

Zappe, Steve, NMENV

From: Fesmire, Courtland - DOE [Court.Fesmire@wipp.ws]
Sent: Thursday, February 17, 2011 1:50 PM
To: Zappe, Steve, NMENV
Cc: Site Documents - DOE; Greenwood, Trey
Subject: FW: State Hazardous Waste Codes
Attachments: DR010.pdf

Number 2

Courtland Fesmire, P.E.
Carlsbad Field Office
US Department of Energy
575-234-7548 office
575-706-0044 cell
575-234-7061 fax

From: Greenwood, Trey
Sent: Wednesday, February 16, 2011 2:41 PM
To: Fesmire, Courtland - DOE
Subject: FW: State Hazardous Waste Codes

Court,

Here is the DR we referenced in the AK report. The DR contains and email from the Hanford waste group discussing application of the codes.

Trey Greenwood
Technical Specialists
Acceptable Knowledge



Attachment 11 – Acceptable Knowledge Source Document Discrepancy Resolution

Waste Stream Number(s): MPFPDD

Waste Stream Description: TRU mixed heterogeneous debris resulting from production, maintenance, cleanout, stabilization, and decontamination and decommissioning (D&D) at the Hanford Plutonium Finishing Plant (PFP)

AK Documentation Type: <input checked="" type="checkbox"/> TRU Waste Management Program Information <input checked="" type="checkbox"/> Waste Stream Specific Information <input checked="" type="checkbox"/> Supplemental Information							
AK Source Document Discrepancy Form Tracking Number: DR010 Rev. 1 – Discrepancy Resolution for Waste Stream Delineation and Assignment of EPA HWN (MPFPDD)							
Tracking #	Category ^a	Title	Document/Rev #	Author	Date	Publisher	Page #
N/A	Pub.	Hanford Plutonium Finishing Plant (PFP) Contact-Handled Transuranic Debris Waste From Decontamination and Decommission, Waste Stream MPFPDD	CCP-AK-RL-101, Rev. 0	L. Porter	8/6/2009	CCP	All
N/A	Pub.	Hanford Plutonium Finishing Plant (PFP) Contact-Handled Transuranic Debris Waste From Decontamination and Decommission, Waste Stream MPFPDD	CCP-AK-RL-101, Rev. 1	L. Porter	1/15/2010	CCP	All
N/A	Pub.	Hanford Plutonium Finishing Plant (PFP) Contact-Handled Transuranic Debris Waste, Waste Stream MPFPDD	CCP-AK-RL-101, Rev. 2	L. Porter	3/29/2010	CCP	All
N/A	Pub.	Acceptable Knowledge Document for the Richland Mixed Plutonium Finishing Plant Comprehensive Debris Waste Stream, RLMFPD	HNF-36515, Revision 1	D.I. Rolloson	6/5/2009	N/A	All
N/A	Pub.	Acceptable Knowledge (AK) Document for Plutonium Finishing Plant Debris Waste Stream MPFPD	HNF-6489, Revision 1	M.I. Rolloson	9/15/2006	Hanford Site	All

CCP-TP-005, Rev. 18
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Tracking #	Category ^a	Title	Document/Rev #	Author	Date	Publisher	Page #
N/A	Pub.	Acceptable Knowledge Document for Rocky Flats Incinerator Ash Waste Stream RFETS01	HNF-30022, Rev. 1	M. H. Conilogue	12/2006	Hanford Site	All
P234	Pub.	Waste Minimization Plan Plutonium Finishing Plant	WHC-SD-WM-EV-023, Rev. 1	E. G. Backlund	1/12/1993	Hanford Site	10
P094	Pub.	231-Z Building Documented Safety Analysis	CP-14640, Rev 1	Fluor Hanford	10/2005	Hanford Site	94
P196	Pub.	241-Z-361 Sludge Characterization Sampling and Analysis Plan	HNF-4371, Rev. 1	N/A	7/29/1999	Hanford Site	79
M056	Unpub.	Review of PFP Complex Effluents AK/Designation and Applicability of WAC 173-303-090(7) and 40 CFR 261.23	TRU-SPO-11.4.4-04032008-27919	John Evans	4/12/2007	N/A	1

Nature of Discrepancy (and Brief Summary of the Resolution):

