. See Batch Data Reports

b. If AK has assigned U134 to this waste stream, then any liquids in these containers are prohibited items (not acceptable by the TSDf).

Justification for the selection of RTR and/or VE: RTR was selected as the characterization method for the containers in this lot because the containers in this lot were previously packaged.



Site Project Manager Signature

Jim Vernon
 Printed Name

2/26/2013
 Date

CCP Reconciliation with Data Quality Objectives

WSF# ID-RF-S3114 Rev. 1

Lot # 87

Sampling Completeness

RTR:

Number of Valid Samples: 6
Percent Complete: 100 (QAO is 100%)

Number of Total Samples Analyzed: 6

NDA

Number of Valid Samples: 6
Percent Complete: 100 (QAO is 100%)

Number of Total Samples Analyzed: 6

HSG

Number of Valid Samples: NA
Percent Complete: NA (QAO is $\geq 90\%$)
Number of Valid Samples: NA
Percent Complete: NA (QAO is $\geq 90\%$)

Number of Total Samples Collected: NA

Number of Total Samples Analyzed: NA

Total VOC

Number of Valid Samples: 8
Percent Complete: 100 (QAO is $\geq 90\%$)
Number of Valid Samples: 8
Percent Complete: 100 (QAO is $\geq 90\%$)

Number of Total Samples Collected: 8

Number of Total Samples Analyzed: 8

Total SVOC

Number of Valid Samples: 8
Percent Complete: 100 (QAO is $\geq 90\%$)
Number of Valid Samples: 8
Percent Complete: 100 (QAO is $\geq 90\%$)

Number of Total Samples Collected: 8

Number of Total Samples Analyzed: 8

Total Metals

Number of Valid Samples: 8
Percent Complete: 100 (QAO is $\geq 90\%$)
Number of Valid Samples: 8
Percent Complete: 100 (QAO is $\geq 90\%$)

Number of Total Samples Collected: 8

Number of Total Samples Analyzed: 8

CCP Reconciliation with Data Quality Objectives

WSF# ID-RF-S3114 Rev. 1

Lot # 87

	Y/N/NA	Reconciliation Parameter
1	Y	Waste Matrix Code.
2	Y	Waste Material Parameter Weights.
3	Y	The waste matrix code identified is consistent with the type of sampling and analysis used to characterize the waste.
4	Y	The TRU activity reported in the BDRs for each container demonstrates with a 95% probability that the container of waste contains TRU radioactive waste.
5	N	AK Sufficiency. Is there an approved AK sufficiency Determination for this waste stream?
6	NA	Mean concentrations, UCL ₉₀ values for the mean concentration, standard deviations, and the number of samples collected for each VOC in the HSG of each container were calculated and compared with the program required quantitation limits, as reported in CCP-TP-003 Attachment 3, and additional U.S. Environmental Protection Agency (EPA) Hazardous Waste Numbers were assigned as required. Samples were randomly collected (when appropriate).
7a	Y	Mean concentrations, UCL ₉₀ values for the mean concentration, standard deviations, and the number of samples collected for solids VOCs were calculated and compared with the program required quantitation limits and regulatory thresholds, as reported in the Characterization Information Summary, CCP-TP-003 Attachment 4, and additional EPA HWNs were assigned as required. Samples were randomly collected.
7b	Y	Mean concentrations, (UCL ₉₀) values for the mean concentration, standard deviations, and the number of samples collected for solids SVOCs were calculated and compared with the program required quantitation limits and regulatory thresholds, as reported in the Characterization Information Summary, CCP-TP-003 Attachment 5, and additional EPA HWNs were assigned as required. Samples were randomly collected.
7c	Y	Mean concentrations, (UCL ₉₀) values for the mean concentration, standard deviations, and the number of samples collected for total metals were calculated and compared with the program required quantitation limits and regulatory thresholds, as reported in the Characterization Information Summary, CCP-TP-003 Attachment 6, and additional EPA HWNs were assigned as required. Samples were randomly collected.

CCP Reconciliation with Data Quality Objectives

WSF# ID-RF-S3114 Rev. 1

Lot # 87

8	Y	The data demonstrates whether the waste stream exhibits a toxicity characteristic under Title 40 Code of Federal Regulations (CFR), Part 261, Identification and Listing of Hazardous Waste, Subpart C, Characteristics of Hazardous Waste.		
9	Y	Does the waste stream contain listed waste found in 20.4.1.200 NMAC incorporating 40 CFR Part 261, Subpart D, Lists of Hazardous Wastes.		
10	Y	Waste stream can be classified as hazardous or nonhazardous at the 90-percent confidence level.		
11	NA	Appropriate packaging configuration and Drum Age Criteria (DAC) is applied and documented in the headspace gas sampling documentation, and the drum age met prior to sampling.		
12	Y	TICs were appropriately identified and reported in accordance with the requirements of Section C3-1 of the QAPjP.		
13	NA	The PRQLs for headspace gas VOCs were met for all analyses as evidenced by the analytical batch data reports.		
14		The overall completeness, comparability, and representativeness QAOS were met for each of the analytical and testing procedures as specified in the WAP Sections C3-2 through C3-9 prior to submittal of a waste stream profile form for a waste steam or waste stream lot.		
		Completeness	Comparability	Representativeness
	Radiography	Y	Y	Y
	VE	NA	NA	NA
	Headspace Gas Analysis	NA	NA	NA
	Solids Sampling	Y	Y	Y
	Solids VOCs	Y	Y	Y
	Solids SVOCs	Y	Y	Y
Solids Metals	Y	Y	Y	
Comments:	<p>This CIS represents the NDE and NDA data from the 87th shipping lot and the solids analytical data from Solid Summary lots 1 and 2 from waste stream ID-RF-S3114. A total of 3066 containers have been evaluated in shipping lots 1 through 87.</p> <p>A total of 8 containers have been sampled for solids RCRA analysis. Solids summary lot 2 included as part of this shipping lot, accumulates 5 containers from solids summary lot 1 and 3 additional containers from solids summary lot 2. The 5 samples from solids summary lot 1 were submitted in the CIS for the original revision of the WSPF for the ID-RF-S3114 waste stream.</p>			



