

**Annual Change Report 2012/2013** 

From July 1, 2012, to June 30, 2013

October 15, 2013

Prepared for:

The U.S. Department of Energy

Prepared by:

**Nuclear Waste Partnership LLC** 

**Regulatory Environmental Services** 

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#### Introduction

The U.S. Environmental Protection Agency (EPA) requires the U.S. Department of Energy (DOE) to provide information on any change in conditions or activities pertaining to the disposal system since the most recent compliance application. This requirement is identified in Title 40 Code of Federal Regulations (CFR), Section 194.4(b)(4), which states:

"No later than six months after the administrator issues a certification, and at least annually thereafter, the Department shall report to the Administrator, in writing, any changes in conditions or activities pertaining to the disposal system that were not required to be reported by paragraph (b)(3) of this section and that differ from information contained in the most recent compliance application."

The DOE provides an annual report each November of applicable changes under the above requirement. This annual report informs the EPA of changes to information in the most recent compliance application (the 2009 Compliance Recertification Application (CRA)). Significant planned changes must be reported to the EPA prior to implementation by the DOE. In addition, Title 40 CFR, Section 194.4(b)(3) requires that significant unplanned changes be reported to the EPA within 24 hours or ten days, depending on the severity of the activity or condition. Planned changes are submitted on an individual basis. Other changes are reported annually.

Changes in activities or conditions are reviewed to determine if 40 CFR Section 194.4(b)(3) reporting is necessary. The enclosed tables list those items identified for reporting under 40 CFR Section 194.4(b)(4). The majority of the items described in this report are inspections, reports, and modifications to written plans and procedures for Waste Isolation Pilot Plant (WIPP) operations.

This report captures the summary of each change within seven tables for the period July 1, 2012, through June 30, 2013:

<u>Table 1:</u> Changes in WIPP Conditions or Activities Reportable under Title 40 CFR Section 194.4(b)(4) documents EPA and DOE interactions during the reporting period with a one or two sentence description of each correspondence.

<u>Table 2:</u> Procedure Revision Table documents changes to relevant plans and procedures during the reporting period.

<u>Table 3:</u> Waste Emplacement Summary Report documents the transuranic (TRU) waste inventory for the waste parameters. The summary provides the total emplaced inventory in the repository as of June 30, 2013.

<u>Table 4:</u> Performance Assessment, Software, and Hardware Changes documents the changes to relevant codes, software, and hardware that have occurred during the current reporting period.

<u>Table 5:</u> Passive Institutional Controls (PICs) Activity documents the relevant activities that would be applicable to the development of PICs. This table has been added in compliance with the EPA revised PICs schedule. (Reyes to Moody, March 7, 2008)

<u>Table 6:</u> EPA Waste Characterization Inspections – January 2008 to June 2013, documents inspections performed by the EPA pertaining to Tier 1 changes to the baseline approvals at generator and storage sites for TRU waste. This table was added to the Annual Change Report at the request of the EPA during the EPA/DOE management meeting held July 29, 2010. Inspections prior to January 2008 were documented in Table CARD 8-1 *EPA Waste Characterization Inspections* submitted with the five-year recertification applications. (EPA request, July 29, 2010)

<u>Table 7:</u> EPA Quality Assurance Audits – January 2008 to June 2013, documents audits performed by the EPA for generator and storage sites for TRU waste. This table was added to the Annual Change Report at the request of the EPA during the EPA/DOE management meeting held July 29, 2010. Audits prior to January 2008 were documented in Table CARD 8-2 *EPA Quality Assurance Audits by Site* submitted with the five-year recertification applications. (EPA request, July 29, 2010)

In accordance with the EPA requests and feedback, this report incorporates suggestions and guidance for capturing the appropriate level of detail and the layout of information with respect to the WIPP certification criteria. This report does not include administrative changes to procedures such as editorial changes, reformatting, correcting the titles of references, correcting inconsistency within a procedure, and other changes that do not change the substance or intent of the document.

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Changes in WIPP Conditions or Activities Reportable under Title 40 CFR Section 194.4(b)(4)

Table 1: Changes in WIPP Conditions or Activities Reportable under Title 40 CFR Section 194.4(b)(4)

Regulatory	Implementing	Description of the Change and DOE Assessment of the Impact of the Change
Requirements	Document or	
	Activity that	
	Changed	
194.4(b)(3) Planned	Shielded Containers	DOE to EPA May 16, 2013. Submittal of complex-wide procedure, CCP-TP-081, "CCP
Change Requests	Planned Change	Shielded Container Assembly Loading" as requested in EPA's letter dated August 8, 2011.
	Request	
194.4(b)(4) Annual	2011/2012 Annual	DOE to EPA November 6, 2012. CBFO submittal of the "Waste Isolation Pilot Plant
Change Report	Change Report	2011/2012 Annual Change Report".
194.8 Approval	Advanced Mixed	DOE to EPA December 5, 2012. CBFO response to EPA concerns resulting from a continued
Process for Waste	Waste Treatment	compliance inspection held October 30 to November 1, 2012.
Shipment from	Project (AMWTP)	EPA to DOE January 29, 2013. EPA approved the Tier 1 request for the acceptable
Waste Generator		knowledge (AK) process implemented by AMWTP- Idaho Treatment Group (ITG). The Tier
Sites for Disposal at		1 request included debris (S5000) and solids (S3000) from Argonne National Laboratory –
the WIPP		East and debris (S5000) from the Materials and Fuels Complex (MFC) at the Idaho National
		Laboratory (INL). EPA docket no. A-98-49; II-A4-169.
		EPA to DOE April 25, 2013. EPA approval of the Contact-Handled (CH) TRU waste
		characterization program at AMWTP. EPA docket no. A-98-49; II-A4-173.
		DOE to EPA May 30, 2013. Tier 1 request to add Los Alamos National Laboratory (LANL)
1040 4 1	A 37 / 1	debris waste.
194.8 Approval	Argonne National	DOE to EPA August 1, 2012. Tier 1 request for ANL-Central Characterization Project (CCP)
Process for Waste	Laboratory (ANL)–	Remote Handling (RH) evaluating radiological approach of the waste stream AERHDM.
Shipment from Waste Generator	Tier 1 request	EPA to DOE October 4, 2012. Approval to add two RH debris types to the AERHDM waste
Sites for Disposal at		stream. EPA Docket number A-98-49; II-A4-167. <u>DOE to EPA December 5, 2012</u> . Submittal of documentation for Tier 1 request for ANL-East
the WIPP		generated waste at the AMWTP.
194.8 Approval	Idaho National	EPA to DOE July 25, 2012. Approval of Tier 1 request to add Lot 2 waste to the RH TRU
Process for Waste	Laboratory (INL) –	waste stream ID-ANLE-S5000. EPA Docket No. A-98-49; II-A4-163.
Shipment from	Tier 1 request	DOE to EPA November 16, 2012. Tier 1 request for a new calibration for the Stored Waste
Waste Generator	Tier i request	Examination Pilot Plant (SWEPP) Gamma-Ray Spectrometer (SGRS) Unit with submittal of
Sites for Disposal at		the SGRS calibration, confirmation and verification report.
the WIPP		EPA to DOE February 26, 2013. EPA approval of the Tier 1 request to use a new calibration
		for the SWEPP SGRS. EPA docket no. A-98-49; II-A4-172.

