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

December 11, 2024

Ms. Lee Ann B. Veal, Director
Radiation Protection Division
Office of Radiation and Indoor Air
Environmental Protection Agency
William Jefferson Clinton Building, West
1301 Constitution Ave. NW, Mail Code 6608T
Washington, D.C. 20004

Subject: DOE/WIPP-24-2500, Waste Isolation Pilot Plant Annual Change Report 2023/2024

Dear Ms. Veal:

The purpose of this letter is to submit the Waste Isolation Pilot Plant (WIPP) Annual Change Report 2023/2024 (DOE/WIPP-24-2500), which covers the reporting period of July 1, 2023, to June 30, 2024.

Mr. Michael Gerle, Director, Carlsbad Field Office, Environmental Regulatory Compliance Division, is your point of contact regarding any questions. Mr. Gerle can be reached at (575) 988-5372.

Sincerely,

MARK BOLLINGER

Digitally signed by MARK BOLLINGER
Date: 2024.12.11 16:20:06 -07'00'

Mark Bollinger
Manager
Carlsbad Field Office

Enclosure

cc: w/enclosure

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CBFO:ERCD:MG:RS:24-0870

Waste Isolation Pilot Plant
Annual Change Report 2023/2024

DOE/WIPP-24-2500, Rev. 0

July 1, 2023, through June 30, 2024

December 2024

Prepared for:
The U.S. Department of Energy

Prepared by:
LATA
under subcontract with
Salado Isolation Mining Contractors, LLC

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1.0 Acronyms and Abbreviations

AMWTP	Advanced Mixed Waste Treatment Program
BATS	Brine Availability Test in Salt
CBFO	Carlsbad Field Office
CCP	Central Characterization Program
CFR	Code of Federal Regulations
CH	contact-handled
CPR	cellulose, plastic, and rubber
CRA	Compliance Recertification Application
DOE	U.S. Department of Energy
ECN	Engineering Change Notice
EPA	U.S. Environmental Protection Agency
FEPs	Features, Events, and Processes
FTIR	Fourier Transform Infrared
FY	fiscal year
HP	heater packer
HWFP	Hazardous Waste Facility Permit
JHA	Job Hazard Analysis
kg	kilogram
LBRE	Low Background Radiation Experiment
LWA	Land Withdrawal Act
m^3	cubic meters
MgO	magnesium oxide
NMSU	New Mexico State University
NP	Nuclear Waste Management Procedure
NWP	Nuclear Waste Partnership LLC
ORNL	Oak Ridge National Laboratory
Q	Quarterly
QA	Quality Assurance
QAPD	Quality Assurance Program Document
RH	remote-handled
SIMCO	Salado Isolation Mining Contractors
SP	Activity/Project Specific Procedure
SRS	Savannah River Site
TRU	transuranic
WIPP	Waste Isolation Pilot Plant
WP	WIPP Procedure

2.0 Introduction

Title 40 of the Code of Federal Regulations (CFR) Part 194, *Criteria for the Certification and Re-Certification of the Waste Isolation Pilot Plant's Compliance with 40 CFR Part 191 Disposal Regulations* (EPA 1996), requires the U.S. Department of Energy (DOE) to provide information on changes, both significant and non-significant, in conditions or activities pertaining to the Waste Isolation Pilot Plant (WIPP) disposal system since the most recent Compliance Recertification Application (CRA). This report summarizes the non-significant changes pursuant to 40 CFR §194.4(b)(4), which states:

> "Not 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."

Each November, the DOE provides the U.S. Environmental Protection Agency (EPA) with a report describing relevant changes to information contained in the most recent compliance application (i.e., the 2019 Compliance Recertification Application [DOE 2019]). The reporting period for the annual report is July 1, 2023, to June 30, 2024.

In a June 17, 2002, letter to the DOE, the EPA provided examples of routine operations and maintenance activities for the WIPP facility that are considered to be non-significant to the compliance certification/recertification (Marcinowski 2002c). Examples of these activities include mining a ventilation overcast; installing equipment/instruments related to geomechanical and groundwater monitoring as required by the EPA; and installing ground-control monitoring devices.

Proposed changes in WIPP facility activities or conditions are reviewed to determine if 40 CFR §194.4(b)(4) reporting is necessary. The annual report summarizes the items identified as requiring reporting under 40 CFR §194.4(b)(4) (EPA 1996). Most of the items reported are inspections, reports, and modifications to written plans and procedures for WIPP facility operations.

Significant planned changes are reported by the DOE to the EPA, via Planned Change Notifications or Planned Change Requests, prior to implementation. Significant changes include those that would result in crucial information contained in the compliance certification/recertification no longer being valid or would result in noncompliance with the requirements of 40 CFR Part 191 and the criteria in 40 CFR Part 194. Planned changes are submitted on an individual basis. Significant unplanned changes are reported to the EPA within 24 hours, or 10 days, in accordance with 40 CFR §194.4(b)(3).

This report describes each non-significant change that was made during the reporting period of July 1, 2023, to June 30, 2024, as well as additional information requested by the EPA, in seven tables described below. Conditions, activities, or information reportable per 40 CFR §194.4(b)(4) are as follows:

- Table 1, *Changes in WIPP Conditions or Activities Reportable Under 40 CFR §194.4(b)(4) during the Reporting Period*, documents EPA and DOE interactions during the reporting period, with a high-level summary of each correspondence.

- Table 2, *Procedure/Plan Revision during the Reporting Period*, documents changes to relevant plans and procedures during the reporting period.

- Table 3, *Waste Emplacement Summary Report during the Reporting Period*, documents the transuranic (TRU) waste disposed inventory for the WIPP waste parameters. The summary provides the total emplaced inventory in the repository as of June 30, 2024.

- Table 4, *Performance Assessment, Software, and Hardware Changes during the Reporting Period*, documents the changes to relevant codes, software, and hardware that have occurred during the reporting period.

This report also includes additional information, not required by regulation, which has been requested by the EPA, as described below:

- Table 5, *Passive Institutional Controls Activity during the Reporting Period*, documents activities applicable to the development of Passive Institutional Controls. This table was added at the request of the EPA (Reyes 2008a).

- Table 6, *EPA Waste Characterization Inspections during the Reporting Period*, documents inspections performed by the EPA pertaining to Tier 1 changes to the baseline approvals at TRU waste generator/storage sites. This table was added to the Annual Change Report at the request of the EPA during the EPA/DOE management meeting held on July 29, 2010.

- Table 7, *Quality Assurance Assessments by Site/Organization during the Reporting Period*, documents assessments (i.e., audits and surveillances) performed to evaluate the adequacy and implementation of WIPP participant organizations' quality assurance (QA) programs. This table was added to the Annual Change Report at the request of the EPA during the EPA/DOE management meeting held on July 29, 2010, and has since evolved to include all pertinent assessment information.

In response to the EPA's 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/recertification criteria. This report does not include administrative changes to procedures, such as editorial changes, reformatting, correcting references, correcting inconsistency within a procedure, and other changes that do not alter the substance or intent of the document.