 Signature of Site Project Manager

Jim Vernon

 Printed Name

2/26/2013

 Date

CIS-015

Summation of Aspects of AK Summary Report: Waste Stream ID-RF-S3114**Overview**

Waste Stream ID-RF-S3114 consists of contact handled (CH) transuranic (TRU) mixed homogeneous solid waste generated at Rocky Flats Environmental Technology Site (formerly Rocky Flats Plant) in Golden, Colorado. The drums of this Rocky Flats waste are stored at the Idaho National Laboratory (INL) Radioactive Waste Management Complex (RWMC). Rocky Flats had two primary missions: the production of triggers for nuclear weapons, and the processing of retired weapons for plutonium recovery. The triggers, also known as pits, were the first-stage fission bombs used to initiate the second-stage fusion reaction in hydrogen bombs. Plutonium metal was recovered from retired warheads and manufacturing residues for reuse. This transuranic waste stream was generated in support of these defense related weapons activities. Therefore, this waste stream is defense related waste.

This summation of the Acceptable Knowledge (AK) Summary Report includes information to support Waste Stream Profile Form (WSPF) number ID-RF-S3114 Rev. 1. The primary source of information for this summation is CCP-AK-INL-005, *Central Characterization Project Acceptable Knowledge Summary Report for Rocky Flats Immobilized Organic Liquids Stored at the Idaho National Laboratory, Waste Streams: ID-RF-S3114 and ID-RF-S3150-A*, Revision 7, September 28, 2012.

Waste Stream Identification Summary

Waste Stream Name:	Organic Setups
Waste Stream Number:	ID-RF-S3114
Dates of Waste Generation:	June 1968 - Present ¹
Waste Stream Volume – Current:	7,440 55-gallon drums ²
Waste Stream Volume – Projected:	2,439 55-gallon drums ²
Summary Category Group:	S3000, Homogeneous Solids
Waste Matrix Code Group:	Solidified Organics
Waste Matrix Code:	S3114, Absorbed Organic Liquids
TRUPACT-II Content Code:	ID 112/ ID212
Annual Transuranic Waste Inventory Report Identification Number:	IN-ID-RF-S3114 ³

¹ Waste with generation dates after 1986 are the result of waste characterization activities, such as VE.

² This includes 836 drums overpacked in 85-gallon drums to be certified and shipped to WIPP in the 85-gallon drums.

³ WIPP ID IN-W309.609 was previously used in the original WSPF. The ID was changed in the current Annual Transuranic Waste Inventory Report – 2012 DOE/TRU-12-3425.

Waste Stream Description and Physical Form:

Waste stream ID-RF-S3114 consists of various organic liquids that were transferred to Building 774 where they were immobilized using Micro-cel E (a synthetic calcium silicate) to form a grease or paste-like material. The organic liquids were primarily a mixture of oils and chlorinated solvents. Small amounts of Oil-Dri were sometimes added to the mixture as well. The waste may also include small amounts of soil and debris materials (e.g., cellulosic, plastic, metals, etc.).

This waste stream meets the definition of waste materials that have common physical form, that contain similar hazardous constituents, and that are generated from a single process or activity. This waste stream was generated from the solidification of organic liquids in Building 774.

Point of Generation

Location

Waste stream ID-RF-S3114 was generated at Rocky Flats, located in northern Jefferson County, Colorado, approximately 16 miles northwest of downtown Denver. The waste is currently stored at the RWMC, located approximately 51 miles west of Idaho Falls, Idaho.

Area and/or Buildings of Generation

Organic liquid wastes from numerous buildings on site were transferred to Building 774 for treatment. The liquids were then treated as described in the following.

Generating Processes

Description of Waste Generation Processes

Organic Liquid Waste Generation

Organic liquid wastes from numerous buildings on site were transferred to Building 774 for treatment. The organic liquids originated in Buildings 334, 371, 443, 444, 447, 559, 707, 771, 776, 777, 778, 779, 865, 881, 883, and 991 (References U040 and U043). The feed waste oils and solvents were generated primarily from machining and degreasing operations in Buildings 707 and 777. A cutting oil, Texaco Regal A (a nonhazardous oil), flowed onto a part during machining (References P052, P077, and P518). After machining, the part was rinsed to remove residual oil. Various solvents were used to rinse machined parts and degrease tools. These included carbon tetrachloride, 1,1,2-trichloro-1,2,2-trifluoroethane, 1,1,1-trichloroethane, trichloroethylene, and tetrachloroethylene. Ultrasonic cleaner baths using 1,1,1-trichloroethane were used to clean parts. Metal turnings and scrap were cleaned in carbon tetrachloride baths before forming the turnings into briquettes (References P052, P053, and P077). Trichloroethylene was replaced by 1,1,1-trichloroethane for vapor degreasing of plutonium parts. Trichloroethylene remained in use in only one plutonium operation, and later was used only in research and analytical activities (Reference P023). A logbook was used in Building 774 to record the types of organic waste and generation source of the liquids that made up the immobilized organic liquids wastes. The date of treatment, generation location, waste description, and volume of waste were entered in the logbook (References U040 and U043).

The feed materials from Buildings 334, 371, 443, 444, 447, 559, 771, 776, 778, 779, 865, 881, 883 and 991 included pump oil, hydraulic oil, engine oil, lathe cutting oil, coolant oils and some organic solvents (See TC Characteristic and F-Listed Constituents, Waste Stream ID-RF-S3114 table below for hazardous constituents identified in feed materials).