Table 1: Changes in WIPP Conditions or Activities Reportable under Title 40 CFR Section 194.4(b)(4)

Regulatory	Implementing Document or	Description of the Change and DOE Assessment of the Impact of the Change
Requirements	Activity that Changed	
	Changeu	DOE to EPA April 29, 2013. Submittal of documents in support of the continued compliance
		inspection of INL-CCP.
194.8 Approval	LANL-	DOE to EPA July 16, 2012. Tier 1 request for the addition of the S4000 summary category
Process for Waste	Tier 1 request	group to the CCP- CH waste program.
Shipment from	Tier i request	EPA to DOE August 14, 2012. Approval of two Tier 1 requests; (1) extension of the gamma
Waste Generator		density range of the High Efficiency Neutron Counter Unit 1 (HENC No. 1) non-destructive
Sites for Disposal at		analysis (NDA), and (2) extension of the gamma density range of the Super High Efficiency
the WIPP		Neutron Counter (SuperHENC). EPA Docket No. A-98-49; II-A4-164.
		DOE to EPA October 17, 2012. Submittal of LANL CCP CH Tier 1 S4000 training
		demonstration information requested by EPA.
		EPA to DOE December 31, 2012. Approval of the addition of summary category group
		(SCG) S4000 to the baseline approval of LANL CCP. Docket number A-98-49; II-A4-168.
		DOE to EPA May 30, 2013. Tier 1 request for the use of the Mobile In-Situ Object Counting
		Systems (ISOCS) Large Container Counter to assay CH S3000 and S5000 waste in 55-gallon
		drums, Standard Waste Boxes (SWBs) and Corrugated Metal Boxes.
194.8 Approval	Savannah River	DOE to EPA July 3, 2012. Tier 1 request for a five-foot set-back configuration on the large
Process for Waste	Site (SRS) – Tier 1	box counter and submittal of calibration reports.
Shipment from	request	EPA to DOE September 11, 2012. Approval of the Tier 1 request for a five-foot setback
Waste Generator		configuration (55-gallon drums only) of the Nondestructive Assay Box Counter (NABC).
Sites for Disposal at		DOE to EPA November 28, 2012. Tier 1 request to evaluate waste stream SR-RH-235F.01,
the WIPP		55-gallon containers of RH TRU debris.
		DOE to EPA December 18, 2012. Tier 1 request for a five-foot setback configuration on the
		Large Box Counter with calibration reports.
		EPA to DOE February 12, 2013. EPA approval to add waste stream SR-RH-235F.01 to the
		baseline approval. EPA docket no. A-98-49; II-A4-170.
		EPA to DOE February 21, 2013. EPA approval of the five-foot setback configuration on the
		Large Box Counter. EPA docket no. A-98-49; II-A4-171.
		DOE to EPA May 30, 2013. Tier 1 request for EPA to evaluate the radiological approach of
		RH SRS debris waste stream SR-RH-772F.01.

Table 1: Changes in WIPP Conditions or Activities Reportable under Title 40 CFR Section 194.4(b)(4)

Regulatory Requirements	Implementing Document or	Description of the Change and DOE Assessment of the Impact of the Change
1	Activity that	
	Changed	
194.8 Approval	Fiscal Year 2012	DOE to EPA July 25, 2012. Notification of Tier 2 changes for AMWTP and CCP activities at
Process for Waste	(FY12) Quarterly	ANL, Bettis Atomic Power Laboratory (BAPL), Hanford, INL, LANL, Oak Ridge National
Shipment from	Tier 2 reports, third	Laboratory (ORNL), Sandia National Laboratories (SNL) and SRS for FY12, third quarter.
Waste Generator	quarter	EPA to DOE September 25, 2012. Review and acceptance of the Tier 2 changes made during
Sites for Disposal at		FY12, third quarter at AMWTP and CCP.
the WIPP		DOE to EPA October 15, 2012. Response to EPA request for documents from the Tier 2 third quarter for FY12.
194.8 Approval	FY12 Quarterly	DOE to EPA October 24, 2012. Notification of Tier 2 changes for AMWTP and CCP
Process for Waste	Tier 2 reports,	activities for FY12, fourth quarter.
Shipment from	fourth quarter	EPA to DOE January 30, 2013. There were no objections to the fourth quarter Tier 2 changes
Waste Generator		for AMWTP and CCP activities. Additional documents were requested by EPA.
Sites for Disposal at		DOE to EPA February 6, 2013. DOE provided additional documents requested by EPA
the WIPP		during review of the fourth quarter Tier 2 changes for AMWTP and CCP review.
194.8 Approval	FY13 Quarterly	EPA to DOE April 9, 2013. EPA request for additional information prior to approval of first
Process for Waste	Tier 2 reports, first	quarter Tier 2 changes.
Shipment from	quarter	DOE to EPA April 18, 2013. DOE response providing additional information requested by
Waste Generator		EPA for Tier 2 changes.
Sites for Disposal at		EPA to DOE May 29, 2013. EPA approval of the first quarter Tier 2 changes for FY13.
the WIPP		
194.8 Approval	FY13 Quarterly	DOE to EPA April 25, 2013. Submittal of the Tier 2 changes for AMWTP and CCP activities
Process for Waste	Tier 2 reports,	for the second quarter of FY13.
Shipment from	second quarter	EPA to DOE May 28, 2013. EPA request for additional information prior to approval of
Waste Generator	_	second quarter Tier 2 changes.
Sites for Disposal at		DOE to EPA June 4, 2013. Submittal of additional information requested by EPA for the
the WIPP		second quarter Tier 2 changes.
194.14(b) Design of	Status of	SEGA (Segmented Enriched Germanium Assembly) and MEGA (Multiple Element
the Disposal System	Experiments in the	Germanium Array)
	WIPP Underground	Scientists continued to operate their experiment, requiring occasional exchanges of bottles

Table 1: Changes in WIPP Conditions or Activities Reportable under Title 40 CFR Section 194.4(b)(4)

Regulatory Requirements	Implementing Document or Activity that Changed	Description of the Change and DOE Assessment of the Impact of the Change
		filled with liquid nitrogen to cool the detector.
		EXO (Enriched Xenon Observatory)
		Components of the experiment continued to be tested, adjusted and data collected. Construction is over 90% complete. Collaborators continue filling the detector with liquid enriched Xenon (80% <sup>136</sup> Xe).
		LBRE (Low Background Radiation Experiment)
		These experiments are only monitored during the summer months.
		DMTPC (Dark Matter Time Projection Chamber) Detectors were operated safely and reliably during the reporting period.
		Salt Disposal Investigations (SDI)/Salt Defense Disposal Investigation (SDDI) Mining for SDI phase 1 is complete. Mining for SDI phase IIA is 85% complete.
		Intergraded Project Team (IPT) A team has been put together to look at the science and testing activities at the WIPP site. The IPT is now working on procedures and job hazard analysis (JHAs)/ Automated Job Hazard Analysis (AJHAs) for all experiments.
194.21 Inspections	Continued Compliance Inspection - LANL	DOE to EPA July 23, 2012. Response to issue number LANL-CCP-CH-RTR-2012-01CR from the continued compliance inspection of the High Energy Real-Time Radiography Unit (HE-RTR).
	Continued Compliance Inspection – INL	DOE to EPA June 26, 2013. Submittal of objective evidence to EPA for CCP-INL continued compliance inspection issue no. INL-CCP-CC-2013-02CR.

