



Department of Energy

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

JUN 2 2 2011



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

Subject: Update for the WIPP Operating Record (Change Notice #1) Heterogeneous Sludge from the Subsurface Disposal Area (ID-SDA-SLUDGE, REVISION 1)

Dear Mr. Kieling:

The Department of Energy, Carlsbad Field Office (CBFO) has approved the Waste Stream Profile Form Change Notice #1 for Heterogeneous Sludge from the Subsurface Disposal Area (ID-SDA-SLUDGE, Revision 1) by the Central Characterization Project (CCP) at the Idaho National Laboratory (INL).

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

If you have questions on this matter, please contact J. R. Stroble at (575) 234-7313.

Sincerely,

Edward Ziemianski Acting Manager

Enclosure

cc: w/enclosure T. Hall, NMED J. Davis, NMED	* ED ED
cc: w/o enclosure J. R. Stroble, CBFO N. Castaneda, CBFO C. Fesmire, CBFO G. Basabilvazo, CBFO S. McCauslin, CBFO D. Toft, CTAC CBFO, M&RC *ED denotes electronic dis	ED ED ED ED ED ED



Update for WIPP Operating Record (Change Notice #1)

Heterogeneous SLUDGE from the Subsurface Disposal Area

(ID-SDA-SLUDGE Revision 1)

Please add the following information to the WIPP operating record for Waste Stream Profile Form (WSPF) ID-SDA-SLUDGE revision 1. This waste stream is Homogeneous Solids from the Subsurface Disposal Area at Idaho National Laboratory (INL) and was approved by DOE/CBFO on November 25, 2008.

This WSPF is being revised. The WSPF components are bolded. The updates are:

1. WSPF, Date of audit report approval by NMED

Update the audit approval date to include September 11, 2009, October 20, 2010

2. WSPF, Title, version, number, and date of documents used for WAP certification

Update the following procedure revision numbers and approval dates:

CCP-PO-001, CCP Transuranic Waste Characterization Quality Assurance Project Plan, Revision 19, December 29, 2010.

CCP-PO-002, CCP Transuranic Waste Certification Plan, Revision 25, December 29, 2010

CCP-PO-024, CCP/INL Interface Document, Revision 10, December 29, 2010

3. WSPF, Waste Stream Information, Number of Drums and Number of SWBs

Update the Number of Drums from 25,013 to 32,943.

4. WSPF, Required Program Information, Required Waste Stream Information, and Supplemental Documentation

Update reference CCP-AK-INL-001, Rev.7, October 27, 2008 to CCP-AK-INL-001, Rev. 10, February 16, 2011.

5. Characterization Information Summary, CCP RTR/VE Summary of Prohibited Items and AK Confirmation, new section entitled Justification for the Selection of Radiography or VE

The following information will be added to the last cell in the table Both Radiography and VE are used to characterize containers in waste stream ID-SDA-SLUDGE, Rev. 1. RTR is selected as a characterization method because some of the containers are already packaged and RTR meets all the Data Quality Objectives for NDE for previously package waste in this waste stream. VE is selected as a characterization method because VE meets all the Data Quality Objectives for NDE for newly generated waste in this waste stream.

6. Summation of Aspects of AK Summary Report: ID-SDA-SLUDGE, Waste Stream Identification Summary, Waste Stream Volume:

Update the waste stream volume from 6,047 to 15,908 55-gallon drums (current), 18,966 to 17,035 55-gallon drums (projected):

7. Summation of Aspects of AK Summary Report: ID-SDA-SLUDGE, Generating Process, Idaho National Laboratory, Other INL Generating Facilities:

Add the following bullets to the list of facilities:

- INTEC-602/630 and RWMC WMF-TR-14 Modular Analytical Laboratory- Laboratory
 wastes (including unaltered sample material) from INTEC/RWMC laboratory support
 operations are generated from analyzing the soil and homogeneous solid samples
 collected by ARP or ARP waste but do not include unaltered sample material or
 laboratory waste generated in support of characterizing waste streams or samples
 submitted by other generators. The processes that generate the wastes are the same for
 both INTEC and RWMC.
- Glove box Excavator Method (GEM) Project (within the SDA) GEM waste forms are analogous to those in the ARP in terms of form and time spent buried.
- 8. Summation of Aspects of AK Summary Report: ID-SDA-SLUDGE, RCRA Determinations - Hazardous Waste Determinations New Section Entitled Historical Waste Management

Add to the first paragraph of the RCRA section.

