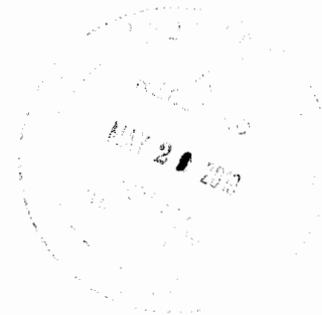




ENTERED

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



MAY 21 2019

Mr. Peter Rodrik, Acting Manager
National Nuclear Security Administration
Livermore Field Office
P.O. Box 808, L-293
7000 East Avenue
Livermore, CA 94551-0808

Subject: Closure of Lawrence Livermore National Laboratory Generator Site Technical Review by the Co-Permittees at the Waste Isolation Pilot Plant

Reference: Letter from Mr. Peter Rodrik, Manager, DOE LFO to Mr. Todd Shrader, Manager, DOE CBFO and Mr. Bruce Covert, Project Manager, NWP, dated April 30, 2019; Subject: Department of Energy Carlsbad Field Office and Nuclear Waste Partnership LLC Generator Site Technical Review GSTR-LL 1-18-01 Final

Dear Mr. Rodrik:

In February through March of 2018, the Department of Energy (DOE) Carlsbad Field Office (CBFO) and Nuclear Waste Partnership LLC (NWP) as co-permittees of the Waste Isolation Pilot Plant (WIPP) conducted the on-site portion of the Generator Site Technical Review (GSTR) at the Lawrence Livermore National Laboratory (LLNL). The GSTR was mandated by the Waste Isolation Pilot Plant (WIPP) Documented Safety Analysis in response to the radiation release incident at WIPP in February 2014.

This letter shall serve as notice that the subject GSTR is complete and all identified issues have been satisfactorily addressed and resolved. This is an important step in the resumption of shipping of newly generated transuranic (TRU) waste from the LLNL to the WIPP. The co-permittees received generous cooperation from the DOE Livermore Field Office (LFO) staff and contractors of both organizations. Please pass along our thanks to them for that cooperation.

The GSTR is an ongoing process. Follow-on reviews will occur as directed by our office. If you have any questions, please direct them to Courtland Fesmire at 575-706-0044 or courtland.fesmire@cbfo.doe.gov.

Sincerely,

Todd Shrader, Manager
Carlsbad Field Office

Bruce C. Covert, Project Manager
Nuclear Waste Partnership LLC

Enclosure



Mr. Pete Rodrik

-2-

MAY 21 2019

cc: w/enclosure

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M. Valentine, NWP	ED
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J. Carter, NWP	ED
R. Garcia, Excel	ED
H. Greenwood, CCP-TechSpecs	ED
Site Docs	ED
CBFO M&RC	

*ED denotes electronic distribution

GSTR-LL-1-18-01
ISSUES TRACKING SYSTEM
February 26, 2018 through March 2, 2018; and 6/11/18 Conclusion;
May 14, 2019 Closure of Issues

W.R.S.
5/15/19

Issue [I-1] LL-1-18-01 (R.B. - Con Ops.)

COU7-000101 Rev. AF, Operator Area Logbooks section 7.5 required entries contain a list of information that should be found in the logbook, if applicable to the operating area. It appears that some information is not being entered into some log books; for example, the room 1010 log book contains pages of entries (one for each day), that the Daily Room checks were completed. There is no mention of activities that occurred in the room; glove changes; bag-outs of materials/wastes; abnormal room or equipment condition, etc. It is recommended that NMPT refine the expectations for the log book entries that should be found in each type of log book (room, area, process, etc.) maintained in the facilities.

Resolution:

The following response, as received from NNSA LFO, via 4/30/19 letter and attachment, reads as follows:

Assigned to Kevin Mahoney

Proposed action: Review logbook procedure to determine if changes are needed. Brief room responsible personnel on logbook requirements.

Due Date: 7/15/2019; This response has been evaluated and the issue closed.

Issue [I-2] LL-1-18-01 (M.D. & D.H. – Waste Management, Treatment/Procurement)

This issue documents two concerns with the control of procured materials or components used in waste packaging (e.g., absorbents intended for use in treating waste). First, on the front end of the process, the procurement procedure does not impose any conditions that would require a higher quality for items important to waste performance, such as absorbents. Accordingly, such items can be obtained without controls such as technical specifications, or review by technically qualified personnel. A similar process to procure absorbents at LANL was a significant factor in the WIPP release event. Second, on the back end of the process, waste treatment procedures specify that "approved" absorbents must be used, but provide no further specificity. Accordingly, LLNL needs to evaluate and identify the absorbents that can be used with TRU waste, and add the appropriate procurement and procedural controls.