Table 1: Changes in WIPP Conditions or Activities Reportable under Title 40 CFR Section 194.4(b)(4)

Regulatory Requirements	Implementing Document or Activity that Changed	Description of the Change and DOE Assessment of the Impact of the Change
194.21 Inspections	Subpart A Annual Inspection	EPA to DOE June 6, 2012. Summary of the Annual EPA Subpart A inspection of the WIPP waste management and storage operations, emplacement activities and monitoring program. EPA determined that activities related to emissions monitoring during waste management and storage continue to comply with the requirements of 40 CFR Part 191, Subpart A, monitoring of the ten parameters important to the long-term containment of waste is adequate, and that waste is properly emplaced. EPA docket no. A-98-49; II-B3-125.
194.24 Waste Characterization	Radiological Characterization of TRU Waste	EPA to DOE September 4, 2012. Evaluation of the Analytical Chemistry Laboratory (ACL) located at ANL resulted in numerous technical deficiencies identified, and that no data generated by the ACL after July 31, 2012, can be used by ANL-CCP to characterize WIPP destined TRU waste until deficiencies are addressed and ACL receives EPA approval. EPA Docket No. A-98-49; II-A4-165.
194.24 Waste Characterization	RH TRU Waste Characterization Program Implementation Plan (WCPIP)	DOE to EPA August 16, 2012. Request for approval of the RH TRU WCPIP, Revision 3, Draft E.  EPA to DOE September 4, 2012. Approval of the RH TRU WCPIP, DOE/WIPP-02-3214, Revision 3, Draft E, with exceptions.

Table 2:

**Procedure Revision Table** 

**Table 2: Procedure Revision Table** 

Procedure	Revision and Effective Date	Description
WP 08-NT.01, Waste Data System (WDS) Program and Data Management Plan	Rev. 25, July 23, 2012	<ul> <li>Revised subsection 4.5 to delete details about remote WDS access and to add information about the available read-only WDS application and database.</li> <li>Added references to screen-level and context-level online help applications in each subsection of 6.0.</li> <li>Deleted text in subsections 6.1, 6.2, and 6.3 that described information now found in screen-level and context-level help.</li> <li>Deleted subsections 6.4-6.7, as information is now found in screen-level and context-level help.</li> </ul>
WP 02-EM3001, Administrative Processes for Environmental Monitoring and Hydrology Programs	Rev. 17, August 21, 2012	Added section 7.0 Process for Repair, Replacement, or Maintenance of Government Owned Monitoring Wells.
WP 02-PC3003, Compliance Certification/Recertification and PCB Change Screening	Rev. 10, October 22, 2012	<ul> <li>Removed any items referencing spill reporting or the activities associated with spill reporting.</li> <li>Deleted sections 3 and 4 which have been moved to WP 02-EC3506.</li> </ul>
WP 02-PC3004, Compliance Certification/Recertification and PCB Disposal Change Evaluation	Rev. 9, October 22, 2012	<ul> <li>Deletion of the reporting requirements for releases and discovered conditions. These items have been moved to WP 02-EC3506.</li> </ul>
WP 02-PC.05, Processing Planned and Unplanned Changes Related to the EPA Compliance Certification Baseline and the WIPP Approval for PCB Disposal	Rev. 3, October 31, 2012	<ul> <li>Removed 2.4.1 which has been moved to WP 02-EC3506.</li> <li>Removed reference to step K of the PCB Conditions of Approval (COA) which has been moved to WP 02-EC3506.</li> <li>Deleted WP 02-PC3003 and WP 02-PC3004 references which have been moved to WP 02-EC3506.</li> </ul>
WP 02-EC1001, Characterization Sampling, Shipping, and Documentation	Rev. 11, November 5, 2012	<ul> <li>Complete rewrite of sections 3.0 through 7.0 to clarify specific sampling requirements.</li> <li>Addition of section 2.0 to discuss drinking water sampling.</li> </ul>
WP 05-1058, CH Waste Handling Abnormal Operations	Rev. 11, November 30, 2012	Added sections 8.0 (Relocation of Loaded CH Packages from One Trailer to Another Trailer), 9.0 (Relocation of Loaded CH Packages from TRU DOCK to Trailer), and 10.0

**Table 2: Procedure Revision Table** 

Procedure	Revision and Effective Date	Description
		(Reaching Over for Waste Emplacement).
SP 9-7, WIPP Well Water-Level Monitoring	Rev. 6, December 3, 2012	Changes were made to remove specific requirements, guidance and references to in-situ gauges.
WP 02-EM1010, Field Parameter Measurements and Final Sample Collection	Rev. 1, February 25, 2013	Deleted Section 11.0, Regulatory Review Process.
WP 12-9, WIPP Emergency Management Program	Rev. 35, February 27, 2013	<ul> <li>Clarified sections 1.5, 3.1 and 8.1.</li> <li>Modified subsection 6.3.1 to address requests for traffic control assistance.</li> <li>Added required reading of the Emergency Planning Hazards Assessment to the training table in 13.2.</li> </ul>
WP 02-EC3506, Environmental Incident Reporting	Rev. 8, March 26, 2013	• Incorporated reporting requirements previously identified in WP 02-PC3003, WP 02-PC3004 and WP 02-PC.05.
WP 12-HP3400, Contamination Control	Rev. 10, March 27, 2013	• Rewrote step 11.0 to list the indicators that trigger a bioassay.
NP 5-1, Implementing Procedures	Rev. 6, April 3, 2013	• This procedure was revised to address and clarify the periodic review process. This revision was based on CBFO Corrective Action Report (CAR) 13-012.
WP 12-ER4903, Radiological Event Response	Rev. 16, April 25, 2013	• Extensive revision to address HS45 Finding 1 Action 2 and HS45 Finding 2. Major changes include: rewrote multiple sections to provide clarification/detailed instructions/updated information for CMRO (Central Monitoring Room Officer), Facility Shift Manager (FSM), RadCon, Waste Handling and other affected individuals and groups.
WP 05-WH1011, CH Waste Processing	Rev. 48, April 30, 2013	<ul> <li>Deleted steps 2.3.15, 2.4.26, 2.5.9 and the Note above step 2.3 pertaining to the crane load limit switch.</li> <li>Added Notes above steps 2.3 and 2.4 describing the Shadow Board use.</li> <li>Incorporated Shielded Container Assembly (SCA) information where applicable throughout section 2.0 including</li> </ul>