Organic Liquid Waste Treatment

Organic liquids were processed through an extruder with Micro-cel E, a synthetic calcium silicate (References P002 and P517). Small amounts of Oil-Dri absorbent were sometimes added to the mixture as well (Reference P024). The amounts of materials added to the mixture were not metered; however, the operator would adjust the composition if the outgoing mixture did not have a paste-like consistency. The mixture would then drop into a polyvinyl chloride (PVC) O-ring bag contained in a 55-gallon drum (Reference P016). The composition of organic setups was approximately 30-gallons of liquid organic waste to 100 pounds of Micro-cel E. (Reference P024). The Grease Plant shut down in 1985 and was replaced by the new ENVIROSTONE process called the Organic and Sludge Immobilization System (OASIS). The treated organic liquids from the OASIS process are included in a separate WSPF (waste stream ID-RF-S3150-A).

Waste Repackaging and Liquid Waste Remediation

Drums of solidified organic waste containing liquids are remediated and or repackaged in the Advanced Mixed Waste Treatment Project (AMWTP) Drum Treatment Facility (DTF), located in Building WMF-628; the Advanced Mixed Waste Treatment Facility (AMWTF), Building WMF-676; or the Sludge Repackage Project (SRP). The drums are processed in the DTF to breach layers of confinement, segregate prohibited items, and remove liquids as necessary by liquid absorption and/ or shaker table operations with Micro-cel E. Other operations conducted may include rigid liner removal and repackaging, and drum over packing and un-over packing. Secondary waste items, such as leather, latex, and Silver Shield gloves, knives, cutters, drum filters, and plastic sleeving and aprons, may be packaged in the remediated drums (References C515, P535, and P536).

Drums repackaged in the AMWTF and SRP will be characterized by visual examination (VE) to breach layers of confinement, segregate prohibited items, and remove liquids as necessary by absorption (References C518, C522, P536, P542, P543, and P544). Incidental spills of waste material during SRP reprocessing activities will be collected with small quantities of surrounding oil and included with the sludge (References P542, P543, and P546).

Waste Stream Material and Chemical Inputs

The following table identifies the Resource Conservation and Recovery Act (RCRA) toxicity characteristic and F-listed constituents identified in this waste stream.

TC Characteristic and F-Listed Constituents, Waste Stream ID-RF-S3114

Chemical	EPA HWNs	Use	References
1,1,1-Trichloroethane	F001 and F002	Plutonium fabrication Research and development Analytical laboratory reagent Metallography laboratory	P053, P060, P076, P079, P520
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon TF)	F002	Plutonium fabrication Depleted uranium fabrication Beryllium fabrication Stainless-steel fabrication Research and development Analytical laboratory reagent	P052, P060, P076, P079, P520
1,1-Dichloroethylene	D029	Analytical laboratory reagent	P052
1,2-Dichlorobenzene (ortho-dichlorobenzene)	F002	Minimum detection limit (MDL) exceeded program required quantitation limit (PRQL) due to dilution for Rocky Flats solids data	P521
1,2-Dichloroethane	D028	Analytical laboratory reagent	P052
1,4-Dichlorobenzene	D027	MDL exceeded PRQL due to dilution for Rocky Flats solids data	P521
2-Ethoxyethanol	F005	Analytical laboratory reagent	P052
2,4-Dinitrotoluene	D030	MDL exceeded PRQL due to dilution for Rocky Flats solids data	P521
Benzene	F005	Plutonium fabrication Analytical laboratory reagent	P053, P076
Carbon disulfide	F005	Analytical laboratory reagent	P076
Carbon tetrachloride	F001	Plutonium fabrication Analytical laboratory reagent	P053, P060, P076, P520
Chloroform	D022	Analytical laboratory reagent Research and development	P052, P053, P076
Cresol	D026	MDL exceeded PRQL due to dilution for Rocky Flats solids data	P521
Hexachlorobenzene	D032	MDL exceeded PRQL due to dilution for Rocky Flats solids data	P521
Hexachloroethane	D034	90-percent Upper Confidence Limit (UCL ₉₀) exceeded the regulatory threshold limit (RTL) in both Rocky Flats and INL 3,100 Cubic Meter Project solids data	P507, P521, U098
Lead	D008	Lead items identified by real-time radiography (RTR)	D024
Methyl ethyl ketone	F005	Research and development	P052, P062

Chemical	EPA HWNs	Use	References
		Analytical laboratory reagent	
Methylene chloride	F002	Research and development Analytical laboratory reagent	P052, P053, P062, P076
Nitrobenzene	D036	Analytical laboratory reagent; non-solvent use	P052
Pentachlorophenol	D037	MDL exceeded PRQL due to dilution for Rocky Flats solids data	P521
Pyridine	F005	Analytical laboratory reagent	P076
Tetrachloroethylene	F002	Plutonium fabrication Depleted uranium fabrication Stainless-steel fabrication Analytical laboratory reagent	P052, P053, P520
Toluene	F005	Analytical laboratory reagent	P052, P076
Trichloroethylene	F002	Plutonium fabrication Beryllium and uranium fabrication Stainless-steel fabrication Analytical laboratory reagent Decontamination solvent	P023, P052, P053, P076, P520
Trichlorofluoromethane	F001 and F002	Component of Kester Residue Remover – Formula 5211 Detected as a TIC in headspace gas sampling	P540

RCRA Determinations

Historical Waste Management

The subject waste has historically been managed in accordance with INL waste management practices in compliance with the requirements imposed by the Idaho Department of Environment Quality. This waste has been historically managed as TRU mixed waste. In addition, this waste stream has been characterized by several different TRU waste programs. For this reason, the assignment of EPA Hazardous Waste Numbers (HWNs) to waste stream ID-RF-S3114 considered the EPA HWNs assigned by these programs in addition to the review of the AK record (References D005, D024, P052, P507, and P521).