3.0 Conditions, Activities, or Information Reportable per 40 CFR §194.4(b)(4)

Table 1. Changes in WIPP Conditions or Activities Reportable Under 40 CFR §194.4(b)(4) during the Reporting Period

Regulatory Requirements	Implementing Document or Activity that Changed	Description of the Change
40 CFR §194.4(b)(3), Conditions of Compliance Certification	Planned Change Notices and Planned Change Requests	DOE to EPA, July 12, 2023 Planned Change Notice for Start of Experimental Activities Associated with Sensor Testing in the WIPP Northern Underground Experimental Area (Bollinger 2023b). EPA to DOE, August 17, 2023 Response to the DOE's Planned Change Notice regarding the start of experimental activities to test a hydrogen safety sensor (Veal 2023b). EPA to DOE, September 15, 2023 Response to the DOE's Planned Change Notice for the addition of four new shielded-container variants (Veal 2023c). DOE to EPA, March 12, 2024 Planned Change Request for the use of Replacement Panels 11 and 12 (Bollinger 2024a). EPA to DOE, April 17, 2024 First set of questions on the Replacement Panels Planned Change Request (RPPCR) (Peake 2024c). EPA to DOE, April 24, 2024 Second set of questions on the RPPCR (Peake 2024d). EPA to DOE, May 10, 2024 Third set of questions on the RPPCR (Peake 2024e).

Regulatory Requirements	Implementing Document or Activity that Changed	Description of the Change
		DOE to EPA, June 5, 2024 Notification for Start of Experimental Activities Associated with Storage of a Nonflammable Gas Mixture Containing Hydrogen in Permian Basin Bedded Salt Formations (Bollinger 2024c). EPA to DOE, June 27, 2024 Fourth set of questions on the RPPCR (Peake 2024h). EPA to DOE, June 27, 2024 Response to the DOE's notification regarding the start of experimental activities associated with the storage of a nonflammable gas mixture containing hydrogen in bedded salt (Veal 2024).
40 CFR §194.4(b)(4), Conditions of Compliance Certification	2022/2023 Annual Change Report	DOE to EPA, November 16, 2023 DOE/WIPP-23-2500, Waste Isolation Pilot Plant Annual Change Report 2022/2023 (DOE 2023b). DOE to EPA, February 5, 2024 Waste Isolation Pilot Plant Annual Change Report 2021/2022, Revision 1 (DOE 2024c).
40 CFR §194.8, Approval Process for Waste Shipment from Waste Generator Sites for Disposal at the WIPP	Waste Generator Site Certification and Tier 1 Evaluations	See Table 6: *EPA Waste Characterization Inspections during the Reporting Period.*
40 CFR §194.8, Approval Process for Waste Shipment from Waste Generator Sites for Disposal at the WIPP	Tier 2 Reports	DOE to EPA, July 12, 2023 Response to EPA Request for Documents from the Carlsbad Field Office (CBFO) Notification of Tier 2 Changes for the Fiscal Year (FY) 2023 First Quarter (Bollinger 2023a).

Regulatory Requirements	Implementing Document or Activity that Changed	Description of the Change
		DOE to EPA, July 17, 2023 CBFO Notification of Tier 2 Changes for Advanced Mixed Waste Treatment Program (AMWTP) and Central Characterization Program (CCP) Activities for FY 2023, 2nd Quarter (Bollinger 2023c). DOE to EPA, October 2, 2023 CBFO Notification of Tier 2 Changes for AMWTP and CCP activities for FY 2023, 3rd Quarter (Bollinger 2023d). DOE to EPA, November 2, 2023 CBFO Response to EPA Request from the CBFO Notification of Tier 2 Changes for the Fiscal Year 2023, Second Quarter and Third Quarter (Bollinger 2023e). DOE to EPA, December 19, 2023 CBFO Notification of Tier 2 Changes for AMWTP and CCP Activities for FY 2023, 4th Quarter (Bollinger 2023f). DOE to EPA, March 26, 2024 CBFO Notification of Tier 2 Changes for AMWTP and CCP Activities for FY 2024, 1st Quarter (Bollinger 2024b). DOE to EPA, April 15, 2024 CBFO Response to EPA Request from the CBFO Notification of Tier 2 Changes for the Fiscal Year 2023 Fourth Quarter (Bollinger 2024d). DOE to EPA, June 27, 2024 CBFO Notification of Tier 2 Changes for AMWTP and CCP

Regulatory Requirements	Implementing Document or Activity that Changed	Description of the Change
		Activities for FY 2024, 2nd Quarter (Bollinger 2024e).
40 CFR §194.11-15	Certification/Recertification	EPA to DOE, August 10, 2023 EPA concurrence with the May 1, 2023, DOE request to update the CRA submission schedule to five years after the date of the most recent completeness determination and EPA transmittal of Revision 1 of *Guidance to the U.S. Department of Energy on Preparation for Recertification of the Waste Isolation Pilot Plant with 40 CFR Parts 191 and 194* (Veal 2023a).
40 CFR §194.14(b)(4), Design of the Disposal System	Status of Experiments in the WIPP Underground	**Low Background Radiation Experiment** The Low Background Radiation Experiment (LBRE) has been conducting research at WIPP (surface and underground). The research consists of growing, handling, culturing, and testing organisms in a low background radiation environment. July 1, 2023 – September 30, 2023. For quarter one, New Mexico State University (NMSU) conducted two experiments related to mosquitos (*Aedes aegypti*) at the WIPP. October 1, 2023 – December 31, 2023 For quarter two, NMSU has conducted one experiment related to mosquitos (*Aedes aegypti*) at the WIPP. January 1, 2024 – March 31, 2024

Regulatory Requirements	Implementing Document or Activity that Changed	Description of the Change
		For quarter three NMSU did not conduct any experimental work at the WIPP. April 1, 2024 – June 30, 2024 For quarter four NMSU conducted experimental work at the WIPP for the low background radiation effects on the fruit fly (*Drosophila melanogaster*). **Canister Heater Operational Testing** July 1, 2023 – September 30, 2023. Currently, there is no power to this experiment. There has been no testing since September 2022. October 1, 2023 – December 31, 2023 Power to the canister heater was restored in November 2023. On 11/27/2023 the canister heater was powered to 1,000 watts and canister heater operational testing resumed. January 1, 2024 – March 31, 2024 Canister heater operational testing continued with the 1,000-watt power set point. April 1, 2024 – June 30, 2024 Canister heater operational testing continued with the 1,000-watt power set point. **Salt Disposal Investigations/Salt Defense Disposal Investigations** Experiments conducted to understand how salt and brine water behave near heat-producing

Regulatory Requirements	Implementing Document or Activity that Changed	Description of the Change
		waste packages to provide a sound technical basis for multiple viable disposal options in the United States. <u>July 1, 2023 – September 30, 2023</u> Brine Availability Test in Salt (BATS) equipment operating in quarter one includes LI-COR® gas analyzer, electrical resistivity tomography, fiber optic, linear variable differential transformer, acoustic emission, gas analyzer, thermocouples, resistance temperature detectors, temperature and relative humidity probes, strain gages, mass flow controllers, pressure transducers, Drierite™ brine outflow measurement canisters, and environmental monitoring instrumentation. Brine sampling of the heated sample borehole was conducted seven times. Permeability and tracer gas testing of the heated deuterium borehole is ongoing. No heating cycles were performed during quarter one. <u>October 1, 2023 – December 31, 2023</u> BATS equipment operating in quarter two includes LI-COR® gas analyzer, electrical resistivity tomography, fiber optic, linear variable differential transformer, acoustic emission, gas analyzer, thermocouples, resistance temperature detectors, temperature and relative humidity