**Table 2: Procedure Revision Table** 

Procedure	Revision and Effective Date	Description
		new steps 2.5.1-2.5.3, and 2.5.26, and new Cautions above steps 2.5.8 and 2.5.36.
WP 05-1025, CH Waste Downloading and Emplacement	Rev. 10, April 30, 2013	<ul> <li>Added Note above step 2.24 for emplacing SCA payloads.</li> <li>Added step 2.26 regarding SCA payloads.</li> <li>Added Note above step 3.1 for Magnesium Oxide (MgO) on SCA payloads.</li> </ul>
WP 05- 1058, CH Waste Handling Abnormal Operations	Rev. 12, April 30, 2013	<ul> <li>Added SCA to step 1.1.2</li> <li>Added new step 3.1.1, "Obtain concurrence from WHE (Waste Handling Engineer)/ WHM (Waste Handling Manager) and notify U/G (Underground) Services prior to returning waste to the surface."</li> <li>Added new step 5.1.2, "Obtain direction from FSM if LCO (Limiting Conditions for Operation) 3.7.1 is to be entered."</li> </ul>
WP 08-NT.04, Waste Data System Configuration Management and Software	Rev. 21, June 4, 2013	• Added language in section 5.3 as a Corrective Action for WIPP Form WF-13-065 to direct creation of test cases for all container types in the WDS.
SP 12-31, Calibration, Use and Maintenance of the Perkin Elmer Nexlon 300D ICP-MS	Rev. 0, June 19, 2013	This procedure prescribes the SNL process for calibration, operation, and maintenance of the Perkin Elmer Nexlon 300D Inductively Coupled Plasma Mass Spectrometer as part of the laboratory geochemistry research activities in the support of WIPP-related projects.
WP 05-WH.02, WIPP Waste Handling Operations WDS User's Manual	Rev. 2, June 24, 2013	<ul> <li>Definitions were revised to include SLB2 (Standard Large Box 2), SCA and MgO Target Factor.</li> <li>Added subsection 3.2.1, "User Accounts and Passwords".</li> <li>Replaced figures 3-1, 4-1, 5-1, 5-3, 5-4 and 5-5.</li> <li>Added subsections 5.1.5 and 5.3 [D] on incorrect information can only be corrected by the DA (Data Administrator).</li> <li>Revised subsections 5.4.1 [C] to [H] and added [I] through [O] to clarify how to create overpacks in the WDS.</li> </ul>

**Table 2: Procedure Revision Table** 

Procedure	Revision and Effective Date	Description
		• Added to subsection 8.3.4 steps on how to do Waste and MgO emplacement reviews.

## Table 3:

Waste Emplacement Summary Report

# **Table 3: Waste Emplacement Summary Report** (Footnote descriptions can be found on page 19)

		TRU Wast	e Inventory	
	Reporting Period <sup>1</sup> Er	nplaced Volume (m <sup>3</sup> )	Cumula	tive <sup>2</sup> Emplaced Volume (m <sup>3</sup> )
RH TRU	56		337	
CH TRU	4,9	)29		87,032
		Waste Compor	ents Inventory	
	Reporting Period <sup>1</sup> Emplaced Mass (kg)	Cumulative <sup>2</sup> Emplaced Mass (kg)	Maximum Emplaced Limiting Value <sup>3</sup> (kg)	Percent of Limiting Value <sup>3</sup> Emplaced
Cellulose, Plastic, Rubber Materials <sup>4</sup>	474,900	8,709,278	22,000,000	39.59%
	Reporting Period <sup>1</sup> Emplaced Mass (kg)	Cumulative <sup>2</sup> Emplaced Mass (kg)	Minimum Emplacement Limiting Value <sup>3</sup> (kg)	Percent of Limiting Value <sup>3</sup> Emplaced
Fe-Metals <sup>5</sup>	1,856,937	26,621,065	20,000,000	Minimum met
Non-Fe Metals	29,869	415,968	2.000	Minimum met
Residual Liquids		oited at the WIPP repose y volume of that payloa	5	liquid in any payload container shall not
	· · · · · · · · · · · · · · · · · · ·	1 7		
	Em	placed Radiological A	ctivity Inventory (curi	es)
Radionuclide	Cumulative Activity in FY 2011/2012 Annual	placed Radiological A CH Repository Reporting Period Activity <sup>6</sup>	RH Repository Reporting Period Activity <sup>6</sup>	Total Activity as of June 30, 2013 <sup>6</sup>
Radionuclide	Cumulative Activity in FY	CH Repository Reporting Period Activity <sup>6</sup> 2.485E+05	RH Repository Reporting Period Activity <sup>6</sup> 5.630E+02	<b>Total Activity as of June 30, 2013</b> <sup>6</sup> 2.491E+05
	Cumulative Activity in FY 2011/2012 Annual Change Report <sup>6</sup> 2.301E+05 8.114E+03	CH Repository Reporting Period Activity <sup>6</sup> 2.485E+05 1.338E+01	RH Repository Reporting Period Activity <sup>6</sup> 5.630E+02 1.254E+04	Total Activity as of June 30, 2013 <sup>6</sup>
241Am 137 Cs 238 Pu	Cumulative Activity in FY 2011/2012 Annual Change Report <sup>6</sup> 2.301E+05 8.114E+03 4.423E+05	CH Repository Reporting Period Activity <sup>6</sup> 2.485E+05  1.338E+01  4.758E+05	RH Repository Reporting Period Activity <sup>6</sup> 5.630E+02 1.254E+04 6.610E+02	Total Activity as of June 30, 2013 <sup>6</sup> 2.491E+05 1.255E+04 4.764E+05
241Am 137 Cs 238 Pu 239 Pu	Cumulative Activity in FY 2011/2012 Annual Change Report <sup>6</sup> 2.301E+05 8.114E+03 4.423E+05 3.161E+05	CH Repository Reporting Period Activity <sup>6</sup> 2.485E+05  1.338E+01 4.758E+05 3.260E+05	RH Repository Reporting Period Activity <sup>6</sup> 5.630E+02  1.254E+04  6.610E+02  3.197E+02	Total Activity as of June 30, 2013 <sup>6</sup> 2.491E+05 1.255E+04 4.764E+05 3.263E+05
241Am 137 Cs 238 Pu 239 Pu 240 Pu	Cumulative Activity in FY 2011/2012 Annual Change Report <sup>6</sup> 2.301E+05 8.114E+03 4.423E+05 3.161E+05 7.800E+04	CH Repository Reporting Period Activity <sup>6</sup> 2.485E+05  1.338E+01  4.758E+05  3.260E+05  8.043E+04	RH Repository Reporting Period Activity <sup>6</sup> 5.630E+02 1.254E+04 6.610E+02 3.197E+02 2.455E+02	Total Activity as of June 30, 2013 <sup>6</sup> 2.491E+05 1.255E+04 4.764E+05 3.263E+05 8.068E+04
241Am 137 Cs 238 Pu 239 Pu 240 Pu 242 Pu	Cumulative Activity in FY 2011/2012 Annual Change Report <sup>6</sup> 2.301E+05 8.114E+03 4.423E+05 3.161E+05 7.800E+04 2.420E+01	CH Repository Reporting Period Activity <sup>6</sup> 2.485E+05 1.338E+01 4.758E+05 3.260E+05 8.043E+04 2.622E+01	RH Repository Reporting Period Activity <sup>6</sup> 5.630E+02 1.254E+04 6.610E+02 3.197E+02 2.455E+02 3.526E-01	Total Activity as of June 30, 2013 <sup>6</sup> 2.491E+05 1.255E+04 4.764E+05 3.263E+05 8.068E+04 2.658E+01
241Am 137 Cs 238 Pu 239 Pu 240 Pu 242 Pu 90 Sr	Cumulative Activity in FY 2011/2012 Annual Change Report <sup>6</sup> 2.301E+05 8.114E+03 4.423E+05 3.161E+05 7.800E+04 2.420E+01 5.350E+03	CH Repository Reporting Period Activity <sup>6</sup> 2.485E+05 1.338E+01 4.758E+05 3.260E+05 8.043E+04 2.622E+01 1.555E+01	RH Repository Reporting Period Activity <sup>6</sup> 5.630E+02  1.254E+04  6.610E+02  3.197E+02  2.455E+02  3.526E-01  6.768E+03	Total Activity as of June 30, 2013 <sup>6</sup> 2.491E+05 1.255E+04 4.764E+05 3.263E+05 8.068E+04 2.658E+01 6.784E+03
241Am 137 Cs 238 Pu 239 Pu 240 Pu 242 Pu 90 Sr 233 U	Cumulative Activity in FY 2011/2012 Annual Change Report <sup>6</sup> 2.301E+05 8.114E+03 4.423E+05 3.161E+05 7.800E+04 2.420E+01 5.350E+03 6.464E+00	CH Repository Reporting Period Activity <sup>6</sup> 2.485E+05 1.338E+01 4.758E+05 3.260E+05 8.043E+04 2.622E+01 1.555E+01 6.357E+00	RH Repository Reporting Period Activity <sup>6</sup> 5.630E+02 1.254E+04 6.610E+02 3.197E+02 2.455E+02 3.526E-01 6.768E+03 3.837E-01	Total Activity as of June 30, 2013 <sup>6</sup> 2.491E+05 1.255E+04 4.764E+05 3.263E+05 8.068E+04 2.658E+01 6.784E+03 6.740E+00
241Am 137 Cs 238 Pu 239 Pu 240 Pu 242 Pu 90 Sr	Cumulative Activity in FY 2011/2012 Annual Change Report <sup>6</sup> 2.301E+05 8.114E+03 4.423E+05 3.161E+05 7.800E+04 2.420E+01 5.350E+03	CH Repository Reporting Period Activity <sup>6</sup> 2.485E+05 1.338E+01 4.758E+05 3.260E+05 8.043E+04 2.622E+01 1.555E+01	RH Repository Reporting Period Activity <sup>6</sup> 5.630E+02  1.254E+04  6.610E+02  3.197E+02  2.455E+02  3.526E-01  6.768E+03	Total Activity as of June 30, 2013 <sup>6</sup> 2.491E+05 1.255E+04 4.764E+05 3.263E+05 8.068E+04 2.658E+01 6.784E+03

