



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

FEB 15 2018

ENTERED



Ms. Mary McDaniel, Manager  
 Quality and Contractor Assurance  
 Nuclear Waste Partnership LLC  
 P.O. Box 2078  
 Carlsbad, NM 88221-2078

Subject: Surveillance S-18-09, Nuclear Waste Partnership LLC, Regulatory  
 Environmental Services Waste Confirmation Program

Dear Ms. McDaniel:

The Carlsbad Field Office conducted the subject surveillance January 23<sup>rd</sup> through the 25<sup>th</sup>, 2018, at the Cascades Building and Skeen-Whitlock Building located in Carlsbad, New Mexico.

No corrective actions were issued during this surveillance. One Observation was offered to management for consideration.

If you have any questions concerning the surveillance, please contact me at (575) 234-7483.

Sincerely,

Martin P. Navarrete, Acting Director  
 Office of Quality Assurance

Enclosure

cc: w/enclosure

J. Carswell, CBFO	*ED	J. Kieling, NMED	ED
D. Miehl, CBFO	ED	R. Maestas, NMED	ED
M. Stapleton, CBFO	ED	D. Biswell, NMED	ED
M. Fineran, CBFO	ED	H. Tellez, NMED	ED
E. Garza, CBFO	ED	M. McLean, NMED	ED
B. Covert, NWP	ED	T. Runyon, CTAC	ED
J. Britain, NWP	ED	P. Martinez, CTAC	ED
D. Huddleston, NWP	ED	M. Leroy, CTAC	ED
V. Ballew, NWP	ED	C. Castillo, CTAC	ED
S. Saiz, NWP	ED	P. Yanez, CTAC	ED
A. Boyea, NWP	ED	D. Harvill, CTAC	ED
J. Walsh, EPA	ED	G. White, CTAC	ED
J. Ellis, EPA	ED	WIPP Operating Record	ED
T. Peake, EPA	ED	CBFO QA File	
J. Haschets, RES	ED	CBFO M&RC	
R. Chavez, RES	ED	*ED denotes electronic distribution	



## CBFO SURVEILLANCE REPORT

**Surveillance Number:** S-18-09

**Date of Surveillance:** January 23 – 25, 2018

**Surveillance Title:** NWP/RES Waste Confirmation Program

**Organization(s)**

**Assessed:** Nuclear Waste Partnership LLC (NWP)/Regulatory Environmental Services (RES)

<b>Surveillance Team:</b> Martin Navarrete	Carlsbad Field Office (CBFO) Quality Assurance (QA) Representative
Katie Gentry	Surveillance Team Leader, CBFO Technical Assistance Contractor (CTAC)
Joe Lopez	Team Member, CTAC (QA)
Dustin Stegman	Team Member, CTAC (Training)
Jim Vernon	Team Member, CTAC (QA Idaho)
Rick Castillo	Technical Specialist, CTAC (Visual Examination)
Jim Schuetz	Technical Specialist, CTAC (Software)
Priscilla Yanez	Technical Specialist, CTAC (Radiography)

**Surveillance Scope:**

Surveillance S-18-09 was conducted to verify the implementation and effectiveness of the NWP/RES Waste Confirmation Program with respect to the requirements of DOE/CBFO-94-1012, *Quality Assurance Program Document*, Revision 13; the Waste Isolation Pilot Plant (WIPP) Hazardous Waste Facility Permit Attachment C7 and F1; and DOE/WIPP-07-3372, *Waste Isolation Pilot Plant Documented Safety Analysis* (Chapter 18).

**Surveillance Results:**

Activities Evaluated:

The surveillance team reviewed NWP/RES Waste Confirmation Program controlling documents for compliance to upper-tier document DOE/CBFO-94-1012, *Quality Assurance Program Document* (CBFO QAPD), Revision 13. The surveillance team reviewed and verified implementation of the following procedures in support of the surveillance:

- WP 13-1, Rev. 37, *Nuclear Waste Partnership LLC Quality Assurance Program Description* (NWP QAPD)
- WP 02-RC.11, Rev. 9, *Qualification and Certification of NDE Personnel Performing Radiography for TRU Waste Confirmation*
- WP 02-RC.12, Rev. 6, *Qualification of Personnel Performing Visual Examination for TRU Waste Confirmation*
- WP 02-RC.13, Rev. 7, *Conduct of Operations for TRU Waste Confirmation*
- WP 02-RC1101, Rev. 11, *Visual Examination for TRU Waste Confirmation*
- WP 02-RC1102, Rev. 16, *Review of Radiography Media for TRU Waste Confirmation*