Regulatory Requirements	Implementing Document or Activity that Changed	Description of the Change
		probes, strain gages, mass flow controllers, pressure transducers, Drierite™ brine outflow measurement canisters, and environmental monitoring instrumentation. Brine sampling of the heated sample borehole was conducted 13 times. Permeability and tracer gas testing of the heated deuterium borehole is ongoing. One heating cycle was conducted in quarter two with a temperature set point of 140 °C. Ten cold trap samples from the heated heater packer (HP) borehole were collected for water isotopic analysis. <u>January 1, 2024 – March 31, 2024</u> BATS equipment operating in quarter three includes LI-COR® gas analyzer, electrical resistivity tomography, fiber optic, linear variable differential transformer, acoustic emission, gas analyzer, thermocouples, resistance temperature detectors, temperature and relative humidity probes, strain gages, mass flow controllers, pressure transducers, Drierite™ brine outflow measurement canisters, and environmental monitoring instrumentation. Brine sampling of the heated sample borehole was conducted 15 times. Permeability and tracer gas testing of the heated deuterium borehole is ongoing.

Regulatory Requirements	Implementing Document or Activity that Changed	Description of the Change
		One heating cycle was conducted in quarter three with a temperature set point of 140 °C. Twenty-one cold trap samples from the heated HP borehole were collected for water isotopic analysis. <u>April 1, 2024 – June 30, 2024</u> BATS equipment operating in quarter four includes LI-COR® gas analyzer, electrical resistivity tomography, fiber optic), linear variable differential transformer, acoustic emission, gas analyzer, thermocouples, resistance temperature detectors, temperature and relative humidity probes, strain gages, mass flow controllers, pressure transducers, Drierite™ brine outflow measurement canisters, and environmental monitoring instrumentation. Brine sampling of the heated sample borehole was conducted 15 times. Permeability and tracer gas testing of the heated deuterium borehole is ongoing. Two heating cycles were conducted in quarter four with a temperature set point of 140 °C. Nineteen cold trap samples from the heated HP borehole were collected for water isotopic analysis.

Regulatory Requirements	Implementing Document or Activity that Changed	Description of the Change
		Hydrogen Storage Safety Sensor Testing in the Bedded Rock Salt of the Permian Basin Experiment Experiment for testing a hydrogen safety sensor and exploring the feasibility of hydrogen storage in bedded rock salt. <u>July 1, 2023 – September 30, 2023</u> The borehole array was drilled on 9/14/2023 and 9/19/2023. On 9/21/2023, the borehole array was video-logged, measured, and surveyed for data to complete an as-built drawing of the array. For the week of 9/24/2023, infrastructure for the test was put in place, the boreholes had the packers inserted, plumbing from the packers to the equipment cabinet was completed, and the equipment cabinet instrument installation is ongoing. Test initiation is expected to start in quarter two. <u>October 1, 2023 – December 31, 2023</u> Boreholes have been characterized and packers were placed in positions to allow for 3% hydrogen in nitrogen gas migration between boreholes. Hydrogen sensor testing is tentatively scheduled for quarter three.

Regulatory Requirements	Implementing Document or Activity that Changed	Description of the Change
		January 1, 2024 – March 31, 2024 Boreholes were characterized and packers were placed in positions to allow for 3% hydrogen in nitrogen gas migration between boreholes in quarters one and two. Hydrogen sensor testing is tentatively on hold awaiting Principal Investigator feedback regarding the hydrogen sensor. No experimental activities were conducted in quarter three. April 1, 2024 – June 30, 2024 Hydrogen sensor testing is tentatively on hold awaiting Principal Investigator feedback regarding the hydrogen sensor. No experimental activities were conducted in quarter four. **Hydrogen (Nonflammable Gas Mixture) Storage in Permian Basin Bedded Salt Formations Experiment** Experiment for measuring hydrogen diffusion and advective transport to better understand the potential for storing hydrogen in bedded salt. April 1, 2024 – June 30, 2024 No experimental activities were conducted in quarter four.
40 CFR §194.21, Inspections	WIPP Facility and Generator Site Inspections	On November 6, 2023, the EPA issued its reports from the May 16-18, 2023, inspections at the

Regulatory Requirements	Implementing Document or Activity that Changed	Description of the Change
		Waste Isolation Pilot Plant. (Veal 2023d)
40 CFR §194.22, Quality Assurance	Quality Assurance Audit	See Table 7: *EPA Quality Assurance Audits by Site / Organization during the Reporting Period.*
40 CFR §194.22(a), Quality Assurance	Carlsbad Field Office (CBFO) Quality Assurance Program Document	DOE/CBFO-94-1012, Rev. 14, *Quality Assurance Program Document,* effective November 6, 2023. (DOE 2023a)
40 CFR §194.23, Models and Computer Codes	Performance Assessment, Software, and Hardware Changes	See Table 4: *Performance Assessment, Software, and Hardware Changes during the Reporting Period.*
40 CFR §194.24(a) – (c)	Waste Characterization	See Table 3: *Waste Emplacement Summary Report during the Reporting Period.* Also see DOE/TRU-23-3425, *Annual Transuranic Waste Inventory Report – 2023.* (DOE 2024b).
40 CFR §194.25	Future State Assumptions	None to report.
40 CFR §194.26	Expert Judgement	None to report.
40 CFR §194.27	Peer Review	None to report.
40 CFR §194.31	Application of Release Limits	None to report.
40 CFR §194.32	Scope of Performance Assessments	None to report.
40 CFR §194.33	Consideration of Drilling Events in Performance Assessments	None to report.
40 CFR §194.34	Results of Performance Assessments	November 2023, issuance of ERMS 579729, Summary Report for the 2023 Replacement Panels Planned Change Request Performance Assessment (Brunell et al. 2023).
40 CFR §194.41	Active Institutional Controls	None to report.
40 CFR §194.42(a) - (c)	Monitoring	July 1, 2023 – September 30, 2023 September 29, 2023, issuance of DOE/WIPP-23-3591, Rev. 0, *Waste*

Regulatory Requirements	Implementing Document or Activity that Changed	Description of the Change
		Isolation Pilot Plant Annual Site Environmental Report. (DOE 2023c) October 1, 2023 – December 31, 2023 October 31, 2023, issuance of DOE/WIPP-23-3610, *Waste Isolation Pilot Plant Geotechnical Analysis Report.* (DOE 2023d). January 1, 2024 – March 31, 2024 January 4, 2024, issuance of DOE/WIPP-23-2308, *Waste Isolation Pilot Plant Delaware Basin Monitoring Annual Report.* (DOE 2024a). April 1, 2024 – June 30, 2024 None to report.
40 CFR §194.42(d)	Post-closure Monitoring	None to report.
40 CFR §194.42(e)	Pre-closure and Post-closure Monitoring Plans	None to report.
40 CFR §194.43	Passive Institutional Controls	See Table 5: *Passive Institutional Controls Activity during the Reporting Period.*
40 CFR §194.44	Engineered Barriers	None to report.
40 CFR §194.45	Consideration of the Presence of Resources	None to report.
40 CFR §194.46	Removal of Waste	None to report.
40 CFR §§194.51 – 194.55	Individual and Groundwater Protection Requirements	February 2024, issuance of WBS 4.3.1. ERMS 581299, Sandia National Laboratories Compliance Monitoring Parameter Assessment for 2023 (Kicker et al. 2024).