# **Table 3: Waste Emplacement Summary Report** (Footnote descriptions can be found on page 19)

## Magnesium Oxide (MgO)<sup>7</sup> and Cellulose, Plastic and Rubber (CPR) Mass Emplaced Per Waste Panel

Panel Panel	Room	MgO (kg)	CPR* (kg)	Excess Factor
1 anei	all	<u> </u>		1.87 <sup>8</sup>
2	2-7	4,482,355	1,237,732	$\frac{1.87^{\circ}}{2.26^{8}}$
		5,972,300	1,241,928	
3	1 7	691,515 960,120	186,200	1.71
3	6	954,405	104,831 228,033	4.03
3	5	1,022,985		1.70
3	4	960,120	284,651 255,054	
3	3	931,545	243,860	1.79 1.89
3	2	931,343		
3	1	662,940	227,889 183,072	2.03
4	7	942,975	248,903	1.76
4	6	925,830	267,494	1.71
4	5	948,690	265,302	1.71
4	4	1,049,655	290,739	1.76
4	3	1,015,365	285,755	1.70
4	2	931,545	374,327	1.227
4	1 7	668,655	265,884	1.23
5	7	937,260	353,262	1.28
5	6	875,477	140,009	2.85
5	5	782,346	298,808	1.24
5	4	737,167	225,425	1.64
5	3	714,286	215,937	1.61
5	2	730,612	194,045	1.84
5	1 7	485,714	135,742	1.75
6	7	744,218	167,581	2.11
6	6	666,667	189,857	1.74
6	5	474,294	203,473	1.24
6	4	471,586	202,410	1.25
6	3	406,533	171,306	1.25
6	2	34,288	11,237	1.44
6	1	0	1,181	*.00

#### **Table 3: Waste Emplacement Summary Report**

(Footnote descriptions can be found on page 19)

#### **Footnotes**

- 1. Reporting Period includes emplacement that occurred between July 1, 2012, and June 30, 2013.
- 2. Cumulative period includes from the beginning of emplacement until June 30, 2013.
- 3. Limiting Value—Values from CRA 2009 Section 24. These values are based on inventory assumptions.
- 4. Cellulose, Plastic, Rubber Materials (CPR) includes CPR within the waste, container materials and emplacement materials.
- 5. Fe-Metals include both materials in the waste and containers in total.
- 6. There is no decay correction for the listed isotope activities.
- 7. New minimum value for excess factor of MgO to be implemented as approved by EPA (February 11, 2008) reduces excess factor from 1.67 to 1.20 and ensures minimum reactivity of 94%.
- 8. MgO, CPR and Excess Factor results for all of panel 1 and rooms 2-7 of panel 2 have been recalculated to replace averaged data with actual emplaced data.

#### \* Note

Waste emplacement is a three-step process. The first step is emplacement of RH waste into the walls of the emplacement room. The second step involves CH waste emplacement into the room. The third step involves emplacement of MgO onto the waste stacks as each row is completed and the MgO calculations are performed.

### Table 4:

**Performance Assessment, Software, and Hardware Changes** 

 Table 4: Performance Assessment Software, and Hardware Changes

WIPP Use Codes/Software and Code Version	Version Date	Description	New Code Version
GROPECDB 2.12	10/16/12	GROPECDB 2.12 was ported to the new Solaris computer system.	GROPECDB 2.13
GENMESH 6.08	10/24/12	GENMESH 6.08 was ported to the new Solaris computer system.	GENMESH 6.09
ICSET 2.22	10/25/12	ICSET 2.22 was ported to the new Solaris computer system.	ICSET 2.23
RELATE 1.43	10/25/12	RELATE 1.43 was ported to the new Solaris computer system.	RELATE 1.45
ALGEBRACDB 2.35	10/31/12	ALGEBRACDB 2.35 was ported to the new Solaris computer system.	ALGEBRACDB 2.36
PRECCDFGF 1.01	11/19/12	PRECCDFGF 1.01 was ported to the new Solaris computer system.	PRECCDFGF 1.06
PANEL 4.03	11/27/12	PANEL 4.03 was ported to the new Solaris computer system.	PANEL 4.04
CCDFGF 5.02	11/28/12	CCDFGF 5.02 was ported to the new Solaris computer system.	CCDFGF 5.03
SUMMARIZE 3.01	12/12/12	SUMMARIZE 3.01 was ported to the new Solaris computer system.	SUMMARIZE 3.02
MATSET 9.20	12/12/12	MATSET 9.20 was ported to the new Solaris computer system.	MATSET 9.21
PREBRAG 8.00	01/14/13	PREBRAG 8.00 was modified to work with the new BRAGFLO 6.02.	PREBRAG 8.02