- 1) The previous Hanford certified TRU Waste Program established three PFP generated debris waste streams, all assigned different EPA hazardous waste numbers (HWNs). These three waste streams are NPFPPD, MPFPD, and RLMFPD. The CCP waste stream defined in CCP-AK-RL-101, R. 2, (waste stream MPFPDD) is identical to the latest Hanford established PFP waste stream RLMFPD in terms of time period of generation, areas of generation, and assigned EPA HWNs. This Discrepancy Resolution provides the rationale for delineating a single waste stream for the remaining inventory of PFP generated debris waste to be characterized by CCP.
- 2) The previous Hanford certified TRU Waste Program assigned F003 and other Washington State codes to PFP generated debris waste, and CCP has not assigned F003 or any Washington State codes to MPFPDD. Recent information clarifies that Washington State codes are only applicable to waste that is not hazardous under Federal RCRA. Since MPFPDD is a RCRA hazardous waste, no Washington State codes are assigned.
- 3) CCP-AK-RL-101 Rev. 1 identified chlorodifluoromethane as an F001 constituent in waste stream MPFPDD. Although source documents identify this constituent, it is a gas and EPA HWN F001 should not be assigned to for this constituent. The assignment of F001 for chlorodifluoromethane has been removed from Rev. 2 of CCP-AK-RL-101. F001 is assigned to waste stream MPFPDD for other constituent.
- 4) CCP-AK-RL-101 Rev. 1 identified a potential for cyanides or sulfides in waste stream MPFPDD. Further research shows there is no indication of cyanides or sulfides in this waste stream and the statements indicating this waste may contain cyanides or sulfides have been removed from CCP-AK-RL-101, Rev. 2.
- 5) CCP-AK-RL-101, Rev. 2 assigns EPA HWN F001 to waste stream MPFPDD. EPA has provided a regulatory clarification that the F001 listing is only appropriate when the listed solvents are used in a "large-scale" degreasing operation. F001 code is being carried forward for this waste to be consistent with similar, previous Hanford waste characterization, and due to the potential mixture with F001 ash waste from Rocky Flats Environmental Technology Site (RFETS).

Resolution:

- 1) The previous Hanford certified TRU Waste Program established three PFP generated debris waste streams, all assigned different EPA hazardous waste numbers (HWNs).

The WIPP-WAP defines a waste stream as waste material generated from a single process or from an activity that is similar in material, physical form, and hazardous constituents. One CH TRU debris waste stream has been delineated by CCP for the PFP facility according to this definition. The MPFPDD waste stream consists of mixed heterogeneous debris generated by production, maintenance, cleanout, stabilization, and D&D activities in PFP Buildings.

Attachment 1 summarizes the EPA HWN assigned to the PFP waste streams. The previous Hanford certified TRU Waste Program was able to isolate subpopulations of the PFP debris waste stream as either non-hazardous or non-F-listed; However, based on the chronology of the development of the Hanford AK documents, and based on time periods of waste generation and areas of the PFP where the waste was generated, the Hanford certified TRU Waste Program did not intend to maintain the non-mixed or the non-F-listed waste streams. The Hanford AK document HNF-36515, Rev. 1, issued June 5, 2009, identifies waste stream RLMPFPCD being generated from 1970 to present, and includes waste from PFP Buildings 232-Z, 234-5Z, 236-Z, 242-Z, 2736-ZB, 291-Z, and PFP's ancillary facilities and effluent infrastructure. This Hanford waste stream is identical to the CCP defined waste stream MPFPDD in terms of time period of generation, areas of generation, and assigned EPA HWNs.

Although the Hanford certified TRU program was able to segregate subpopulations of this waste stream based on container specific documentation and generator characterization, CCP agrees that this segregation is not a defensible position for the characterization of the remaining inventory of PFP debris waste. The review of source documents identified in Table 5-6 of CCP-AK-RL-101, R.2 found several cases where potentially F-listed solvents were used in PFP facilities, but the source documents did not provide any information to identify the specific containers of F-listed waste. For example, source document P234 is a 1993 document describing waste minimization at the PFP. Figure 2 of P234 identifies pyridine as a chemicals in use at the PFP, but the document does not identify how or where pyridine was used, and there is only general reference to solidification or absorption of spent liquids prior to disposal in 55-gallon drums. Without an identified non-solvent use and without specific information regarding the final disposition of the spent material, CCP's characterization practice is to conservatively assigned EPA HWN F005 to the PFP debris waste stream for pyridine. There are several other instances identified in Table 5-6 where F-listed EPA HWN numbers are assigned to PFP debris waste, and this HWN assignment supports a single PFP waste stream. Additionally, Hanford has and continues to repackage waste defined under the previous certified TRU Waste Program as RLMPFPCD waste at T Plant and in the WRAP facility. These repackaging activities may cross contaminate waste from multiple containers currently identified in the RLMPFPCD waste stream. For these reasons, the segregation of PFP debris waste into more than one waste stream is not defensible.

- 2) The previous Hanford certified TRU Waste Program assigned F003 and other Washington State codes to PFP wastes, and CCP-AK-RL-101 R.2 does not identify F003 or any Washington State codes for waste stream MPFPDD.