- WP 02-RC1103, Rev. 11, *Radiography for TRU Waste Confirmation*
- WP 02-RC1105, Rev. 17, *Electronic Notification and Container Selection for TRU Waste Confirmation*
- WP 02-RC1107, Rev. 9, *Management of Nonconforming Waste Identified During TRU Waste Confirmation*
- WP 02-RC1108, Rev. 16, *Review of Visual Examination Records for TRU Waste Confirmation*
- WP 16-2, Rev. 16, *Software Screening and Control*

#### Quality Assurance Activities

The surveillance team reviewed the NWP QAPD, specifically section 1.1, Organization and Quality Assurance Program, to verify that it appropriately translates and provides adequate measures for ensuring the establishment and effective implementation of a QA program and that it complies with the CBFO QAPD. An NWP QA organizational structure has been established to ensure the fulfillment of the upper-tier requirements.

The surveillance team examined the RES organization chart and statement of work that complies with the Waste Confirmation Program to ensure that the proper organizational structure and responsibilities of the program participants involved in transuranic (TRU) waste confirmation activities at the Idaho National Laboratory (INL) and in Carlsbad, New Mexico, are properly established.

The surveillance team reviewed the current revisions of implementing procedures WP 02-RC1105, *Electronic Notification and Container Selection for TRU Waste Confirmation*, and WP 02-RC1107, *Management of Nonconforming Waste Identified During TRU Waste Confirmation*, and determined that both procedures are satisfactorily implemented, resulting in effective processes.

The surveillance team interviewed NWP/RES Waste Confirmation Permittee Confirmation Representative (PCR) personnel. The PCR confirmed, through demonstration of the in-process confirmation shipment package IN180011, that at least 7 percent of each waste stream shipment is randomly selected for waste confirmation. The surveillance team also confirmed the random selection of at least 7 percent of each waste stream through review of confirmation shipment packages IN17033, IN170081, IN180008, IN180009, and LA170001. The random selection is automatically generated through the Waste Data System (WDS). The PCR confirmed that all personnel performing waste confirmation activities are adequately trained and are documented on the Waste Confirmation Training Matrix List of Qualified Individuals.

The surveillance team verified that the PCR submits a daily list of containers that require waste confirmation to the radiographers and visual examination (VE) personnel. The containers are specified in the WIPP Confirmation Container Data Reports that are ultimately located in each confirmation package.

The surveillance team verified through interviews that the PCR, operators, independent observer (IO), and independent technical reviewer (ITR) functions are not performed by the same individual during waste confirmation of any container.

Through review of the Independent Observations Log and interviews with personnel, the surveillance team confirmed independent observations are performed on two containers per day, or two containers per shipment.

The surveillance team verified that there have been no container rejections since the previous assessment A-15-05. It was also confirmed that required emails and Department of Energy (DOE) approval/rejection documentation are included in the confirmation data packages for containers prior to shipping activities.

The surveillance team confirmed through interviews with waste confirmation personnel that no nonconformance reports (NCRs) have been issued during waste confirmation activities since 2007. Waste confirmation personnel affirmed that any and all NCRs issued on containers being confirmed are dispositioned prior to shipment approval. If additional NCR disposition information is required, a "stop work" is imposed until all information is received by the confirmation team. This was confirmed during the surveillance through review and demonstration of the in-process confirmation shipment package WC180004. During the review, a stop work was imposed until a resolution of the associated open NCR was reached; and accordingly, the real-time radiography (RTR) waste confirmation team continued the confirmation process once the NCR was closed.

No concerns were identified. The procedure reviews and objective evidence evaluated during the surveillance demonstrate the applicable requirements for container selection and management of nonconforming waste are satisfactorily implemented, resulting in effective processes.

#### Personnel Qualification and Training Summary

The surveillance team reviewed documentation to verify that RES Permittee Waste Confirmation personnel meet the training requirements of the Hazardous Waste Facility Permit Attachments C7, F1, F2, and the CBFO QAPD. The current revisions of implementing procedures WP 02-RC.11, *Qualification and Certification of NDE Personnel Performing Radiography for TRU Waste Confirmation*, and WP 02-RC.12, *Qualification of Personnel Performing Visual Examination for TRU Waste Confirmation*, were also reviewed and found to be adequate and satisfactorily implemented.