 Table 4: Performance Assessment Software, and Hardware Changes

WIPP Use Codes/Software and Code Version	Version Date	Description	New Code Version
BRAGFLO 6.0	1/14/13	BRAGFLO 6.0 was updated to include the reaction of hydromagnesite to magnesite.	BRAGFLO 6,02
POSTBRAG 4.00a	1/31/13	POSTBRAG 4.00a was ported to the new Solaris computer system.	POSTBRAG 4.02
BRAGFLO 6.02	3/13/13	BRAGFLO 6.02 was ported to the new Solaris computer system.	BRAGFLO 6.03
PREBRAG 8.02	3/18/13	PREBRAG 8.02 was ported to the new Solaris computer system.	PREBRAG 8.02
CUTTINGS_S 6.02	3/19/13	CUTTINGS_S 6.02 was ported to the new Solaris computer system.	CUTTINGS_S 6.03
PRELHS 2.40	4/1/13	PRELHS 2.40 was ported to the new Solaris computer system.	PRELHS 2.41
POSTLHS 4.07A	4/1/13	POSTLHS 4.07A was ported to the new Solaris computer system.	POSTLHS 4.08
LHS 2.42	5/28/13	LHS 2.42 was ported to the new Solaris computer system.	LHS 2.43
NUTS 2.05C	6/25/13	NUTS 2.05C was ported to the new Solaris computer system.	NUTS 2.06

## Table 5:

**Passive Institutional Controls Activity** 

**Table 5: Passive Institutional Controls Activity** 

Date	Description of Activity
	CBFO members attended, via teleconference, the third Records, Knowledge and Memory (RK&M) workshop
September 14, 2012	held by the Nuclear Energy Agency (NEA) in Paris, France. Both Abe Van Luik and Russ Patterson gave
	presentations, one on the tsunami stones in Japan and the second on the current WIPP Passive Institutional
	Controls (PICs) program which includes record archives. The group agreed that the final products of the
	RK&M group should be the preservation of records, knowledge and memory only. RK&M will also include
	helping future generations make informed decisions.
June 2013	CBFO distributed an international call for papers and presentations to be given at Waste Management
	Symposium 2014. Both a panel session and an oral/poster session on RK&M for geologic repositories of
	nuclear waste will be offered. These sessions will be used by CBFO to gather information to revise the WIPP
	PICs conceptual model and establish an Expert Judgment based upon the international consensus for all
	geologic repositories of nuclear waste.

## Table 6:

**EPA Waste Characterization Inspections – January 2008 to June 2013** 

**Table 6: EPA Waste Characterization Inspections** 

Generator Site	Date of Inspection	EPA Inspection No./Tier 1 Evaluation	Docket Number/Approval Date
Advanced Mixed	March 2, 2010,	Tier 1 evaluation adding	EPA Docket No. A-98-49; II-14-127, June 10, 2010
<b>Waste Treatment Plant</b>	Desk-top evaluation	BN510 waste stream	
(AMWTP)/Accelerated	November 17-18,	EPA unannounced continued	EPA Docket No. A-98-49; II-A4-143, March 16, 2011
Retrieval Project	2010	compliance inspection	
(ARP)	October 30 to	EPA Continued Compliance	EPA Docket No. A-98-49; II-A4-173, April 25, 2013
	November 1, 2012,	Inspection	
	and		
	February 26, 2013		
Argonne National	May 28, 2008	Tier 1 SRS-CCP RH Visual	EPA Docket No. A-98-49; II-A4-102, July 10, 2008
Laboratory-Illinois		Examination (VE) newly	
(ANL)	N. 20.21.2010	packaged waste	EDA D. 1 (N. A. 00 40 H. A.4.122 G. (1. 1.2.2010)
	May 20-21, 2010,	Tier 1 SRS-CCP addition of	EPA Docket No. A-98-49; II-A4-132, September 13, 2010
	Desk-top evaluation	30 containers to AERHDM	
	June 29, 2010,	waste stream Tier 1 SRS-CCP addition of	EPA Docket No. A-98-49; II-A4-134, September 28, 2010
	Desk-top evaluation	120 containers to AERHDM	EFA Docket No. A-96-49, II-A4-134, September 28, 2010
	Desk-top evaluation	waste stream	
	May 4 & 18, 2010	Tier 1 SRS-CCP addition of	EPA Docket No. A-98-49; II-A4-140, November 22, 2010
	EPA Inspection	30-gallon containers of Fuel	Li 11 Docket 110. 11 70 +7, 11 114 140, 110 veilioei 22, 2010
	Li 71 inspection	Examination Waste (FEW)	
		to previously approved RH	
		debris AERHDM waste	
		stream	
	September 2011	Tier 1 to add eight 55-	EPA Docket No. A-98-49, II-A4-158, February 13, 2012
	EPA Inspection	gallon K-Wing FEW	
	_	containers to RH debris	
		waste stream AERHDM	
	January 3, 2012	Tier 1 to evaluate Radiation	EPA Docket No. A-98-49: II-A4-162, June 14, 2012

**Table 6: EPA Waste Characterization Inspections** 

Generator Site	Date of Inspection	EPA Inspection No./Tier 1 Evaluation	Docket Number/Approval Date
	EPA Inspection	Characterization Approach	
	(11-2060)	of Solidified Liquid Waste from K-Wing, Building 205,	
		55- gallon	
	February –	Tier 1 debris from the	EPA Docket No. A-98-49; II-A4-140, October 4, 2012
	June,2012 EPA	RERTR program and the	Li 11 Docket 110. 11-70-47, 11-114-140, October 4, 2012
	Inspection	second batch of FEW	
	Desk-top Review	packaged in 30-gallon	
		containers	
	February – June,	Tier 1 to evaluate solidified	EPA Docket No. A-98-49; II-A4-162, June 14, 2012
	2012	liquid waste from K-Wing,	
	EPA Inspection	Bld. 205, 55-gallon drum	
	_	-	
	May 8-9, 2012	Tier 1 to include Lot 2 waste	EPA Docket No. A-98-49; II-A4-163, July 25, 2012
	EPA Inspection	ID-ANLE-S5000	
	EPA Inspection July	Tier 1 of the analytical	EPA Docket No. A-98-49; II-A4-165, September 4, 2012
	31-August 1, 2012	chemistry lab (ACL)	
	September, 2012	Tier 1 evaluation of waste	EPA Docket No. A-98-49; II-A4-167, October 4, 2012
	EPA Desktop	stream AERHDM Reduced	
	Evaluation	Enrichment Research and	
		Test Reactor (RERTR) and	
		second batch debris (bld.	
D-44!- A4! D	A	212, 30-gallon container)	EDA D1-4 N A 00 40, H A 4 151 J 1 2011
Bettis Atomic Power	August 30, 2010,	EPA Baseline Inspection No. EPA-BAPL-CCP-RH-	EPA Docket No. A-98-49; II-A4-151, July 2011
Laboratory (BAPL)	September 23, 2010, December 8, 2010	04.11-8	
	and April 12-13,	04.11-8	
	2011		
	EPA Baseline		
	Inspection –		
General Electric	December 2-4, 2008	CCP RH Initial Certification	EPA Docket No. A-98-49; II-A4-115, August 26, 2009