Table 2. Procedure/Plan Revision during the Reporting Period*

*These procedural changes relate only to programs that are important to the demonstration of compliance with EPA's long-term disposal standards at 40 CFR Part 191, Subparts B and C. Changes to operational procedures that are unrelated to long-term compliance are not considered in this report.

Procedure / Plan	Revision Effective Date	Description of Change
DOE/WIPP 99-2194, Waste Isolation Pilot Plant Environmental Monitoring Plan	Revision 14 10/16/2023	Updated Acronyms and Abbreviations. Updated reference WP 13-1. Removed Tut location from dirt tanks list and replaced with Red Lake. Removed paragraph on the Ecological Monitoring Program.
DOE/WIPP 93-004, Waste Isolation Pilot Plant Land Management Plan	Reprint I 10/31/2023	Updated Table 3-2 and Figures 5.1, 8.1, and 10.1. In Chapter 2, Environmental Compliance, updated land use requests instructions. In Chapter 3, Wildlife, added more language and updated definitions. In Chapter 4, Cultural Resources, added more language. In Chapter 6, Recreation, clarified language. Revised text in Section 8.2.7 since Section 6.2.2 already references off-highway vehicles. In Chapter 8, Lands and Realty, updated language throughout. In Chapter 10, Security, made more clarifications. In Chapter 12, Industrial Safety, added signage within the WIPP Land Withdrawal Act (LWA) information. Updated title of subsection 12.2.8 to include occurrences and information in WP 15-CA1010. Updated subsection to include WP 12-IS.01-6. Removed subsection 12.2.11.13, redundant WIPP LWA user information. In Chapter 13, Maintenance and Work Control, added signage within WIPP LWA information. Updated Appendix B to reflect updates in Chapter 2. In Appendix F, added more references/regulations regarding cultural resources. In Appendix H, updated contact lists.
Nuclear Waste Management Procedure (NP) 5-1, Implementing Procedures	Revision 8 04/17/2024	Clarified procedure content and format and added more detail on changing and issuing implementing procedures.

Procedure / Plan	Revision Effective Date	Description of Change
NP 6-2, Document Control Process	Revision 7 05/15/2024	Clarified procedure content and added more detail on changing and issuing controlled documents.
NP 13-1, Control of Samples and Standards	Revision 8 12/06/2023	Revised to clarify how samples and standards are labeled for traceability, use, handling, and archiving. Made other changes to improve the flow of the document for clarity.
NP 17-1, Records	Revision 12 09/25/2023	Modified Section 2.5, "Retrieval of Records" to provide clarification regarding the request for record copies.
NP 19-1, Software Requirements	Revision 20 06/18/2024	Clarified requirements and processes. Added software grading and classification process. Added and removed appropriate definitions.
Activity/Project Specific Procedure (SP) 9-4, Performing FEPs Baseline Impact Assessments for Planned or Unplanned Changes	Revision 6 03/28/2024	Revised to remove references to the CRA-2019 and to reference the newly created Features, Events, and Processes (FEPs) records package.
SP 9-7, WIPP Well Water-Level Monitoring	Revision 11 09/07/2023	Modified to provide clarification regarding battery replacement periodicity and process.
SP 12-9, Calibration, Use, and Maintenance of the Perkin Elmer Optima 8300 Dual View (DV) ICP-AES	Revision 7 10/04/2023	This is a revision associated with the three-year review of the SP. Images of the software were added.
SP 12-10, Calibration, Use, and Maintenance of the Varian Saturn 2100T GC/MS	Revision 2 09/14/2023	This procedure was recalled. Reason for recall: Instrument no longer in lab.
SP 12-24, Calibration of Humidity Meters	Revision 1 10/02/2023	This procedure was recalled. Reason for recall: Humidity meters no longer in use.
SP 12-33, Calibration, Use, and Maintenance of the Accelerated Surface Area and Porosimetry System (ASAP 2020)	Revision 1 07/05/2023	Updated to reflect the latest software update.
SP 12-45, Calibration, Use, and Maintenance of the Jasco FTIR 6800 Spectrometer	Revision 0 06/06/2024	This new procedure is for the Fourier Transform Infrared (FTIR) spectrometer. This procedure describes how to calibrate, use, and maintain the instrument.

Procedure / Plan	Revision Effective Date	Description of Change
SP 12-49, Operation of the Discovery SDT 650 Simultaneous Thermal Analyzer	Revision 0 07/20/2023	This new procedure describes the calibration and use of the SDT 650 Simultaneous Thermal Analyzer.
SP 12-51, Calibration and Use of the Metrohm Multi Autolab/M204 Multi-Channel Potentiostat/Galvanostat	Revision 0 10/12/2023	This new procedure describes the general calibration and use of the multi-channel potentiostat. It is used for electrochemical characterization.
SP 12-52, Calibration, Use, and Maintenance of the Hach DR1900 Portable Spectrophotometer	Revision 0 10/12/2023	This new procedure describes the general use and calibration of the portable spectrophotometer.
WIPP Procedure (WP) 02-1, WIPP Groundwater Monitoring Program Plan	Revision 18 04/18/2024	Changes made per the transition from Nuclear Waste Partnership LLC (NWP) to Salado Isolation Mining Contractor (SIMCO). Reference to WP 02-EM1025 removed. Reference to SP 9-9 has been added. Updated Active Culebra Monitoring Wells in the Water Level Monitoring Program as of February 29, 2024.
WP 02-EC3002, Delaware Basin Drilling Database Upgrade Process	Revision 12 2/08/2024	Changed procedure title. Revised Acronyms/Abbreviations table. Changed IHS Markit to S&P Global. Made changes to Section 5.0, Performance. Added web addresses and status examples to weekly well reports. Updated notes in Section 5.4. Updated Section 5.6 to explain who performs field activities. Updated frequency of seismic-event reporting in Section 5.8. Changed title and updated drilling information on Attachment 1.
WP 02-EC3506, Environmental Incident Reporting	Revision 12 08/01/2023	Removed acronyms and abbreviations table. Deleted references that pertained to Regulatory Environment Services. Added new notification and removed old notification in Section 5.3.1[E]. Added "(airborne or liquid) from fire or other means" to indicate that a release can come from a fire in Sections 1.1, 5.1.1, 5.1.3, 5.1.4. Deleted action to contact agency reports in Section 5.3. In Attachment 1, 1st page, added "(airborne or liquid) from fire or other" to indicate that a release could be due to a fire as well as a spill. Updated contact information on Attachments 1 and