Based on recently obtained information, Washing State has clarified that Washington State codes are only applicable to waste that is otherwise not hazardous under federal RCRA. Since MPFPDD is a RCRA hazardous waste and it is assigned EPA HWNs D004, D005, D006, D007, D008, D009, D010, D011, D022, D030, F001, F002, F004, and F005, no Washington State codes are assigned. Attachment 2 to this DR is an email providing support for not assigning Washington State codes.

- 3) CCP-AK-RL-101 Rev. 1 identified chlorodifluoromethane as an F001 constituent in waste stream MPFPDD, and Rev., 2 does not.

Although source documents identify this constituent, it is a gas and EPA HWN F001 should not be assigned to for this constituent. Since the constituent is a gas it could not have been used as a solvent for degreasing. F001 has been removed for chlorodifluoromethane in Rev. 2 of CCP-AK-RL-101.

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Resolution (Continued):

4) CCP-AK-RL-101 Rev. 1 identified a potential for cyanides and sulfides in waste stream MPFPDD, and this statement has been removed from CCP-AK-RL-101 Rev. 2

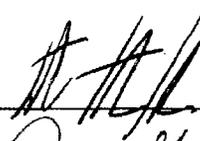
The statements found in CCP-AK-RL-101 Rev. 1 regarding cyanides and sulfides were based on source documents P094, P196, and M056. P094 is applicable only to the 231-Z building and is not applicable to PFP. P196 discusses sampling and analysis for cyanides, and states that the sampling and analysis is required for regulatory purposes. P196 does not indicate the potential presence of cyanides or sulfides in PFP waste. M056 concludes that cyanide was never used in the process that generated the PFP Complex Effluent waste, and that sample analysis results concur that cyanides are not present at detectable levels. The further review of these source documents does not show indication of cyanides or sulfides in this waste stream and the statement regarding the potential presence of cyanides and sulfides has been removed from CCP-AK-RL-101, Rev. 2.

5) CCP-AK-RL-101, Rev. 2 assigns EPA HWN F001 to waste stream MPFPDD. EPA has provided a regulatory clarification that the F001 listing is only appropriate when the listed solvents are used in a "large-scale" degreasing operation.

Although no PFP activities are specifically identified that meet EPA guidance for "large-scale" degreasing, the F001 code is being carried forward for this waste to be consistent with similar, previous Hanford waste characterization for waste that has already been shipped to WIPP, and due to the potential mixture and/or contamination with F001 ash waste from Rocky Flats Environmental Technology Site (RFETS). Hanford performed unsuccessful pilot testing of RFETS ash in 1983, and 400 containers of RFETS ash were sent to Hanford between 1985 and 1986. The ash was eventually reburned and repackaged at the PFP and shipped to WIPP. PFP TRU debris may be mixed with RFETS ash and PFP TRU debris waste is therefore conservatively assigned the same EPA HWN as the RFETS ash. Attachment 3 identifies RFETS activities that meet the EPA guidance for "large-scale" degreasing. Any of the activities listed in Attachment 3 could have resulted in items sent to the RFETS incinerator.

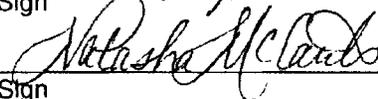
Discrepancy Resolved: Yes No

Acceptable Knowledge Expert: Steve Schafer
Print


Sign

Date: 4/7/2010

Site Project Manager: NATASHA MCCANTS
Print


Sign

Date: 04.07.2010

^a Published Document or Controlled Database (Pub.); Unpublished Data (Unpub.); Internal Procedure or Note (Proc.); Correspondence (Corr.) or Discrepancy (Disc.)

DR010 - Attachment 1
CCP and Hanford PFP Waste Streams and Assigned EPA HWN

Constituent	Code	Hanford				CCP		
		NPFDD	MPFDD R.1	RLMPFPCD R.0	RLMPFPCD R.1	MPFDD R.0	MPFDD R.1	MPFDD R.2
Arsenic	D004		X	X	X	X	X	X
Barium	D005		X	X	X	X	X	X
Cadmium	D006		X	X	X	X	X	X
Chromium	D007		X	X	X	X	X	X
Lead	D008		X	X	X	X	X	X
Mercury	D009		X	X	X	X	X	X
Selenium	D010		X	X	X	X	X	X
Silver	D011		X	X	X	X	X	X
Chloroform	D022			X	X	X	X	X
2,4-Dinitrotoluene	D030		X	X	X	X	X	X
Carbon tetrachloride	F001			X	X	X	X	X
Carbon tetrachloride	D019		X					
Chlorodifluoromethane	F001						X	
1,1,1-Trichloroethane	F001, F002					X	X	X
Tetrachloroethylene	F001, F002			X	X	X	X	X
1,1,2-Trichloro-1,2,2-trifluoroethane	F001, F002					X	X	X
Methylene chloride	F001, F002			X	X	X	X	X
Trichlorofluoromethane	F001, F002			X	X	X	X	X
Trichloroethylene	F001, F002			X	X	X	X	X
Nitrobenzene	F004				X	X	X	X
Benzene	F005			X	X	X	X	X
Carbon disulfide	F005					X	X	X
Methyl ethyl ketone	F005				X			
Pyridine	F005				X	X	X	X
Toluene	F005			X	X	X	X	X