Waste disposal at the SDA ceased in 1970 when the AEC directed that all waste contaminated with TRU radioisotopes be segregated in a readily retrievable manner from other types of radioactive waste. In August 1987, DOE and the EPA entered into a Consent Order and Compliance Agreement requiring DOE to conduct an initial assessment of all solid and hazardous waste disposal units at the INL and set up a process for conducting any necessary corrective actions. The DOE, EPA, and Idaho Department of Environmental Quality (IDEQ) entered into the "Federal Facility Agreement and Consent Order for the Idaho National Engineering Laboratory" (FFA/CO) in December 1991. The FFA/CO, in part, established the framework for developing, prioritizing, implementing, and monitoring appropriate response actions at INL in accordance with the CERCLA, RCRA, and Hazardous Waste Management Act (HWMA). In addition, the DOE had made other commitments to the State of Idaho and the EPA in a 1995 Settlement Agreement that was renegotiated and amended in 2008. The final agreement required DOE to exhume targeted waste from a defined area of the SDA of 5.69 acres. The "Agreement to Implement U.S. District Court Order Dated May 25, 2006" fully implements the 1995 Settlement Agreement relating to buried TRU waste in the SDA and set the Targeted Waste to those outlined in this AK Summary Report (References ID-P091, ID-P104, ID-P108, ID-P109, and ID-P124).

The subject waste stream is newly generated and is being managed in accordance with the generator site requirements and in compliance with the requirements of the IDEQ. EPA hazardous waste numbers (HWNs) were assigned to the waste stream based on a review of available AK documentation to identify chemical usage and potentially hazardous materials that

may have been contained in the waste buried in the retrieval area. The same EPA HWNs are assigned to Waste Stream ID-SDA-SLUDGE Rev.1.

9. Summation of Aspects of AK Summary Report: ID-SDA-SLUDGE, new section entitled Justification for the Selection of Radiography or VE

This section should be added between the Prohibited Items and Method for Determining Waste Material Parameter (WMPs) Weights Per Unit of Waste sections.

Both Radiography and VE are used to characterize containers in waste stream ID-SDA-SLUDGE, Rev. 1. RTR is selected as a characterization method because some of the containers are already packaged and RTR meets all the Data Quality Objectives for NDE for previously package waste in this waste stream. VE is selected as a characterization method because VE meets all the Data Quality Objectives for NDE for newly generated waste in this waste stream.

10. Summation of Aspects of AK Summary Report: ID-SDA-SLUDGE, RCRA Determinations- Hazardous Waste Determinations, Ignitability, 2nd paragraph.

Before the last sentence add the following information to the 2nd paragraph of the Ignitability Section: Evaporator salts (745-series sludge) are composed of an approximately 90 weight percent mixture of potassium nitrate and sodium nitrate, and in concentrated form this material is an oxidizer. For this reason, 745-series sludge is removed from the waste during retrieval and packaging operations so the waste stream does not meet the definition of an oxidizer (References ID-P269, ID-P398 and ID-P400).

11. Summation of Aspects of AK Summary Report: ID-SDA-SLUDGE, Attachment 1, AK Source Documents-Supplemental Documentation

Add the following references to attachment 1:

ID-P269, AK # S2, S4, ARP Project II - Drum Packaging System, Document Number TPR-7415-2, Rev. 3, 06/20/2007

ID-P398, AK #, S5 and S12 Results of Oxidizing Solids Testing, Document Number EMRTC Report FR 10-13, 4/12/2010

ID-P400, AK #, S9 and S12 Allowable Nitrate Salt Concentration in ARP Waste, Document Number EDF-8723, Rev. 2, 6/30/2010

Reason/justification for the change

The audit report approval date has been revised to reflect the most recent approval date.