**Table 6: EPA Waste Characterization Inspections** 

Generator Site	Date of Inspection	EPA Inspection No./Tier 1 Evaluation	Docket Number/Approval Date
Vallecitos Nuclear Center (GEVNC)			
Hanford	April 27-29, 2010	CH Baseline Inspection	EPA Docket No. A-98-49; II-A4-138, December 21, 2010
Idaho National Laboratory (INL)	June 9, 2008, Desk-top evaluation	Tier 1 Waste Area Groups (WAGS) density range extension	EPA Docket No. A-98-49; II-A4-107, October 7, 2008
	December 9-11, 2008	Tier 1 addition of VE CH S5000 retrievably stored waste stream	EPA Docket No. A-98-49; II-A4-110, March 4, 2009
	December 8-9, 2009	Tier 1 addition of ID-HFEF-S5400-RH Lot 1A and ID-ANLE-S5000 waste streams	EPA Docket No. A-98-49; II-A4-122, February 1, 2010
	April-May 2010 Desk-top evaluation	Tier 1 addition of ID-MFC-S5400-RH waste stream	EPA Docket No. A-98-49; II-A4-126, June 11, 2010
	December 8-9, 2009, January 12-13, 2010, and February 17, 2010	Tier 1 addition of ID-INTEC-RH waste stream	EPA Docket No. A-98-49; II-A4-130, August 17, 2010
	July 13, 2009, to June 2010 Desk-top evaluation	Tier 1 addition of Osprey and ID-HFEF-S5400-RH Lot 1B waste stream	EPA Docket No. A-98-49; II-A4-131, August 23, 2010
	July 1, 2009 Desk-top evaluation	Tier 1 High Efficiency Neutron Counter (HENC) operating range extension	EPA Docket No. A-98-49; II-A4-119, September 22, 2010
	September 22, 2009	Tier 1 addition of ID-RTC-S3000 waste stream	EPA Docket No. A-98-49; II-A4-137, November 1, 2010
	August 9-10, 2010	Tier 1 addition of	EPA Docket No. A-98-49; II-A4-135, November 1, 2010

**Table 6: EPA Waste Characterization Inspections** 

Generator Site	Date of Inspection	EPA Inspection No./Tier 1 Evaluation	Docket Number/Approval Date
		IN-ID-NRF-153 waste stream	
	November 16-17, 2010	Continued Compliance Inspection	EPA Docket No. A-98-49; II-A4-142, March 16, 2011
	October 4-5, 2011	Tier 1 to include RH waste stream IN-ID-NRF-SPC	EPA Docket No. A-98-49; II-A4-159, March 12, 2012
	May 8-9, 2012	Tier 1 radiation approach of 48 additional canisters for waste stream ID-ANLE- S5000 AERHDM (Lot 2)	EPA Docket No. A-98-49; II-A4-163, July 25, 2012
	February, 2013	Tier 1 evaluate SGRS new calibration	EPA Docket No. A-98-49; II-A4-172, February 26, 2013
	May 7-9, 2013	Continued Compliance Inspection	Report Pending
Los Alamos National Laboratory (LANL)	May 8-10, 2007	Initial RH Certification	EPA Docket No. A-98-49; II-A4-96, February 19, 2008
•	May 25-26, 2010	Tier 1 HENC unit 2 Report (non-approval)	EPA Docket No. A-98-49; II-A4-139, November 8, 2010
	May 25-26, 2010	LANL-CCP CH TRU Continued Compliance Inspection	EPA Docket No. A-98-49; II-A4-141, February 9, 2011
	April 28, 2010 (10-0810)	CH Tier 1 request expanding the calibration range to the HENC unit 2 to accommodate CH lead-lined 55- gallon drums	EPA Docket No. A-98-49; II-A4-139, April 30, 2012
	June 20-21, 2012	CH Tier 1 request for calibration range extension for the Super HENC and the	EPA Docket No. A-98-49; II-A4-164, August 14, 2012

**Table 6: EPA Waste Characterization Inspections** 

Generator Site	Date of Inspection	EPA Inspection No./Tier 1 Evaluation	Docket Number/Approval Date
		extend ability for the HENC unit 1 to assay lead-lined 55- gallon drums containing solidified materials	
	September – November, 2012	Tier 1 approval to add summary category group S4000	EPA Docket No. A-98-49; II-A4-168, December 31, 2012
	June 4-5, 2013	Tier 1 to include the MILCC	Report Pending
Oak Ridge National	June 2007	CH Baseline Inspection	EPA Docket No. A-98-49; II-A4-103, August 25, 2008
Laboratory (ORNL)	(Desk-top	Tier 1 CH Calibration	EPA Docket No. A-98-49; II-A4-108, October 8, 2008
	evaluation)	Extension for segmented gamma scanner (SGS)	
	November 17, 2008	Tier 1 CH Calibration Extension for Drum Waste Assay System (DWAS) Imaging Passive Active Neutron (IPAN)	EPA Docket No. A-98-49; II-A4-109, January 8, 2009
	June 30-July 2, 2008	EPA RH Baseline Inspection No. EPA-ORNL-CCP-RH- 06.08-8	EPA Docket No. A-98-49; II-A4-111, February 3, 2009
	May 6, 2009	Tier 1 OR-REDC-RH-HET to include Solvent Extraction Test Facility (SETF) Time Period (November 1978- November 1991) waste	EPA Docket No. A-98-49;II-A4-120, November 30, 2009
	August 11-12, 2009	Tier 1 addition of CH S4000 SCG waste	EPA Docket No. A-98-49; II-A4-117, October 7, 2009
	February 23-24, 2010	Tier 1 addition of CH VE and adding the IQ3	EPA Docket No. A-98-49; II-A4-125, March 30, 2010
	February-March,	Tier 1 addition of RH SETF	EPA Docket No. A-98-49; II-A4-124, April 21, 2010

**Table 6: EPA Waste Characterization Inspections** 

Generator Site	Date of Inspection	EPA Inspection No./Tier 1 Evaluation	Docket Number/Approval Date
	2010	Pre-79 waste stream	
	Desk-top evaluation		
Sandia National	December, 2011-	Tier 1 to include RH	EPA Docket No. A-98-49; II-A4-160, March 28, 2012
Laboratory (SNL)	January, 2012	containers generated from	
		waste groups PKE00027/54	
		and PKE00047 to existing	
		waste stream	
		SNL-HCF-S5400-RH	
Savannah River Site	July 17-19, 2007,	Tier 1 addition of SRS	EPA Docket No. A-98-49; II-A4-104, August 25, 2008
(SRS)	July 31-August 2,	Battelle Columbus	
	2007, and December	Laboratory (BCL) waste	
	4-5, 2007	stream SR-RL-BCLDP.001	
	March 24-26, 2009	Tier 1 addition of Non-	EPA Docket No. A-98-49; II-A4-114, August 4, 2009
		destructive Assay Box	
	G . 1 . 20 2010	Counter (NABC)	ED D. 1 . N. A 00 40 H A 4 122 M 1 22 2010
	September 30, 2010	Tier 1 addition of CH S3000	EPA Docket No. A-98-49; II-A4-123, March 23, 2010
	Desk-top evaluation	waste	EDA D. 1 (N. A.00 40 H.A.4.100 C. (1. 1.2.2010)
	November 2009 –	Tier 1 addition of	EPA Docket No. A-98-49; II-A4-129, September 13, 2010
	March 2010	SR-BCLDP.001.001,	
		SR-BCLDP.001.002, SR-BCLDP.002,	
		SR-BCLDP.002, SR-BCLDP.003,	
		SR-BCLDP.003, SR-BCLDP.004.002,	
		SR-BCLDP.004.002, SR-BCLDP.004.003 waste	
		streams	
	March 24-26, 2009	Tier 1 extension of	EPA Docket No. A-98-49; II-A4-133, September 14, 2010
	1,141611 2 : 20, 2009	calibration to the NABC	2777 3 concert (0.717 ) 0 13, 11 11 123, september 11, 2010
	May 12, 2011	Tier 1 allowing use of	EPA Docket No. A-98-49; II-A4-148, May 31, 2011
	timeframe, EPA	American Society for	
	Desk-top evaluation	Testing and Materials	
	1	(ASTM) standard efficiency	