DRC10 ATTACHMENT 2

Ramirez, Amanda J

From: Ramirez, Amanda J
Sent: Wednesday, April 07, 2010 11:15 AM
To: Bisping, Scott W
Cc: Austin, Richard L; Triner, Glen C
Subject: RE: Hanford TRU waste designation policy concerning Washington State dangerous waste numbers.

Scott,

The codes identified below are only applicable to waste being **disposed** in the State of Washington. If waste containing Washington codes is shipped to another state for disposal these codes are dropped and no longer valid. Only the federal codes will remain.

codes only apply to waste being disposed in the State of Washington:

WT01 Toxicity criteria (EHW)
WT02 Toxicity criteria (DW)
WP01 Persistence criteria halogenated organic carbons (EHW)
WP02 Persistence criteria halogenated organic carbons (DW)
WP03 Persistence criteria polycyclic aromatic hydrocarbon (EHW)
WSC2 (acid or base)
WPCB PCBS not regulated by TSCA
F003 ignitibility characteristic based upon criteria

Thanks,

Amanda Ramirez
WSS Technical Services Manager
509-373-9348
MO2155, 106, MSIN T4-06

DR010 - Attachment 3
RFETS Large-Scale Degreasing

From: Mike Papp [mailto:mj_papp@msn.com]
Sent: Monday, March 01, 2010 2:52 PM
To: 'Steve Schafer'; 'Nance, Sheri A'; 'Sheri Nance'; 'Scott Bisping'; 'Scott Bisping'; 'Travis Smith'; 'Kevin Peters'; 'Jeff Harrison'
Cc: 'Jim Schoen'
Subject: RE: F001 at Hanford

Steve and Co,

If it helps, Jim and I identified a few RFETS processes that we feel meet the definition of large-scale degreasing. Of course these processes affected downstream processes and recovery operations (e.g., incineration). Please let me know if you have any questions. Thanks.

444-21 R and D Plating: Line 5 - This waste stream consists of 1,1,1-trichloroethane which is used in the vapor degreaser.

460-16 Aqueous Cleaning - Process consists of immersing parts in a bath of 1,1,1-Trichloroethane (TCA). The parts are then subjected to a TCA Vapor Degreasing Process.

707-23 Briquetting - This operation included a series of baths containing carbon tetrachloride used to clean metal turnings and scrap. Used solvent was filtered by Ful-Flo filters which could have been sent to recovery operations (e.g., incineration). Waste solvent was piped to process 707-27 for treatment.

707-27 C-Pit, Carbon Tetrachloride, and Trichloroethane Collection Systems - This operation collected and filtered carbon tetrachloride, trichloroethane, Freon, and other solvents/oils from various baths and ultrasonic cleaning systems in Building 707. Solvents regardless of use were piped to this system (i.e., solvents used for their solvent properties, solvents used as coolants, etc.). Used solvent was filtered by Ful-Flo filters which could have been sent to recovery operations (e.g., incineration). Filtered solvent was sent to Building 774 for treatment.

777-4 Briquetting - This operation included a series of baths containing carbon tetrachloride used to clean metal turnings and scrap. Used solvent was filtered by Ful-Flo filters which could have been sent to recovery operations (e.g., incineration). Waste solvent was piped to process 777-12 for treatment.

777-12 Carbon Tetrachloride System - Carbon tetrachloride and other solvents were piped to this system to recovery actinide materials. Solvents regardless of use were piped to this system (i.e., solvents used for their solvent properties, solvents used as coolants, etc.). Used solvent was filtered by Ful-Flo filters which could have been sent to recovery operations (e.g., incineration). Filtered solvent was sent to Building 774 for treatment.

777-14 TCA Collection and Filter System - This operation collected and filtered trichloroethane from several ultrasonic wash tanks in Building 777. Used solvent was filtered by Ful-Flo filters which could have been sent to recovery operations (e.g., incineration). Filtered solvent was sent to Building 774 for treatment.

777-16 Coating Laboratory -- This operation used a combination ultrasonic cleaner/vapor degreaser which used trichloroethane to clean materials. Waste trichloroethane was piped to the process 777-14 for treatment.

Michael J. Papp, CCP AKE