Procedure / Plan	Revision Effective Date	Description of Change
		2. Revised graphic in Attachment 3 due to poor image quality.
WP 02-EM1012, Airborne Particulate Sampling	Revision 25 03/26/2024	Changes made per the SIMCO transition.
WP 02-PC.02, Delaware Basin Drilling Surveillance Plan	Revision 11 02/08/2024	Updated Delaware Basin Drilling and Surveillance Program (DBDSP) company name. Changed IHS Markit to S&P Global. Changed Enverus.com to Drilling Info. Updated the Drilling Rate formula. Clarified that information on gas storage wells is also monitored by the DBDSP. Added a new table, Table 3 Delaware Basin Well Tracking Application Record Categories. Added acronyms and references. Clarified information on noncompliance.
WP 04-VU2001, Interim Ventilation System Operation	Revision 14 05/09/2024	Added STDJHA-439, General Hazard Analysis to references. Updated Limitations to identify Salt Shaft and Air Intake Shaft requirements. Removed Electrical Hazards from Precautions (not in Job Hazard Analysis [JHA]). Added Hazardous Waste Facility Permit (HWFP) Prerequisite requirement (4.1). Added Limitation for HWFP, Part 7, Section 7.3.2.2.
WP 05-WH1010, Container Overpacking	Revision 16 01/25/2024	Added a section for overpack underground. Preoperational to "Pre-evolution". Permit Renewal Implementation, Table – E-1. Added new Attachment 3 "85-Gallon Drum Overpack Data Sheet (Underground)" for Section 5.3.
WP 05-WH1011, CH Waste Processing	Revision 69 04/11/2024	Major rewrite.
WP 05-WH1025, CH Waste Downloading and Emplacement	Revision 34 07/07/2023	Updated reference 13-1 (Quality Assurance Program Plan) per the SIMCO transition.
	Revision 35 11/29/2023	Added WIPP-016 to References.
	Revision 36 05/28/2024	Major rewrite.

Procedure / Plan	Revision Effective Date	Description of Change
WP 05-WH1058, CH Waste Handling Abnormal Operations	Revision 33 06/13/24	Added 05-WH04-1, CH Waste Handling Equipment Operation Guide to Section 2.0, References. Added "TSR" and ($) to Section 3.2, Limitations. Added Section 5.17 Recovery from Abnormal Condition.
WP 05-WH1105, Magnesium Oxide Sample Records Management	Revision 8 12/12/2023	Changes made per SIMCO transition. Updated 13-1 reference. Changed Nuclear Waste Partnership to Waste Isolation Pilot Plant. Changed NWP to WIPP.
WP 05-WH4401, Waste Handling Operator Event Response	Revision 8 12/07/2023	No changes described.
WP 07-1, WIPP Geotechnical Engineering Program Plan	Revision 9 11/16/2023	Changes made per SIMCO transition. Updated NWP to WIPP. Updated reference 13-1.
WP 07-EU1301, Manually Acquired Geomechanical Instrument Data	Revision 14 08/24/2023	Updated reference 13-1 (Quality Assurance Program Plan) per the SIMCO transition. Updated steps 5.1.7 through 5.1.10 to match the vendor Instruction Manual. Updated Precautions to match JHA. Updated references. Removed acronyms and abbreviations table.
WP 08-NT.01, Waste Data System Program and Data Management Plan	Revision 36 11/09/2023	Replaced NWP with WIPP. Section 5.5 replaced the Waste Data System internet address.
WP 08-NT.16, Waste Data System User's Manual	Revision 0 03/05/2024	New Document. 09-3427 was transferred to WP 08-NT.16
WP 09-CN3007, Engineering Change Notice	Revision 54 11/29/2023	Major revision to procedure to match EA09CN3007-1-0 Rev 15. Redlines accepted for ease of readability. Updated References. Cancelled and removed Engineering Change Notice (ECN) Development Checklist, EA09CN3007-10-1, from procedure. Updated Abbreviations and Acronyms. Added Prerequisite steps 4.1-4.2. Added 39, 416 & 417 To Attachment 4, Drawing Number Assignment. Other edits throughout to increase understanding of the procedure. Changed to Reference Use. Deleted flowchart and added information to

Procedure / Plan	Revision Effective Date	Description of Change
		create new Attachment 2. Deleted all instructions to EFR Personnel and directed to work from WP 09-CN3022.
	Revision 55 05/08/2024	Updated references. Deleted requirement in Step 5.12 to align attachments to coincide with the blocks in EA09CN3007-1-0. Removed coinciding statement to align attachments from EA09CN3007-1-0 instructions. Updated Attachment formatting. Editorial updates throughout. Changed EA09CN3007-2-0, Drawing Change Sheet, to EA09CN3058-1-0 to coincide with the new Drawing Process Procedure. Removed detailed information regarding Title Blocks on drawings from Attachment 2, Drawings, Sketches, Specifications, and Manuals. Removed Attachment 4, Drawing Number Assignment. Added 5.15.[C] to allow for partial release of documents tied to an ECN originating prior to EA09CN3007-1-0 Rev 16. Created EA09CN3007-12-0, Legacy Document Release, for partial release of documents.
WP 09-ES.01, WIPP Underground and Surface Surveying Program	Revision 9 11/09/2023	Changes made per the SIMCO transition. Changed the NWP logo to the WIPP logo. Changed Nuclear Waste Partnership to Waste Isolation Pilot Plant (NWP to WIPP).
WP 09-ES.02 WIPP Panel Closure Survey Plan	Revision 5 10/26/2023	Added HWFP banner to cover page. Updated Quality Assurance section. Spelled out acronym HWDU. Added HWFP key step designation to Section 2.0, Regulatory Compliance.
WP 09-ES4001, Subsidence Survey Data Acquisition Report	Revision 9 10/02/2023	Refined steps in Section 5.2, Office Procedure. Clarified data input format in Section 5.1, Field Procedure. Updated figure in Attachment 1, Individual Loops, Total Survey, and Underground Excavations.
WP 10-AD3028, Calibration and Control of Measurement and Test Equipment	Revision 20 11/29/2023	Changes made per the SIMCO transition. Updated NWP to WIPP. Updated reference 13-1.

Procedure / Plan	Revision Effective Date	Description of Change
WP 10-AD3029, Calibration and Control of Monitoring and Data Collection EQ	Revision 17 10/26/2023	Changes made per the SIMCO transition. Updated reference 13-1.
WP 12-ER4916, Consequence Assessment	Revision 28 08/09/2023	Updated reference 13-1 (Quality Assurance Program Plan) per the SIMCO transition.
WP 12-ER4926, CMR Expanded Staffing Operations	Revision 28 10/03/2023	No changes described.
WP 12-HP1500, Radiological Posting and Access Control	Revision 28 08/08/2023	Updated reference 13-1 (Quality Assurance Program Plan) per the SIMCO transition.
	Revision 29 01/17/2024	Add KE 7-5 clarification to 3.2 Limitations. Add additional KE 7-5 verbiage and clarification to Section 5.26, Step 5.26.1. Change RCM to RPM. Added 12-HP1500-JHA, Radiological Posting and Access Control, to 2.0 References. Added Eye, Foot, Head, and Hand Hazards to 3.1 Precautions.
WP 12-HP3200, Radioactive Material Control	Revision 25 08/09/2023	Updated reference 13-1 (Quality Assurance Program Plan) per the SIMCO transition.
WP 12-HP3500, Airborne Radioactivity	Revision 28 08/09/2023	Updated reference 13-1 (Quality Assurance Program Plan) per the SIMCO transition.
WP 12-HP3700, Radiological Event Reporting	Revision 9 08/09/2023	Updated reference 13-1 (Quality Assurance Program Plan) per the SIMCO transition.
WP 12-RC.01 QAPP for Sampling Emissions of Radionuclides to the Ambient Air at the Waste Isolation Pilot Plant	Revision 14 12/13/2023	Changes made per the SIMCO transition. Updated reference 13-1. Updated NWP to WIPP.
WP 12-RE3004, Periodic Confirmatory Analysis, Reporting, and Compliance Activities	Revision 9 03/14/2024	In 5.6.1 [A] and [B], added action levels for Station H that were inadvertently left out of the procedure. Changed the title of WP 13-1, Nuclear Waste Partnership LLC to WP 13-1, Waste Isolation Pilot Plant Quality Assurance Program Description. In Table 2 Section 3.0, Description of Operation, deleted Nuclear Waste Partnership LLC and added by the Management and Operating (M&O) contractor. Changed Regulatory Environmental Services to Environmental. Updated the template in Attachments 1 and