Hazardous Waste Determinations

Ignitability, Corrosivity, Reactivity

Ignitability

The materials in this waste stream do not meet the definition of ignitability as defined in Title 40 of the Code of Federal Regulations, Part 261.21 (40 CFR 261.21). The materials are not liquid and absorbents were added to wastes having the potential of generating free liquids (i.e., dewatering of wastes) (References P015, P024, P501, and P503). The waste is not capable of causing fire through friction, absorption of moisture, or spontaneous chemical change

(References P012, P016, P024, and P501). The materials are not compressed gases, nor do the wastes contain compressed gases, and the waste is not an oxidizer (References P012, P013, P015, P016, P022, P024, and P501). Waste stream ID-RF-S3114 is therefore not an ignitable waste (D001).

Corrosivity

The materials in this waste stream do not meet the definition of corrosivity as defined in 40 CFR 261.22. The materials are not liquids and absorbents were added to wastes having the potential of generating free liquids (i.e., dewatering of wastes) (References P015, P024, P501, and P503). Waste stream ID-RF-S3114 is therefore not a corrosive waste (D002).

Reactivity

The materials in this waste stream do not meet the definition of reactivity as defined in 40 CFR 261.23. The materials are stable and will not undergo violent chemical change. The materials will not react violently with water, form potentially explosive mixtures with water, or generate toxic gases, vapors, or fumes when mixed with water. The materials do not contain cyanides or sulfides and are not capable of detonation or explosive reaction. The materials are not explosive, nor do the drums contain any explosives (References P012, P013, P015, P016, P022, and P024). Waste stream ID-RF-S3114 is therefore not a reactive waste (D003).

The containers in the waste stream will be evaluated in accordance with the WIPP-WAP using RTR and/or VE prior to shipment to ensure the waste is not ignitable, corrosive, or reactive.

Toxicity Characteristic

Waste stream ID-RF-S3114 exhibits the characteristic of toxicity for metal compounds as defined in 40 CFR 261.24. EPA hazardous waste numbers for metals were assigned to organic liquid wastes that may have been treated in Building 774, but have never been assigned to organic setups (IDC 003). Analysis of the organic setups waste conducted by the Rocky Flats and INL 3100 m³ TRU Waste Programs demonstrates that the UCL₉₀ does not exceed the RTL for any of the RCRA-regulated metals (References P507, P521, and U098). However, lead (D008) including lead tape, scrap lead, leaded rubber gloves, and lead seals, has been identified by RTR. Therefore, EPA hazardous waste number D008 is assigned to waste stream ID-RF-S3114 (Reference D024).

Waste stream ID-RF-S3114 exhibits the characteristic of toxicity for organic compounds as defined in 40 CFR 261.24. Chloroform (D022); 1,2-dichloroethane (D028); 1,1-dichloroethylene (D029); and nitrobenzene (D036) were identified as potential organic constituents in organic setups waste. Therefore, EPA hazardous waste numbers D022, D028, D029, and D036 are assigned to waste stream ID-RF-S3114 (Reference D005).

Although carbon tetrachloride (D019/F001), tetrachloroethylene (D039/F002), and trichloroethylene (D040/F002) are present in this waste above the RTL, these compounds were used as solvents (i.e., for cleaning and degreasing); and therefore, the F-listed EPA hazardous waste number is applied. The toxicity characteristic EPA hazardous waste numbers are not assigned.

Homogeneous solids sampling and analysis of organic setups was previously conducted by both the Rocky Flats and INL 3,100 m³ TRU Waste Programs. Based on the analytical data

from both programs, the UCL₉₀ exceeded the RTL for hexachloroethane (D034). Therefore, EPA hazardous waste number D034 is also assigned to waste stream ID-RF-S3114 (References P507, P521, and U098).

During the analytical data review of the "non-detect" observations for homogeneous solids data, Rocky Flats determined that the MDL exceeded the PRQL for cresols (D026), 1,4-dichlorobenzene (D027), 2,4-dinitrotoluene (D030), hexachlorobenzene (D032), and pentachlorophenol (D037) due to dilution. The dilution was due to high hydrocarbon content in the waste matrix that caused difficulties in analysis per the required methodology. Subsequent review of the solid sampling data and reconsideration of process knowledge confirms that cresols, 1,4-dichlorobenzene, 2,4-dinitrotoluene, hexachlorobenzene, and pentachlorophenol were not expected contaminants in this waste stream. Where a constituent has been identified and there is no or limited quantitative data available to demonstrate that the concentration of a constituent is below regulatory threshold levels, the applicable EPA HWN is applied to the waste stream. Therefore, EPA hazardous waste numbers D026, D027, D030, D032, and D037 are also assigned to waste stream ID-RF-S3114 (Reference P521).

Therefore, EPA hazardous waste numbers D008, D022, D026, D027, D028, D029, D030, D032, D034, D036, and D037 are assigned to this waste stream.

Listed Waste

F-Listed Waste

Waste stream ID-RF-S3114 was derived from the treatment of hazardous wastes from non-specific sources as listed in 40 CFR 261.31. Carbon tetrachloride, 1,1,1-trichloroethane, 1,1,2-trichloro-1,2,2-trifluoroethane, methylene chloride, tetrachloroethylene, trichloroethylene, trichlorofluoromethane, 2-ethoxyethanol, benzene, carbon disulfide, methyl ethyl ketone, pyridine, and toluene were used for their solvent properties, and therefore meet the definition of an F-listed waste. Therefore, EPA hazardous waste numbers F001, F002, and F005 are assigned to waste stream ID-RF-S3114 (References D005, P076, and P540).

During the analytical data review of the "non-detect" observations for homogeneous solids data, Rocky Flats determined that the MDL exceeded the PRQL for 1,2-dichlorobenzene (F002) due to dilution. The dilution was due to high hydrocarbon content in the waste matrix that caused difficulties in analysis per the required methodology. Review of the Rocky Flats solid sampling data and reconsideration of process knowledge confirms that 1,2-dichlorobenzene was not an expected contaminant in this waste stream. Where a constituent has been identified and there is no or limited quantitative data available to demonstrate that the concentration of a constituent is below regulatory threshold levels, the applicable EPA HWN is applied to the waste stream. Therefore, EPA hazardous waste number F002 for 1,2-dichlorobenzene is included in waste stream ID-RF-S3114 (Reference P521).