**Table 6: EPA Waste Characterization Inspections** 

Generator Site	Date of Inspection	EPA Inspection No./Tier 1 Evaluation	Docket Number/Approval Date
		calibration method for NABC	
	July 26, 2011 (11-1419)	RH EPA Baseline adding SR-RH-FBL.01 (remainder of RH at SRS)	EPA Docket No. A-98-49; II-A4-161, April 18, 2012
	August 14-15, 2012	Tier 1 request for using five- foot setback configuration of the NABC	EPA Docket No. A-98-49; II-A4-166, September 11, 2012
	February, 2013	Tier 1 to evaluate waste stream SR-RH-235F.01	EPA Docket No. A-98-49; II-A4-170, February 12, 2013

### Table 7:

EPA Quality Assurance Audits by Site – January 2008 to June 2013

**Table 7: EPA Quality Assurance Audits by Site** 

Site	Date	Purpose
Advance Mixed	August 18-20,	Recertification Audit A-09-19
Waste	2009	
<b>Treatment Plant</b>	August 23-26,	Recertification Audit A-10-24
	2010	
	November 1-3,	Recertification Audit A-12-03
	2011	
	October 15-18,	Recertification Audit A-13-01
	2012	
Argonne	July 10, 2008	RH VE Newly Packaged Waste Audit A-08-03
National	August 5-7, 2008	CCP RH Recertification Audit A-08-24
Laboratory	August 4-6, 2009	CCP RH Recertification Audit A-09-21
East-CCP	August 3-5, 2010	CCP RH Recertification Audit A-10-23
	August 2-4, 2011	CCP RH Recertification Audit A-11-20
	August 28-30,	CCP RH Recertification Audit A-12-16
	2012	
	December 19, 2012	CCP Recertification Audit A-12-16
<b>Bettis Atomic</b>	April 19-21, 2011	Initial Certification Audit A-11-12
Power	April 24-26, 2012	Closeout Audit A-12-10
Laboratory		
(BAPL)	7 40 7 1 4	
Carlsbad Field	June 29-July1,	Audit of the DOE Peer Review used to qualify
Office	2010	historical information for TRU waste streams SR-
	August 3-4, 2010	BCLDP-004.002 and SR-BCLDP-004.003. EPA
	A :: ::1 0 20 2012	Docket No. A-98-49; II-A1-108.
	April 8-29, 2013	Remote records audit of CBFO technical assistance
General Electric	December 2-4,	Contractor Initial RH S5000 Certification Audit A-09-05
Vallecitos	2008	Illitial KII 55000 Certification Audit A-09-05
Nuclear Center	January 26-28,	Recertification Audit A-10-04
(GEVNC)-CCP	2010	Receitification Mudit 13-10-04
Hanford-CCP	April 6-8, 2010	Initial Certification Audit A-10-07
	April 5-7, 2011	Recertification Audit A-11-10
	May 14-17, 2012	Recertification/Closeout Audit A-12-11
	May 14-16, 2013	Recertification Audit A-13-15
Idaho National	January 29-30,	Expansion Audit (NMED approval of Acceptable
Laboratory-	2008	Knowledge (AK)) Audit A-08-11
(INL) CCP	May 13-15, 2008	Recertification Audit A-08-10 INL and A-08-22 ID
	., .,	Labs
	December 9-11,	VE of Records Audit A-09-08
	2008	
	May 5-7, 2009	Recertification Audit A-09-14 INL and A-09-13 ID
		Labs
	June 8-10, 2010	Recertification Audit A-10-16 INL and A-10-17 ID
		Labs

**Table 7: EPA Quality Assurance Audits by Site** 

Site	Date	Purpose
	June 7-9, 2011	Recertification Audit A-11-13 INL Labs and A-11-14
		INL
	June 11-14, 2012	Laboratory Recertification Audit A-12-14 and CCP
		Recertification Audit A-12-13
	June 3-6, 2013	Recertification Audit A-13-18
	June 9-11, 2013	Laboratory Close Out Audit A-13-19
Los Alamos	February 19, 2008	Initial Certification Audit A-07-12 and A-07-13
National	April 15-17, 2008	CCP CH and RH Recertification Audit A-08-16
Laboratory-	December 9-11,	Addition of VE CH S5000 Retrievably Stored Waste
CCP	2008	Audit A-09-08
	April 7-9, 2009	CCP CH and RH Recertification Audit A-09-12
	April 27-29, 2010	CCP CH and RH Recertification Audit A-10-14
	May 17-19, 2011	CCP CH and RH Recertification Audit A-11-11
	July 24-26, 2012	CCP CH and RH Recertification Audit A-12-12
Oak Ridge	November 13-15,	AK and NDA Activities Audit A-08-06
National	2007	
Laboratory-	June 30-July 2,	Initial RH Certification Audit A-08-12
CCP	2008	
	January 13-15,	CH Recertification Audit A-09-07
	2009	
	June 23-25, 2009	RH Recertification Audit A-09-22
	July 28-30, 2009	Addition of S4000 SCG Audit A-09-24
	February 9-11, 2010	CH and RH Recertification Audit A-10-08
	February 8-10, 2011	CH and RH Recertification Audit A-11-08
	March 27-29, 2012	CH and RH Recertification Audit A-12-08
	April 23-25, 2013	CH and RH Recertification Audit A-13-12
Savannah River Site-CCP	October 28-30, 2008	CH and RH Recertification Audit A-09-01
	March 24-26, 2009	Addition of NABC Audit A-09-17
	June 23-24, 2009	Addition of Real-time Radiography (RTR) #4 Audit A-09-16
	October 27-29,	BCL RH Recertification and CH S3000 Initial
	2009	Certification Audit A-10-01
	October 26-28,	Recertification Audit A-11-01 and RTR Unit 4 for
	2010	SLB2s and LCNDE for SWBs and SLB2s.
	November 6-8, 2012	CCP Recertification Audit A-12-02
Sandia National	July 13-15, 2011	Recertification Audit A-11-23
Laboratories - CCP	August 14-16, 2012	Closeout Audit A-12-15

#### **Summary**

The DOE believes the changes reported in this version of the WIPP Change Report do not represent significant changes pertaining to the disposal system.

#### **References**

Letter from Reyes (EPA) to Moody (DOE), March 7, 2008. Passive Institutional Controls update.

EPA request, July 29, 2010. Addition of Tables 6 and 7 to the Annual Change Report.

Letter from Reyes (EPA) to Moody (DOE), February 11, 2008. Reduction of MgO excess factor from 1.67 to 1.20.