The surveillance team verified that waste confirmation personnel performing VE, RTR, and PCR activities are appropriately trained and qualified. Interviews were conducted with responsible personnel. Training records were verified and reviewed at the WIPP Training Department records room at the site.

Training records for waste confirmation nondestructive examination (NDE) radiography operators (Level 1 and Level 2) were examined for TRU waste confirmation personnel working at INL and in Carlsbad, New Mexico. Records reviews included transcripts, qualification cards, waste stream training/required reading, educational documentation, eye exams, comprehensive exams, and test drum documentation. NDE certification documentation for the operators meet the guidelines established in American Society for Nondestructive Testing (ASNT) Recommended Practice SNT-TC-1A (1980). A summary sheet and formal letter prepared by the Confirmation Program Manager is located in each operator's file

attesting that all qualification/certification requirements were met. NDE radiography operators (Level 1 and Level 2) recertify every two years and Wheelis Nondestructive Testing is the outside agency that provides the NDE Level 3 services.

Training records for waste confirmation VE personnel (Level 1, Level 2, and VE experts) were examined. Record reviews included transcripts, qualification cards, capability demonstration documentation, waste stream training, educational documentation, and comprehensive exams. Appointment letters for two VE experts and documentation for subject matter expert/on-the-job training were also reviewed. VE personnel requalify every two years.

The surveillance team verified required reading requirements in WP 02-RC.13, *Conduct of Operations for TRU Waste Confirmation*. RTR and VE personnel are currently trained on newly developed and revised waste stream profile forms (including when changes are made to 1) waste generating processes, 2) packaging, and 3) expected waste material parameters). This training is tracked by a PCR through the RES Waste Confirmation required reading database.

Training requirements were also verified for other waste confirmation-related positions including the designated PCRs and the designated DOE Management Representatives responsible for reviewing the waste confirmation packages. With the exception of the DOE Management Representative position, all other waste confirmation-related position training requirements are tracked on the *RES List of Qualified Individuals and Waste Confirmation Training Due Matrix* (dated 1/6/18).

The surveillance team identified a concern regarding CBFO management procedure (MP) 5.1, Rev. 5, *Approval of Contractor-Generator Confirmation Data Packages*. It was observed during the surveillance that this procedure should be revised to include the requirements of DOE/CBFO-17-3580, Rev. 0, *CBFO Federal Employee Training Program* (e.g., required reading). If this procedure is not revised, training requirements could be inadvertently missed or not documented properly.

The procedures reviewed and objective evidence assembled and evaluated during the surveillance indicate that the applicable requirements for waste confirmation personnel qualification and training are adequately established for compliance with upper-tier requirements, and are satisfactorily implemented and effective.

#### WIPP Waste Information System/Waste Data System (WWIS/WDS)

The surveillance team observed personnel accessing the WWIS/WDS and Integrated Data Center (IDC) software applications to review and compare container and batch data report information in the course of performing waste confirmation.

The surveillance team reviewed the current revisions of the implementing procedures WP 02-RC.13, *Conduct of Operations for TRU Waste Confirmation*; WP 02-RC1105, *Electronic Notification and Container Selection for TRU Waste Confirmation*; and WP 02-RC1107, *Management of Nonconforming Waste Identified During TRU Waste Confirmation*.

The surveillance team reviewed procedures and conducted interviews to confirm Level 1 and Level 2 waste confirmations are being performed in accordance with the procedure. Also, the team verified that notifications are received prior to submission for CBFO National TRU Program (NTP) review, or during NTP review of a shipment confirmation data package, and that confirmation activities are reviewed and resumed when ready. The surveillance team verified that waste shipments are documented in accordance with the procedure once the NTP approval is received, including notification of confirmed or rejected containers. Also, the team reviewed the WDS software requirements specification documentation from a software quality assurance plan standpoint and confirmed that the document followed software quality assurance requirements as stated in the CBFO QAPD.

The surveillance team identified no concerns related to the process for random selection of shipments and containers for performance of waste confirmation activities. The procedures reviewed and objective evidence evaluated during the surveillance demonstrate that the applicable requirements for container selection and waste confirmation activities are adequately established for compliance with the upper-tier requirements, and are satisfactorily implemented and effective.