Flammable F003-listed solvents, acetone, ethyl benzene, ethyl ether, methanol, and xylene were used at Rocky Flats and are potential contaminants of the organic setups waste. Homogeneous solids and/or headspace gas data from the Rocky Flats and/or INL 3,100 m³ TRU Waste Programs detected acetone, butanol, methanol, and xylene in the organic setups waste. However, F003-listed solvents are listed solely for ignitability, and this waste stream does not exhibit the characteristic of ignitability because the solvents are not in liquid form. Therefore, this waste stream is not an F003-listed hazardous waste (References P052, P077, P507, and P521).

Nitrobenzene, an F004-listed constituent, was used for its solvent properties at Rocky Flats in 1967; however, this pre-dates the containers in this waste stream. Other documentation also identifies nitrobenzene as potentially present in IDC 003, but its specific use was not identified (References C517, D022, P052, and P538). Therefore, this waste stream is assigned EPA hazardous waste number D036 and is not an F004-listed hazardous waste.

K-Listed Waste

Waste stream ID-RF-S3114 does not contain hazardous waste from the specific sources in 40 CFR 261.32 and therefore is not a K-listed waste.

P- and U- Listed Waste

There is no documentation indicating that waste stream ID-RF-S3114 contains discarded commercial chemical products, off-specification species, container residues, or spill residues thereof (References P052, P077, P507, P521, and U099). This waste stream is therefore not a P- or U-listed hazardous waste as defined in 40 CFR 261.33.

Beryllium is regulated as a P-listed waste, but only as the commercial chemical product beryllium powder. Most of the beryllium used on site, primarily in Buildings 444 and 883, was in the form of metal (not powder). The exception is experimental work in Building 865 that involved pressing of the powder into shapes; however, only beryllium-contaminated oil from Building 865 was solidified. Therefore, waste stream ID-RF-S3114 is not a P015-listed waste (References P052 and P053).

The constituent 1,2-benzenedicarboxylic acid, bis (2-ethylhexyl) ester (Chemical Abstract Service [CAS] No. 117-81-7), also known as bis (2-ethylhexyl) phthalate, was detected as a tentatively identified compound (TIC) in Rocky Flats semi-volatile organic compound (SVOC) analysis of IDC 003. An evaluation to compare the TIC identification with AK was performed by Rocky Flats to determine if this TIC is a U-listed hazardous waste in this waste stream. This evaluation (which included the onsite use of bis [2-ethylhexyl] phthalate for filter testing and in vacuum pump oil) determined that this constituent was not present as an unused commercial chemical product. There is no evidence that bis (2-ethylhexyl) phthalate used on site for filter testing would have contributed to this waste stream; however, AK does indicate that the vacuum pump oil used in mass spectrometers in Buildings 707 and 777 may have been composed of this constituent and this oil may have been disposed of in the oil/solvent mixture feed to the Grease Plant process, but not as an unused product. Bis (2-ethylhexyl) phthalate is also a common plasticizer used in plastic, including the plastic bags/packaging used to package this waste. Accordingly, this waste stream is not a U028-listed hazardous waste (Reference P521).

Hydrofluoric acid (U134) was not identified as a potential chemical input to the waste stream.

Polychlorinated Biphenyls

Waste stream ID-RF-S3114 contains greater than 50 parts-per-million (ppm) polychlorinated biphenyls (PCBs) and is regulated as a Toxic Substances Control Act (TSCA) waste under 40 CFR 761. Based on written communications with the EPA, this waste is categorized as PCB Remediation Waste (References C505, C506, C519, C520, and P546).

Prohibited Items

Prohibited items potentially in this waste stream based on VE and RTR are sealed containers greater than four liters and liquids.

Based on a review of several waste packaging and inspection procedures, the drum and rigid liner lids were not vented, nor did the rigid liner lid contain a vent hole when the waste was shipped from Rocky Flats to INL (References P008, P026, P063, P064, P501, P502, P503, and P505). As the drums are retrieved for characterization, they are vented and aspirated to ensure equilibration of any gases that may have accumulated in the closed container.

Since this waste stream contains greater than 50 ppm PCBs, any residual liquids including containerized liquids, identified during RTR and/or VE are assumed to contain greater than 50 ppm PCBs (References P024, and U519). Certified RTR and/or VE are performed by CCP to ensure liquids do not exceed TSDF-WAC limits and to ensure the absence of sealed containers greater than four liters. Any container identified with liquids in excess of TSDF-WAC limits, or having unvented rigid liners will be segregated from the waste stream and will not be eligible for disposal at WIPP until the prohibited materials are removed and/or remediated (References P008, P024, P026, P063, P064, P501, P502, P503, P505, and U519).

Method for Determining Waste Material Parameter Weights per Unit of Waste

To estimate the waste material parameter weight percentages for waste stream ID-RF-S3114, data were obtained from CCP, AMWTP, and the WIPP Waste Information System (WWIS) database as of October 3, 2006. The CCP and AMWTP data were derived from RTR and VE of Rocky Flats absorbed organic liquid wastes by the CCP and AMWTP TRU waste certification programs at INL. The Rocky Flats WWIS data were derived from RTR and VE of Rocky Flats absorbed organic liquid wastes by the Rocky Flats TRU waste certification program.

A statistical analysis of the data was performed, the results of which are presented in Waste Stream ID-RF-S3114 Waste Material Parameters table.

Waste Stream ID-RF-S3114 Waste Material Parameters

Waste Material Parameter	Weight Percent	Weight Percent Range
Iron-based Metals/Alloys	0.53%	0 – 17.22%
Aluminum-based Metals/Alloys	0.0%	0 – 0.0%
Other Metals	<0.01%	0 – 2.44%
Other Inorganic Materials	1.96	0 – 7.28%
Cellulosics	0.02%	0 – 9.95%
Plastics (waste materials)	0.84%	0 – 5.06%
Rubber	<0.01%	0 – 8.36%
Organic Matrix	96.58%	75.65 – 100%
Inorganic Matrix	0.0%	0 – 0.0%
Soils/Gravel	<0.01%	0 – <0.01%

List of Any AK Sufficiency Determinations Requested for the Waste Stream

There are no AK sufficiency determination requests for this waste stream.