Documents used for WAP certification have been revised to reflect the most recent revisions.

Reference to CCP-AK-INL-001, Revision 7, October 27, 2008 is being updated to reflect the most current version CCP-AK-INL-001, Revision 10, February 16, 2011.

Changes to the waste volume have been made in order to more accurately reflect waste generated since the original profile was approved, as well as to support waste generated from the INTEC-602/630 and RWMC WMF-TR-14 Modular Analytical Laboratory and the GEM Project.

The INTEC-602/630 and RWMC WMF-TR-14 Modular Analytical Laboratory has been added to the generating facilities as a support laboratory to the TRU waste certification process. The GEM Project has been included as a retrieval project within the SDA that contributed waste to this waste stream.

The Ignitability Section has been revised to discuss that nitrate salts, identified during retrieval, are not ignitable and to include the associated references.

Added two new sections: "Justification for the Selection of Radiography or VE" and the "Historical Waste Management" to support the revision to the Waste Isolation Pilot Plant Hazardous Waste Permit date November 30, 2010

Added new source documents to Attachment 1 of the Summation of Aspects.

The waste being added to the waste stream has common physical form, similar hazardous constituents, and is from the same process as the waste currently identified in waste stream ID-SDA-SLUDGE, Rev.1. Therefore there is no impact to the EPA HWNs assigned to ID-SDA-SLUDGE, Rev. 1.

Update for the WIPP Operating Record (ID-SDA-SLUDGE) certification;

I hereby certify that I have reviewed this Update for WIPP Operating Record, 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.

Sim Vernen SPA 5-31-11

Signature of Site Project Manager

Printed Name and Title

Date

CARLSBAD FIELD OFFICE

NOGUMENT REVIEW RECORD

SITE: INL

DOCUMENT TITLE: Update for the WIPP Operating Record (Change Notice #1) Heterogeneous Sludge from the Subsurface Disposal Area

DOCUMENT NUMBER and REVISION: ID-SDA-Sludge, Rev. 1 Change Notice #1

DOCUMENT DATE: TYPE OF REVIEW: WAP ASSIGNED REVIEWER: R. Chavez

DELEGATED REVIEWER: L. Burns, R. Chavez, Ricardo Chavez, E. D'Amico, M. Doherty, K. Guillermo, A. North, M. Strum, K. Zbryk

ADDITIONAL INSTRUCTIONS:

FORWARD RESPONSE TO: Site.Documents@wipp.ws

#	PAGE	SECT/ PARA	COMMENT	RESPONSE	AC C	REJ
1.	All		Paginate the change notice. (D'Amico)	Done	X	
2.	1		Introductory Text: For consistency with the	Added	X	
			approved WSPF, add "at Idaho National			
			Laboratory (INL)" to the end of the waste stream			
			name. (K. Guillermo, K. Zbryk)			
3.	1		Item 1: For completeness add 09/11/09 to the list	Added	X	
			of dates of audit approval. (K. Guillermo)			
4.	1		Item 4: The original approved Revision 1 WSPF	Changed	X	
			for ID-SDA-SLUDGE identifies CCP-AK-INL-001,			
			Revision 7, October 27, 2008 not Rev. 8,			
	na		September 8, 2009. Verify and revise statement			
			in Item 4 accordingly. (D'Amico)			l
5.	1		<u>Item 5</u> . Identify in the header that this is a new	Changed		1
			section by placing the words "new section]	
			entitled before the word Justification." (K. Zbryk)			
6.	1		<u>Item 5</u> : Provide justification for the selection of	Added	^	
			RIR and VE (it is taken that they meet the			
			the WAP to choose from (14 Debarts)			
			the WAP to choose from). (M. Donerty)			
			Consider abanging the information to be added to			
			something like: "Both Radiography and VE are			
			used to characterize containers in waste stream			
			ID-SDA-SI UDGE Rev 1 RTR is selected as a			
			characterization method because some of the			l
			containers are already packaged and RTR meets	· · · · · · · · · · · · · · · · · · ·		
1 1			all the Data Quality Objectives for NDE for			
}			previously package waste in this waste stream.		1	
1			VE is selected as a characterization method			
			because VE meets all the Data Quality Objectives			
			for NDE for newly generated waste in this waste			
			stream." (D'Amico)			
7.	2		Item 8: Identify in the header that this is a new	Added	X	<u> </u>
			section by placing the words "new section		1	
			entitled" before the word "Historical."			
					1	
			Revise the 1 st sentence of this item to reflect that	No change the first sentence	X	
			this is a new section as follows: "Add the following	tells where it needs to be added		
			new section to the RCRA section."			
			Delete the 1 st complete paragraph since it is not	No change this is consistent with	x	
			relevant to the management of this "newly	the DEBRIS CN		
			generated" waste stream. (K. Zbryk)			

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CARLSBAD FIELD OFFICE

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	PAGE	SECT/	COMMENT	RESPONSE	AC	REJ
8.	2	PARA	Item 8: Consider revising last sentence in first paragraph to read something like: " Targeted Waste to those outlined in AK Summary Report CCP-AK-INL-001" (D'Amico)	No change this is consistent with the DEBRIS CN	X	
9.	3		Item 8: At top of page, delete the "s" to make Waste Streams singular. (D'Amico)	Removed	X	
10	3		Item 9. Identify in the header that this is a new section by placing the words "new section entitled" before the word "Justification."	Added	X	
			Revise the 1 st sentence of this item to reflect that this is a new section as follows: "Add the following new section as follows." (K. Zbryk)	No change the first sentence tells where it needs to be added	X	
11	3		Item 9: Provide justification for the selection of RTR and VE (it is taken that they meet the requirements of the WAP or they wouldn't be in the WAP to choose from).	Added	×	
			Consider changing the information to be added to something like: "Both Radiography and VE are used to characterize containers in waste stream ID-SDA-SLUDGE, Rev. 1. RTR is selected as a characterization method because some of the containers are already packaged and RTR meets all the Data Quality Objectives for NDE for previously package waste in this waste stream.			
			VE is selected as a characterization method because VE meets all the Data Quality Objectives for NDE for newly generated waste in this waste stream." (D'Amico)			
12	3		Item 11, 1 st sentence below header: Remove "in the Ignitability Section" since this information applies to Attachment 1. (K. Zbryk)	Change made	X	
13	3		Reason/justification for the change: The original approved Revision 1 WSPF for ID-SDA- SLUDGE identifies CCP-AK-INL-001, Revision 7, October 27, 2008 not Rev. 8, September 8, 2009. Verify and revise third item in this section accordingly. (D'Amico)	Revised	X	
14	4		Reason/justification for the change, 2 nd paragraph on page: Add a paragraph break before "The Ignitability Section has been revised" as this is a separate item. Having the information in a separate paragraph will more clearly identify why information is being added to the section. (K. Guillermo)	Added	X	
15	4		Reason/Justification for the Change: Add the following statement to the end of the section: "The waste being added to the waste stream has common physical form, similar hazardous constituents, and is from the same process as the waste currently identified in waste stream ID- SDA-SLUDGE, Rev.1. Therefore there is no impact to the EPA HWNs assigned to ID-SDA- SLUDGE, Rev. 1." (K. Guillermo)	Added	X	

COMMENT RESOLUTION APPROVED: More Auchermo Signature

<u>D5/31/2011</u> Date

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Signature of Site Project Manager

Printed Name and Title

Date