Procedure / Plan	Revision Effective Date	Description of Change
		2 with the current report format. Updated the procedure to reflect the NARA requirement to have electronic records.
WP 12-RE3006, Air Monitoring Equipment Replacement	Revision 2 09/21/2023	Reformatted and changed the owner of the procedure. Editorial changes and corrections were made throughout the document. Revised the purpose and the scope of work. Clarified Attachment 2 to state that other documentation may be utilized as this is only an example for the user. Incorporated a new JHA in the precautions and limitations section.
WP 12-RL.01, Radiochemistry Quality Assurance Plan	Revision 28 08/08/2023	Language and editorial updates were made throughout the document. Updated the WIPP laboratories organizational chart, reassigning and adding lab personnel and their corresponding duties where applicable. Change the acronym Subject Matter Expert to Subject Matter Instructor.
	Revision 29 03/08/2024	Removed ethics required reading. Removed the requirement for the Lab Manager to sign corrective actions. Added instructions to generate an non-compliance report for inactive equipment and to record both issues and their resolution in the instrument logbook. Consistently named instrument and preparation logbooks. Changed wording throughout from “Laboratory” to “Laboratories”. Reworded Section 6.7 paragraph 7. Added Reference SM-19, Calibration Verification and Establishment of Quality Control Parameters for the Ludlum Model 3030. Added bullet to Section 5.1 SM-19. Renamed Section 6.4 Chemical Storage. Moved Section 7.4 Computer Software to Section 9.4. Moved Section 7.5 Analytical QC to 10.1.
WP 13-1, Waste Isolation Pilot Plant Quality Assurance Program Description	Revision 44 6/19/2024	Revised to reflect DOE/CBFO-94-1012, Rev. 14, Quality Assurance Program Document (QAPD). Issue Notice 23-1866 was generated to capture the noncompliance of implementation from the QAPD, Rev. 14, based on the Impact Assessment. Added “CAS” to 1.1.12, fifth bullet. Added industrial safety throughout. Added source documents

Procedure / Plan	Revision Effective Date	Description of Change
		to Table 1. Added quarterly metrics required to be submitted to CBFO to Section 1.1.11. Added requirement for CBFO Manager approval to Section 1.3.4. Added DOE O 243.1C requirements and NQA-1-2019, Subpart 2.17 to Section 1.5. Added detail to software grading in Section 6.1.4. Changed wording “on applicable RIDS” to “as records” in Section 1.4.3, paragraph three. Corrected acronym for “Corrected During the Assessment (CDA)” to “(CDS).”
WP 15-SE.01, Science Experiment Support Plan	Revision 10 10/03/2023	Changes made per the SIMCO transition. Updated reference to 13-1.

Table 3. Waste Emplacement Summary Report during the Reporting Period*

*Notes can be found at the end of this table, on page 32.

TRU Waste Inventory		
	Reporting Period[1] Cumulative Emplaced Volume (m^3)	Total Cumulative[3] Emplaced Volume (m^3)
RH TRU	3.30 (LWA TRU Waste Volume)[2]	368.00 (LWA TRU Waste Volume)[2]
CH TRU	3,138.63 (LWA TRU Waste Volume)[2]	76,548.73 (LWA TRU Waste Volume)[2]

Waste Components Inventory				
	Reporting Period[1] Cumulative Emplaced Mass kilogram (kg)	Total Cumulative[3] Emplaced Mass (kg)	Maximum Emplaced Limiting Value[4] (kg)	Percent of Limiting Value[4] Emplaced
Cellulose, Plastic, Rubber Materials[5]	206,735	9,875,604	20,000,000	44.89%
Fe-Metals[6]	799,531	32,590,472	20,000,000	Minimum met
Non-Fe Metals	5,384	487,761	2,000	Minimum met

Emplaced Radiological Activity Inventory (curies)				
Radionuclide	Reporting Period[1] Total Cumulative Activity	Reporting Period[1] Cumulative CH Activity[7]	Reporting Period[1] Cumulative RH Activity[7]	Total Cumulative[3] Activity
^{241}Am	1.068E+04	1.068E+04	5.578E-01	2.945E+05
^{137}Cs	1.216E+01	1.714E+00	1.045E+01	1.451E+04
^{238}Pu	1.764E+04	1.764E+04	7.641E-01	5.546E+05
^{239}Pu	2.153E+04	2.153E+04	2.410E-01	3.829E+05
^{240}Pu	5.249E+03	5.249E+03	1.655E-01	9.474E+04
^{242}Pu	9.310E-01	9.306E-01	4.032E-04	3.125E+01
^{90}Sr	1.288E+01	6.278E+00	6.597E+00	7.766E+03
^{233}U	4.861E+00	4.861E+00	3.476E-08	2.790E+01
^{234}U	3.465E+00	3.464E+00	8.694E-04	1.007E+02
^{238}U	3.093E+00	3.093E+00	3.113E-05	2.316E+01
Total	5.514E+04	5.512E+04	1.878E+01	1.349E+06

Table 3. Waste Emplacement Summary Report during the Reporting Period*
Continued

Magnesium Oxide (MgO)[8] and Cellulose, Plastic, and Rubber (CPR) Mass Emplaced Per Waste Panel					
Panel	**Room**	**MgO (kg)**	**CPR (kg)**	**Excess Factor (per Room)[8]**	**Excess Factor (Panel)**
1	7	1,127,526	276,990	2.01	1.87
	6	222,885	86,116	1.44[9]	
	5	222,885	79,213	1.56[9]	
	4	228,600	85,525	1.51[9]	
	3	1,034,415	342,069	1.67	
	2	1,028,825	229,442	2.17	
	1	617,220	138,330	2.14	
2	7	1,028,700	236,830	2.09	2.19
	6	982,980	209,305	2.20	
	5	988,820	197,979	2.28	
	4	977,265	220,912	2.17	
	3	1,028,700	211,841	2.27	
	2	965,835	165,412	2.62	
	1	691,515	186,469	1.71	
3	7	960,120	109,685	3.83	2.00
	6	954,405	229,646	1.93	
	5	1,022,985	284,651	1.70	
	4	960,120	255,172	1.79	
	3	931,545	243,860	1.89	
	2	942,975	228,067	2.02	
	1	662,940	183,088	1.76	
4	7	942,975	248,903	1.90	1.58
	6	925,830	267,494	1.71	
	5	948,690	265,302	1.71	
	4	1,049,655	290,739	1.76	
	3	1,015,365	285,755	1.70	
	2	931,545	374,327	1.22[8]	
	1	668,655	265,884	1.23	