Transportation

This waste stream and its chemical constituents have been reviewed for consistency with listed TRUCON codes and they are consistent.

Beryllium

Beryllium may be present in the organic setups waste but only in particulate form as a trace contaminant. Analysis conducted by Rocky Flats shows that the UCL_{90} for beryllium in IDC 003 is 3.4 milligrams per kilogram (mg/kg) (Reference P521). Therefore, beryllium concentrations will be less than one percent by weight of the waste in each drum and less than 18.14 kilograms in any payload container, including ten drum overpacks.

Radionuclide Information

The radiological content of waste stream ID-RF-S3114 is based primarily on previous assay data. A summary of the potential radionuclides in waste stream ID-RF-S3114 has been compiled and provided in Waste Stream ID-RF-S3114 Radiological Characterization table. To determine isotopic ratios for waste stream ID-RF-S3114 as a whole, the average gram values for each radionuclide from the 3,100 m³ Project data were first multiplied by the number of events to obtain the total gram value for each individual radionuclide. These totals were then divided by the total mass of all radioactive constituents in the waste stream and converted to a percentage. These results are listed as "Relative Weight %." As shown in the table, the two most prevalent radionuclides are U-238 and Pu-239 (Reference C502, D009, D025, P507).

Waste Stream ID-RF-S3114 Radiological Characterization

Radionuclide	Average Weight (g)	Events	Total Weight (g)	Relative Weight %	Expected Present
WIPP Required Radionuclides					
Americium-241	5.37E-03	152	8.16E-01	0.05%	Yes
Plutonium-238	1.78E-04	152	2.70E-02	<0.01%	Yes
Plutonium-239	1.36E+00	152	2.07E+02	12.13%	Yes
Plutonium-240	8.37E-02	152	1.27E+01	0.75%	Yes
Plutonium-242	5.20E-04	152	7.91E-02	<0.01%	Yes
Uranium-233	3.43E-02	1	3.43E-02	<0.01%	Yes
Uranium-234	2.59E-04	48	1.24E-02	<0.01%	Yes
Uranium-238	7.03E+01	21	1.48E+03	86.53%	Yes
Cesium-137	N/A	N/A	N/A	N/A	Yes
Strontium-90	N/A	N/A	N/A	N/A	Yes
Other Measured Radionuclides					
Plutonium-241	2.32E-03	152	3.52E-01	0.02%	Yes
Uranium-235	1.34E-01	66	8.85E+00	0.52%	Yes
Other Potentially Present Radionuclides					
Americium-240	Californium-252	Neptunium-237	Thorium-228	Uranium-232	
Americium-243	Curium-244	Tritium (H-3)		Uranium-236	

Payload management will be implemented in accordance with the WIPP Waste Acceptance Criteria, Appendix E. Prior to 1982, TRU waste was defined as containing greater than 10 nCi/g TRU alpha contamination. In 1982, the DOE redefined TRU waste as materials contaminated with greater than or equal to 100 nCi/g TRU alpha. Much of the TRU wastes (based on these definitions) were shipped to the INL. This entire population has been managed as TRU waste since receipt at the INL (Reference P513). Based on historical assay data from the waste generator, the percentage of IDC 003 drums above 100 nCi/g is 36 percent, and the percentage of the drums below 100 nCi/g is 64 percent (Reference P512). Each payload container shipped to WIPP will be certified as containing more than 100 nCi/g of alpha emitting isotopes with half-lives greater than 20 years.

AK Source Documents

Source Document Number	Title
C032	External letter from J. K. Paynter to J. N. Davis, Idaho National Engineering Laboratory. Data Package Information Change for Drum D40197-0743-18283
C039	Internal Correspondence from J. K. Paynter to B. C. Barrett
C057	Drum, gasket, liner usage at RFP compiled by Larry Bearly
C086	Memorandum from Jeff Paynter to Pamela of IT Corporation. Use of the Complexing Agent DHDECMP
C130	Fax from Steve Cunningham, Rocky Flats, to Jeff Paynter
C134	Interview Record and associated documentation of several former Rocky Flats employees
C137	Interview Record of E. Putzier and E. Vejvoda by D. Herrick and J. Lamb
C154	Interview Record of W. V. Conner by T Widner and D. Lamb
C159	Interview Record of R. Hoffman by D. Herrick and J. Lamb
C170	Telecon between Al Morgan of Rocky Flats (retired) and Jeff Harrison
C171	Telecon between Bill Connor of Kaiser-Hill LATO and Jeff Harrison
C184	Interview Record of Al Morgan by Jeff Harrison
C185	Telecon between Bill Connor of LAPO and Jeff Harrison
C207	Summary of Review of PCB AK Sources
C502	Letter from John A. Ciucci to Joseph A. Legare. Resolution of Cesium-137 AK Discrepancy Between Rocky Flats Environmental Technology Site and Idaho National Engineering and Environmental Laboratory
C505	Letter from Cynthia Zvonar, Department of Energy Carlsbad Field Office, to Lou E. Roberts, Environmental Protection Agency
C506	Letter from John H. Smith, Environmental Protection Agency, to Lynne Smith, Department of Energy WIPP Office Director, EM-23
C510	E-mail Correspondence from Murthy Devarakonda to Michael Rivera. Subject: IDC 003 Packaging
C511	Record of Communication with Mark Crocker. Subject: OASIS Waste Packaging
C514	Email from Mike Rivera to Kathy Leonard, "WMF-633 ARP Drums"
C515	Email from Whitney St Michel to Barbara Broomfield, Vince Medina, Bill Verlanic, "RF-003 Treated Drums"
C516	Letter to Vincent C. Vespe, "Request for Approval - Shipments of Radioactive Waste in 55-Gallon Steel Drums"
C517	Earliest Pack Date for Rocky Flats Waste Retrieved From Pits 11 and 12
C518	Email from Jason P. Lance to Jim Vernon, "RF-743 Summary"
C519	Letter from Scott Raish, AMWTP, to Dave Wessman, U.S. DOE Idaho, "Toxic Substances Control Act Application for a Risk-Based Disposal Approval to Process Radiologically Contaminated Liquids Containing Polychlorinated Biphenyls-SCR-003-07"
C520	Letter from Michael Bussell, U.S. EPA, to David Wessman, U.S. DOE Idaho, "Approval of the (TSCA) RBDA Application for Management of Transuranic PCB Remediation Waste at AMWTP Facility"