#### Waste Confirmation Activities at INL

The surveillance team observed waste confirmation activities by NWP/RES personnel at the INL. The surveillance team examined all records generated by TRU waste confirmation activities at the INL and determined that all records are electronic records and are maintained in accordance with the applicable procedure.

The surveillance team reviewed the current revisions of the implementing procedures WP 02-RC.13, *Conduct of Operations for TRU Waste Confirmation*; WP 02-RC1105, *Electronic Notification and Container Selection for TRU Waste Confirmation*; and WP 02-RC1102, *Review of Radiography Media for TRU Waste Confirmation*.

The surveillance team verified that during the plan of the day (POD) meeting the PCR position is assigned at the discretion of the Confirmation Manager. During the POD, there were discussions regarding pre-job briefings, or job hazards, as needed. RES personnel maintain a database of all required reading. Prior to conducting waste confirmation activities at INL, RES personnel verify they have read the latest version of the Waste Stream Profile Form (WSPF) for each waste stream being confirmed. RES personnel also verify that the applicable procedures that are used for waste confirmation activities at INL are current.

Waste confirmation personnel at the INL use several databases for confirmation activities including the WDS, the IDC, and the Waste Tracking System. The surveillance team verified that the RES waste confirmation personnel were granted access to all three databases.

The surveillance team observed the IO function of waste confirmation in accordance with WP 02-RC1102, *Review of Radiography Media for TRU Waste Confirmation*. The IO reviewed two containers, LA00000086773 and LA00000068863, from shipment WC180003. The IO reviewed the RTR videos of the two containers and the associated WSPF LA-MIN03-NC.001. The surveillance team observed the IO contact the PCR to discuss aspects of the WSPF and the RTR videos. After discussing the WSPF with the PCR, the IO verified that the RTR videos matched the

WSPF. The surveillance team was given a copy of the signed EA02RC1102-1-0, *TRU Waste Confirmation (RTR/VE) Approval Form*.

Waste confirmation activities at the INL are either Level 1 or Level 2 waste confirmations. Level 1 confirmation is the review of the applicable RTR or VE confirmation data. The surveillance team verified that all waste confirmation personnel at the INL are trained to perform Level 1 confirmation. Level 2 confirmation is to perform actual RTR or VE on a waste container. The surveillance team noted that Level 2 confirmation has not occurred at the INL and confirmation personnel are only qualified to perform Level 2 confirmation for RTR. Finally, the surveillance team reviewed the following waste confirmation records packages for the following TRU waste shipments:

- IN080007
- IN080008
- IN080009

The TRU waste shipment confirmation packages were found to be acceptable.

The procedures reviewed and objective evidence assembled and evaluated by the surveillance team indicate that the applicable requirements for waste confirmation activities in Idaho are adequately established for compliance with upper-tier requirements, and are satisfactorily implemented and effective.

#### Real-Time Radiography (RTR)

The surveillance team reviewed documentation to verify that NWP/RES waste confirmation personnel meet the requirements in the Hazardous Waste Facility Permit Attachment C7 as related to radiography. The current revisions of implementing procedures WP 02-RC1102, *Review of Radiography Media for TRU Waste Confirmation*, and WP 02-RC1103, *Radiography for TRU Waste Confirmation*, were reviewed. The results of the review indicated that the referenced procedures adequately address upper-tier requirements.

The surveillance team interviewed NWP/RES waste confirmation personnel including the PCR, RTR Operator, IO, and RTR ITR. The team reviewed seven RTR waste confirmation shipment packages from the Los Alamos National Laboratory (LANL)/Waste Control Specialists (WCS), the INL, and the Savannah River Site (SRS) for TRU waste approved for shipment in 2017 and 2018. The surveillance team verified NWP/RES RTR waste confirmation activities were performed in accordance with WP 02-RC1102, *Review of Radiography Media for TRU Waste Confirmation*, and determined that NWP/RES procedure WP 02-RC1103, *Radiography for TRU Waste Confirmation*, has still not been used since the previous assessment.