Table 3. Waste Emplacement Summary Report during the Reporting Period*
Continued

Magnesium Oxide (MgO)[8] and Cellulose, Plastic, and Rubber (CPR) Mass Emplaced Per Waste Panel					
Panel	**Room**	**MgO (kg)**	**CPR (kg)**	**Excess Factor (per Room)[8]**	**Excess Factor (Panel)**
5	7	937,260	353,286	1.28	1.63
	6	875,477	140,033	2.85	
	5	782,346	298,832	1.24	
	4	737,167	225,449	1.64	
	3	714,286	215,961	1.61	
	2	730,612	194,069	1.84	
	1	485,714	135,766	1.75	
6	7	744,218	167,605	2.11	1.48
	6	666,667	189,775	1.74	
	5	474,294	203,497	1.24	
	4	471,586	202,434	1.25	
	3	406,533	171,330	1.25	
	2	291,716	121,710	1.22	
	1	235,107	80,223	1.46	
7	7	57,692	15,900	1.76	1.43
	6	99,320	28,832	1.83	
	5	315,646	76,186	1.80	
	4	161,905	32,351	2.10	
	3	321,088	110,790	1.30	
	2	555,112	218,582	1.26	
	1	370,098	149,116	1.27	
8	7	435,411	144,231	1.44	TBD
	6	398,929	135,001	1.33	
	5	162,724	65,371	1.20	

Table 3 Notes

1. The Reporting Period is July 1, 2023, through June 30, 2024.
2. Pursuant to the January 16, 2019, CBFO memorandum entitled *Tracking and Reporting the Defense-Related Transuranic Waste Volume Against the Waste Isolation Pilot Plant Land Withdrawal Act (LWA) Total Capacity Limit for Defense-Related Transuranic Waste,* LWA volumes will now be reported.
3. The Total Cumulative period includes from the beginning of emplacement until June 30, 2024.
4. Limiting Value—Values from Compliance Application Review Document 24, Waste Characterization (EPA 2006). These values are based on inventory assumptions.
5. CPR materials include waste, container materials, emplacement materials, and non-containerized waste.
6. Fe-metals include both materials in the waste and containers in total.
7. There is no decay correction for the listed isotope activities. Isotopic activities reported are from the time of the original assay. It is understood that some isotopes may have reached secular equilibrium after disposal.
8. The new minimum value for the excess factor of MgO to be implemented as approved by EPA (Reyes 2008b) reduces the excess factor from 1.67 to 1.20 and ensures a minimum reactivity of 94%.
9. MgO, CPR, and excess factor results for panel 1 and rooms 2–7 of panel 2 have been recalculated to replace averaged data with actual emplaced data.

Table 4. Performance Assessment, Software, and Hardware Changes during the Reporting Period

WIPP Codes/Software and Code Version	New Version	Date of Change	Description of Change
EPAUNI 1.20	EPAUNI 1.21	4/15/24	Increased number of characters allowed for waste stream names. Added warning message about assumed 2033 closure year.
PANEL 5.02	PANEL 5.03	6/24/24	Modified PANEL to invoke the 1,000 cubic meters minimum brine volume.

4.0 Additional Information Requested by the Environmental Protection Agency

Table 5. Passive Institutional Controls Activity during the Reporting Period

Date	Description of Activity
Nothing to report for the reporting period.	

Table 6. EPA Waste Characterization Inspections during the Reporting Period

Generator Site	Date/Description of Inspection	EPA Inspection No./ Tier 1 Evaluation	Docket Number/ Approval Date
Advanced Mixed Waste Treatment Project Accelerated Retrieval Project	None to report.		
Argonne National Laboratory-Illinois	None to report.		
Hanford	None to report.		
Idaho National Laboratory	On March 4, 2024, the CBFO provided a Tier 1 request to the EPA for a concurrence adding the EPA Tier 1 approvals of the Idaho National Laboratory-CCP (Princen 2024a).		
	On April 3, 2024, the CBFO provided a Tier 1 request adding the remote-handled (RH) waste stream ID-TRA632-S5100-RH to the certified program at the Idaho National Laboratory-CCP (Princen 2024b).		
Lawrence Livermore National Laboratory	On December 12, 2023, the CBFO provided a Tier 1 request to the EPA seeking review and approval to implement product container assemblies at Lawrence Livermore National Laboratory (Princen 2023c).	The EPA provided a Tier 1 approval to the CBFO to implement product container assemblies at Lawrence Livermore National Laboratory (Peake 2024a).	EPA-HQ-OAR-2001-0012-0790 / March 13, 2024

Generator Site	Date/Description of Inspection	EPA Inspection No./ Tier 1 Evaluation	Docket Number/ Approval Date
	On May 22, 2024, the CBFO provided a request for concurrence adding the EPA Tier 1 approval of the Lawrence Livermore National Laboratory - CCP (Princen 2024c).	The EPA concurred with the DOE's recertification of the LLNL-CCP waste characterization program (Peake 2024g).	Docket number not available / May 30, 2024
Los Alamos National Laboratory	On March 6, 2023, the EPA received a Tier 1 request for the Los Alamos National Laboratory – CCP to use the figure of merit methodology with the Mobile ISOCS Large Container Counter No.1.	The EPA approved the use of the figure of merit methodology on the nondestructive assay system for the characterization of contact-handled (CH) TRU waste consistent with the limitations discussed in the report (Peake 2024b).	EPA-HQ-OAR-2001-0012-0792 / April 5, 2024
Oak Ridge National Laboratory	On July 12, 2023, the CBFO provided a summary documenting compliance from the Tier 1 approval of product container assemblies at the Oak Ridge National Laboratory (ORNL) (Gadbury 2023). On May 22, 2024, the CBFO requested the EPA's concurrence on the recertification of the ORNL-CCP waste characterization activities for CH and RH transuranic waste (Princen 2024d).	EPA concurred with the DOE's recertification of the ORNL-CCP waste characterization program, which includes three RH waste streams and product container assemblies previously approved by the EPA (Peake 2024f).	Docket number not available / May 28, 2024
	On May 1-4, 2023, the EPA conducted a continued compliance inspection of the CCP waste characterization program for CH and RH transuranic (TRU) waste at the ORNL near Oak Ridge, Tennessee.	A-98-49; II-A4-252 (Peake 2023b)	EPA-HQ-OAR-2001-0012-0783 / October 26, 2023