Source Document Number	Title
C521	Memorandum to CCP Records: Waste Stream Volume Adjustment for Waste Stream ID-RF-S3114, Rocky Flats Organic Setups Waste, Shipped in 85-Gallon Drums
C522	Internal Memo re: Evaluation of Chemicals Used in the Sludge Repackage Project for Waste Streams ID-RF-S3114 and ID-RF-S3150-A, Rocky Flats Absorbed and Solidified Organic Liquids Waste
D004	Discrepancy Resolution for Waste Matrix Code Assignments for Waste Streams ID-RF-S3114 and ID-RF-S3150-A
D005	Discrepancy Resolution for EPA Hazardous Waste Number Assignments for Waste Streams ID-RF-S3114 and ID-RF-S3150-A, Rev. 1
D009	Discrepancy Resolution for Cs-137 and Sr-90 in Rocky Flats TRU Waster
D013	Discrepancy Resolution. Incorrect Waste Matrix Code
D014	Discrepancy Resolution. Incorrect Waste Matrix Code
D019	Discrepancy Resolution. Liquids Identified During Characterization
D022	Discrepancy Resolution. Solvent Use of Nitrobenzene
D023	Graphite in Waste
D024	Discrepancy Resolution. Addition of EPA Hazardous Waste Number D008 to Waste Stream ID-RF-S3114.
D025	Discrepancy Resolution. Addition of EPA Hazardous Waste Number D008 to Waste Stream ID-RF-S3150-A
M001	Memorandum to CCP Records: Addition of Containers to Waste Stream ID-RF-S3114
M003	RTR Analysis Report
M004	Material Safety Data Sheet for Fabric
P001	TRU Waste Compliance Program for WIPP-WAC (U)
P002	Organic and Sludge Immobilization System
P004	Rocky Flats Plant Waste Management Site Plan
P008	Packaging and Handling Line- and Nonline-Generated Materials (U)
P012	TRUPACT-II Content Codes (TRUCON)
P013	EG&G Sampling Program Results FY1987
P014	TRU Waste Certification Program for WIPP-WAC (U)
P015	TRU Waste Sampling Program: Volume I-Waste Characterization
P016	Idaho National Engineering Laboratory Code Assessment of the Rocky Flats Transuranic Waste
P020	Characteristics of Transuranic Waste at Department of Energy Sites

Source Document Number	Title
P022	EG&G Sampling Program Results FY1989
P023	(Task 5 Draft Report) Estimating Historical Emissions from Rocky Flats (Partial)
P024	Content Code Assessments for INEL Contact-Handled Stored Transuranic Wastes
P026	Transuranic Solid Waste Inspection (U)
P033	Summary of Transuranic Waste Characterization Programs at the INEL (1979-Present)
P043	TRU Waste Compliance Program for WIPP-WAC (U)
P052	Backlog Waste Reassessment Baseline Book
P053	(Tasks 3&4 Final Draft Report) Reconstruction of Historical Rocky Flats Operations and Identification of Release Points
P060	Waste Stream and Residue Identification and Characterization Building 707
P061	Waste Stream and Residue Identification and Characterization Building 771
P062	Waste Stream and Residue Identification and Characterization Building 779
P063	Packaging Wastes for Shipment Offsite (U)
P064	Waste Packaging Requirements
P066	Material Safety Data Sheets for Envirostone Accelerator, Envirostone Emulsifier, and Envirostone Gypsum Cement
P069	Nuclear Materials Control Elements printout. SAN Database Report
P076	Waste Stream and Residue Identification and Characterization Building 559
P077	Waste Stream Residue Identification and Characterization Building 774
P078	Waste Stream Residue Identification and Characterization Building 776
P079	Waste Stream Residue Identification and Characterization Building 777
P081	Waste Stream Residue Identification and Characterization Building 371
P082	Waste Stream Residue Identification and Characterization Building 374
P084	Material Safety Data Sheet for Varsol 1
P089	Waste Systems Progress Report March 1984 through February 1985
P090	History of Rocky Flats Waste Streams
P091	Materials Hazards Manual
P142	Material Safety Data Sheet for ZL-22A Zyglo Penetrant
P152	Plutonium Metal Feed Specification for Use in the Weapons Program. Volume 1
P161	Dose Reconstruction Project Task 5
P164	A History of The Rocky Flats Plutonium/Actinide Recovery Plant 1952-1991
P166	Rocky Flats Risk Assessment Guide
P167	Neptunium Processing at the Rocky Flats Plant
P169	Plutonium Isotopic Ratios at Rocky Flats
P178	Research and Development Quarterly Progress Report. October, November, and December 1968
P179	Research and Development Quarterly Progress Report. April, May, and June 1969