During the surveillance, the team observed the RTR for confirmation shipment package IN180011 and for the confirmation shipment package WC180004 from site LANL/WCS. The team also reviewed RTR confirmation shipment packages OR170006 and OR170016 from the Oak Ridge National Laboratory, SR170003 and SR170008 from SRS, and WC170010 and WC170017 from LANL/WCS. The confirmation shipment packages included the required documentation and were

completed per procedural requirements. The RTR operator performs the confirmation reviewing generator site RTR container data sheets. All confirmation shipment packages contained completed documentation, including electronic attachments EA01RC1102-1-0, EA01RC1102-2-0, and EA01RC1102-3-0, as required. The RTR operator reviews NCRs for the status of the NCR disposition, as required. The PCR performs a final review of the shipment package after the IO and ITR reviews and approvals, and emails the package with all attachments to the DOE Management Representative to perform a final review. After the DOE Management Representative's review and approval, an email is sent to the PCR, who confirms the shipment and notifies the generator/storage site that the confirmation process is complete, and the waste can be shipped to the WIPP site.

The procedures reviewed and objective evidence assembled and evaluated during the surveillance demonstrate the applicable requirements for waste confirmation through review of RTR confirmation packages are satisfactorily implemented, resulting in an effective process.

#### Visual Examination

The surveillance team reviewed documentation to verify that NWP/RES waste confirmation personnel meet the requirements in the Hazardous Waste Facility Permit Attachment C7 as related to VE. The current revisions of implementing procedures WP 02-RC1101, *Visual Examination for TRU Waste Confirmation*, and WP 02-RC1108, *Review of Visual Examination Records for TRU Waste Confirmation*, were reviewed. The results of the review indicated that the referenced procedures adequately address upper-tier requirements.

The surveillance team interviewed NWP/RES waste confirmation personnel including the PCR, VE operator (VEO), and VE ITR. The team reviewed six VE waste confirmation shipment packages from the LANL and INL for TRU waste approved for shipment in 2017 and 2018. The surveillance team verified NWP/RES VE waste confirmation activities were performed in accordance with WP 02-RC1108, *Review of Visual Examination Records for TRU Waste Confirmation*. Further, it was determined that NWP/RES procedure WP 02-RC1101, *Visual Examination for TRU Waste Confirmation*, has still not been used since the previous assessment.

During the surveillance, the team observed the VE of confirmation shipment package IN180011. Confirmation shipment packages LA170001, IN170033, IN170081, IN180008, and IN180009 were also reviewed. All confirmation shipment packages included the required documentation and were completed per procedural requirements. The VEO performs the confirmation reviewing generator site VE container data sheets. All confirmation shipment packages contained completed documentation, including electronic attachments EA01RC1102-1-0, EA01RC1102-2-0, and EA01RC1102-3-0, as required. The VEO reviews NCRs for the status of the NCR disposition, as required. The PCR performs a final review of the shipment package after the VEO and ITR reviews and approvals, and emails the package with all attachments to the DOE Management Representative to perform a final review. After the DOE Management Representative's review and approval is completed per the requirements of CBFO MP 5.1, *Approval of Contractor-Generator Confirmation Data Packages*, an email is sent to the PCR, who confirms the shipment and notifies



the generator/storage site that the confirmation process is complete, and the waste can be shipped to the WIPP site.

The procedures reviewed and objective evidence assembled and evaluated during the surveillance demonstrate the applicable requirements for waste confirmation through review of VE confirmation packages are satisfactorily implemented, resulting in an effective process.

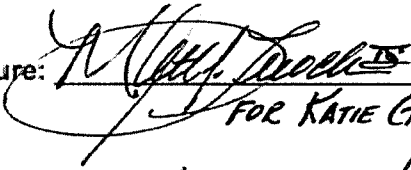
**Corrective Actions:**

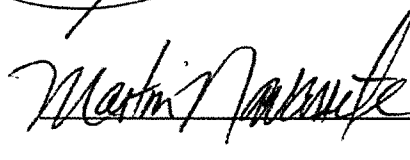
There were no corrective actions issued during this surveillance. One Observation was offered to management for consideration.

Observation: CBFO MP 5.1, Rev. 5, *Approval of Contractor-Generator Confirmation Data Packages*, should be revised to include the requirements of DOE/CBFO-17-3580, Rev. 0, *CBFO Federal Employee Training Program* (e.g., required reading). If the procedure is not revised, training requirements could be inadvertently missed or not documented properly.

**Conclusion:**

The surveillance team determined that the NWP/RES Waste Confirmation Program activities performed at the INL and in Carlsbad, New Mexico, are satisfactory in the implementation of upper-tier requirements, and effective in achieving the desired results.

Surveillance Team Leader Signature:  Date: 2/15/18  
FOR KATIE GENTRY

CBFO OQA Director (or Designee) Approval Signature:  Date: 2/15/18