Generator Site	Date/Description of Inspection	EPA Inspection No./ Tier 1 Evaluation	Docket Number/ Approval Date
	On March 6, 2023, the DOE requested the EPA's approval of a Tier 1 change to add waste from RH TRU waste streams OR-MRF-RH-HET and OR-MRF-RH-HOM at the ORNL.	A-98-49; II-A4-253 The EPA approved the Tier 1 change to add waste from RH TRU waste streams OR-MRF-RH-HET and OR-MRF-RH-HOM at the ORNL (Peake 2023c).	Docket number not available / October 26, 2023
	On May 17, 2023, the Carlsbad Field Office (CBFO) requested the U.S. Environmental Protection Agency's approval of a Tier 1 (T1) change to add the RH transuranic (TRU) waste stream OR-GRSC-RH-HOM to the EPA-approved RH TRU Central Characterization Program (CCP) wastes at the Oak Ridge National Laboratory (ORNL).	A-98-49; II-A1-254 The EPA reviewed this request as a desktop evaluation. After review of the documents, the EPA approved the T1 change request as presented in the enclosed report (Peake 2023d).	EPA-HQ-OAR-2001-0012-0785 / November 17, 2023
Sandia National Laboratory	None to report.		
Savannah River Site (SRS)	On August 7, 2023, the CBFO requested the EPA's approval of a Tier 1 request for the addition of new Subfamily 1A waste streams from the Savannah River Site K-Area (Princen 2023a).	The EPA approved the Tier 1 change for the addition of waste containers from Subfamily 1A of SRS-CCP Waste Stream SR-KAC-PuOx (Peake 2023a).	Docket number not available / September 11, 2023

Generator Site	Date/Description of Inspection	EPA Inspection No./ Tier 1 Evaluation	Docket Number/ Approval Date
	On September 27, 2023, the CBFO requested the EPA's approval of a Tier 1 change to add Group FY17 criticality controlled overpack to the list of approved groups and subfamilies from Savannah River Site (Princen 2023b).		

Table 7. Quality Assurance Assessments by Site/Organization during the Reporting Period

Site/Organization	Assessment Date	Purpose
Advanced Mixed Waste Treatment Project	August 14-17,2023	QAD-A-23-11, recertification audit.
Argonne National Laboratory - East–Central Characterization Program (CCP)	July 18-20, 2023	QAD-A-23-15, recertification audit.
CCP (All Sites)	April 30-May 2, 2024	QAD-A-24-11, QA program audit.
Carlsbad Field Office	None to report.	
Hanford–CCP	None to report.	
Idaho National Laboratory–CCP	March 12-14, 2024	QAD-A-24-08, recertification audit.
Lawrence Livermore National Laboratory	December 5-7, 2023	QAD-A-24-04, recertification audit.
Los Alamos National Laboratory–CCP	May 21-23, 2024	QAD-A-24-12, recertification audit.
Los Alamos National Laboratory–Carlsbad Operations	None to report.	
Salado Isolation Mining Contractors, LLC	August 29-31, 2023	QAD-A-23-03, ISMS audit.
	September 11-14, 2023	QAD-S-23-15, shadow surveillance: Evaluation of the SIMCO QA Organization's effectiveness of corrective action taken to close. Corrective Action Request 21-021.
	July 17, 2023	QAD-S-23-26, shadow assessment: Mine Ventilation.
	September 11-15, 2023	QAD-S-23-32, shadow surveillance: SIMCO External QA Program Assessment.
	September 12-15, 2023	QAD-S-23-45, shadow surveillance: Effectiveness Review of Concerns Identified during Shadow Assessment S-22-05 and Findings for Radiological Control Audit I21-11.

Site/Organization	Assessment Date	Purpose
	July 10-18, 2023	QAD-S-23-46, shadow surveillance: SIMCO QA surveillance S23-14, Mining Element Surveillance.
	July 20-23, 2023	QAD-S-23-54, shadow surveillance: SIMCO QA surveillance of the Industrial Company's Measuring and Test Equipment Program.
	November 14-16, 2023	QAD-A-24-05, Contractor Assurance System program audit.
	January 30-February 1, 2024	QAD-S-24-99, software QA program.
	February 5-6, 2024	QAD-S-24-02, shadow surveillance of SIMCO QA's oversight of Ruskin's Factory Acceptance Testing of the large 13'x13' Flow Control Dampers being supplied by Curtiss-Wright Nuclear (C-W) to The Industrial Company (TIC).
	June 24-28, 2024	QAD-A-24-07, SIMCO Quality Management System audit.
Oak Ridge National Laboratory–CCP	April 9-11, 2024	QAD-A-24-09, recertification audit.
Savannah River Site–CCP	October 17-19, 2023	QAD-A-24-03, recertification audit.
Sandia National Laboratories–CCP	None to report.	
Sandia National Laboratories–Carlsbad Office	June 11-13, 2024	QAD-A-24-09, QA program audit.
Suppliers	January 15-19, 2024	QAD-S-24-03, verified the implementation and effectiveness of SIMCO's QA oversight of fabrication of a piping elbow joint at Premier Technology, Incorporated.
CAST	January 23-25, 2024	QAD-A-24-01, evaluated the adequacy, implementation, and effectiveness of CAST compliance with DOE Contract number 89303322DEM000076.

5.0 References

*References not cited in the text of this report but used to support its preparation.

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Bollinger, M. 2023b. Letter to L. Veal, Director (Subject: Planned Change Notice for Start of Experimental Activities Associated with Sensor Testing in the WIPP Northern Underground Experimental Area). July 13, 2023. Carlsbad, NM: U.S. Department of Energy, Carlsbad Field Office.

Bollinger, M. 2023c. Letter to L. Veal, Director (Subject: CBFO Notification of Tier 2 Changes for AMWTP and CCP Activities for FY 2023, 2nd Quarter). July 17, 2023. Carlsbad, NM: U.S. Department of Energy, Carlsbad Field Office.

Bollinger, M. 2023d. Letter to L. Veal, Director (Subject: CBFO Notification of Tier 2 Changes for AMWTP and CCP Activities for FY 2023, 3rd Quarter). October 2, 2023. Carlsbad, NM: U.S. Department of Energy, Carlsbad Field Office.

Bollinger, M. 2023e. Letter to L. Veal, Director (Subject: CBFO Response to EPA Request from the CBFO Notification of Tier 2 Changes for the Fiscal Year 2023 Second Quarter and Third Quarter). November 2, 2023. Carlsbad, NM: U.S. Department of Energy, Carlsbad Field Office.

Bollinger, M. 2023f. Letter to L. Veal, Director (Subject: CBFO Notification of Tier 2 Changes for AMWTP and CCP Activities for FY 2023, 4th Quarter). December 19, 2023. Carlsbad, NM: U.S. Department of Energy, Carlsbad Field Office.

Bollinger, M. 2024a. Letter to L. Veal, Director (Subject: Planned Change Request for the use of Replacement Panels 11 and 12). March 12, 2024. Carlsbad, NM: U.S. Department of Energy, Carlsbad Field Office.

Bollinger, M. 2024b. Letter to L. Veal, Director (Subject: CBFO Notification of Tier 2 Changes for AMWTP and CCP Activities for FY 2024, 1st Quarter). March 26, 2024. Carlsbad, NM: U.S. Department of Energy, Carlsbad Field Office.

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Gadbury, D. 2023. Letter to T. Peake, Director (Subject: Summary Documenting Compliance from Tier 1 Approval of Product Container Assemblies at the Oak Ridge National Laboratory). July 12, 2023. Carlsbad, NM: U.S. Department of Energy, Carlsbad Field Office.

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