Source Document Number	Title
P180	Research and Development Quarterly Progress Report. July, August, and September 1969
P181	Research and Development Quarterly Progress Report. January, February, and March 1970; Chemistry
P182	Research and Development Quarterly Progress Report. April, May, and June 1970; Chemistry
P183	Research and Development Quarterly Progress Report. July, August, and September 1970; Chemistry
P184	Research and Development Quarterly Progress Report. October, November, and December 1970; Chemistry
P185	Research and Development Quarterly Progress Report. January, February, and March 1971; Chemistry
P186	Research and Development Quarterly Progress Report. April, May, and June 1971; Chemistry
P187	Research and Development Quarterly Progress Report. July, August, and September 1971
P188	Research and Ecology Annual Report. Chemistry Research and Development
P189	Research and Ecology Semi-Annual Progress Report January – June 1972
P190	Research and Ecology Semi-Annual Progress Report. Chemistry Research and Development. July through December 1972
P191	Research and Ecology Semi-Annual Progress Report. Chemistry Research and Development. January-June 1973
P192	Research and Ecology Semi-Annual Progress Report. Chemistry Research and Development. July-December 1973
P193	Research and Development Semi-Annual Progress Report for July through December 1974; Chemistry
P194	Research and Development Semi-Annual Progress Report for January through June 1975
P195	Research and Development Semi-Annual Progress Report for January through June 1977
P196	Chemistry Research and Development Annual Progress Report November 1, 1979 through October 31, 1980
P197	Chemistry Research and Development Annual Progress Report November 1, 1980 to September 30, 1981
P198	Chemistry Research and Development Annual Progress Report. October 1, 1981 to September 30, 1982
P199	Chemistry Research and Development Annual Progress Report October 1, 1982 to September 30, 1983
P200	Chemistry Research and Development Annual Progress Report October 1, 1983 to September 30, 1984
P201	Chemistry Research and Development Annual Progress Report October 1, 1984 through September 30, 1985
P202	Chemistry R&D Monthly Progress Report

Source Document Number	Title
P210	Default Plutonium Mass Fractions for Rocky Flats Plant Waste
P227	Plutonium Mass Fractions Derived from SGRS Data
P501	Packaging Waste for Shipment Offsite
P502	Packaging and Handling Plutonium Wastes and Residues
P503	Packaging Wastes for Shipment Off-Site
P504	Packaging Waste for Shipment Offsite
P505	Procedure for Packaging and Handling Pu Waste and Residue Drums
P507	Acceptable Knowledge Document for INEEL Stored Transuranic Waste – Rocky Flats Plant Waste
P508	Radioactive Waste Management Complex Map Drawing
P509	Radioactive Waste Management Complex – Idaho Completion Project
P512	Waste Description Information for Transuranically Contaminated Wastes Stored at Idaho National Engineering Laboratory.
P513	Determination of Radioisotopic Content In TRU Waste Based on Acceptable Knowledge.
P515	Estimated Earthen and Geofabric Covered TRU Waste Inventory in the TSA at Radioactive Waste Management Complex (RWMC)
P516	Advanced Mixed Waste Treatment Project Waste Stream Designations
P517	Material Safety Data Sheet, Micro-Cel® E (All Grades)
P518	Material Safety Data Sheets for Various Texaco Oils and Shell Vitrea M Oil
P519	Waste Systems Progress Report March 1983 through February 1984
P520	Building Histories for Building 371, 444, 447, 460, 707, 771, 776/777, 881, 883, and 991 Historical Release Report (HRR)
P521	Rocky Flats Environmental Technology Site WIPP Waste Stream Profile Form, TRM Solidified Organic Waste
P522	Rocky Flats Environmental Technology Site WIPP Waste Stream Profile Form, TRM Solidified Organic Waste
P524	Determination of H2 Diffusion Rates through Various Closures on TRU Waste Bag-Out Bags
P532	Summary of Rocky Flats Waste Buried in the Subsurface Disposal Area
P534	Shipment And Disposal Of Solidified Organic Waste (Waste Type IV) TO The Waste Isolation Pilot Plant (WIPP), Presented at WM'06 Conference, February 26-March 2, 2006, Tucson, AZ.
P535	Drum Treatment Facility Operations
P536	Visual Examination of S3000 Waste in the Facility

Source Document Number	Title
P537	Subsurface Disposal Area (SDA) Waste Identification (1952-1970 Emphasis)
P538	Colorimetric Determination of Iron in Plutonium Metal Using a Nitrobenzene Extraction Technique
P539	Acceptable Knowledge Document for INL Stored Transuranic Waste – Rocky Flats Plant
P540	Acceptable Knowledge Re-evaluation Checklist, CCP-TP-005, Attachment 10, 3/28/06
P541	WMF-615 Filter Insertion Operations
P542	SRP DPS Waste Packaging
P543	SRP RA V Waste Processing
P544	WMF-1617 SRP-Support Systems
P545	RWMC Waste Handling and Overpacking
P546	Risk-Based Disposal Approval Application for Management of Polychlorinated Biphenyl (PCB) Remediation Waste Contaminated with Transuranic Radioisotopes at the Idaho Cleanup Project (ICP) Accelerated Retrieval Project V (ARP V) Facility
P547	RWMC-55 Gallon Drum Assembly
U010	OASIS Solidification and Off Gas Analysis
U040	Building 774 Low Level Organic and TRU-Waste Organic Waste Log Book.
U043	Building 774 Set Up Log Book
U059	Drum Prefix Numbers and Corresponding Material Balance Areas
U064	Radioactive Materials Associated with Rocky Flats
U069	Drum Prefix Issue Dates Log Book
U092	Inventory values as generated by TRIPS Change Request (TCR) 1821
U098	Preliminary data for the IDC 003 waste stream
U099	Draft Waste Stream Profile Form – Solidified Organics and Supporting Documentation
U505	Rocky Flats Prefix History Timeline
U517	Advanced Mixed Waste Treatment Project (AMWTP) Visual Examination (VE) Data Sheets
U518	Advanced Mixed Waste Treatment Project (AMWTP) Glove Box Glove Specifications
U519	Excerpts of CCP Nonconformance Reports (NCRs) for Prohibited Liquids
U520	Att 1 - CCP Waste Visual Examination Technique Data Form SCO#798 Addendum 5 Windows XP 2002 MS Excel 2003