Resolution:

The following response, as received from NNSA LFO, via 4/30/19 letter and attachment, reads as follows:

Assigned to Rod Hollister

Proposed action: LLNL does not believe it to be practical to control the purchase of absorbents at the Procurement level for the entire site. Specific absorbents can be controlled at the TRU waste level.

WCP-68 will be modified to provide a specific list of approved absorbents. Any absorbents that are used must be documented with specific information.

Due Date: 9/30/2019; This response has been evaluated and the issue closed.

Issue [I-3] LL-1-18-01 (M.D. – Waste Management)

It is recommended that the informal tracking sheet used by the Visual Examiner during packaging be incorporated into the procedure and included in the drum package.

It is also recommended that the use of the EPA Chemical Compatibility method be documented for each waste stream.

Resolution:

The following response, as received from NNSA LFO, via 4/30/19 letter and attachment, reads as follows:

Assigned to Rod Hollister

Proposed action: The informal tracking sheet will be turned into a controlled form and included in the procedure. The tracking sheet will be part of the record associated with the container.

Due Date: 9/30/2019; This response has been evaluated and the issue closed.

Issue [I-4] LL-1-18-01 (M.D. – Waste Management/Document Control)

There appears to be some duplication between ADM 101, Section 7 and ADM 102, Section 8.4. Both appear to direct the review of RHWM documents.

Resolution:

The following response, as received from NNSA LFO, via 4/30/19 letter and attachment, reads as follows:

Assigned to Angelina Flores

Proposed action: There appears to be some duplication between ADM 101, Section 7 and ADM 102, Section 8.4. Both appear to direct the review of RHWM documents. Evaluate both documents to determine if there is duplication and whether a revision to the procedures is warranted.

Due Date: 6/14/2019; This response has been evaluated and the issue closed.

Issue [I-5] LL-1-18-01 (M.D. – Waste Management)

USQ screening will not necessarily evaluate interactions of materials that could be combined in a drum. This is not specific to LLNL; it is how the USQ questions are posed in the USQ process. LLNL should consider the need to incorporate waste issues into the screening process.

Resolution:

The following response, as received from NNSA LFO, via 4/30/19 letter and attachment, reads as follows:

Assigned to Danny Laycak

Proposed action: The USQ process is a very structured process developed by DOE. LLNL follows the DOE process in preparing USQs. Brief the USQ preparers to be mindful of outside influences and to contact other subject matter experts where necessary.

Due Date: 6/28/2019; This response has been evaluated and the issue closed.

Issue [I-6] LL-1-18-01 (M.D. – Waste Management/Document Control)

ADM 102 refers to a document that no longer exists, ADM 103.

Resolution:

The following response, as received from NNSA LFO, via 4/30/19 letter and attachment, reads as follows:

Assigned to Rod Hollister

Proposed action: This had been identified by RHWM prior to the GSTR. When documents are canceled it often takes a while to remove all the references. ADM 102 was under review at the time of the review and was issued on 9/14/18. - ADM 102 was updated to remove the reference to ADM 103.

Due Date: 3/8/2019; This response has been evaluated and the issue closed.

Issue [I-7] LL-1-18-01 (P.R. - Assessments)

While several examples of internal assessments/oversight activities were reviewed, the following recommendation is offered for your consideration: With regard to internal oversight and other assessment activities of waste generation/processing/treatment and /or packaging activities for TRU waste – specific reviews at an amplified frequency is recommended to be established to identify areas where potential conditions similar to the LANL issue of 2014 could occur. It's important to recognize that this recommendation (for specific TRU waste oversight), would be more applicable during TRU waste campaign periods.

Resolution:

The following response, as received from NNSA LFO, via 4/30/19 letter and attachment, reads as follows:

Assigned to Jason Schnackenberg

Proposed action: Update all the TRU IGDs to include more information about the original process that generated the waste along with specific information about authorized components including brands and product numbers for any reagents being

used (e.g., absorbents solidification media, chemicals [CAS numbers], cutting fluids, etc.)

Part of the update/review will include a review of the chemical compatibility for the IGD. IGDs include: 00345, 00578, 00579, 00580, 01517, 01746, 01877, 01880, 01895, 02705, 02706, 02763, 02765, 02810, 02814, 03364, and 03437
Due Date: 12/16/2019

Assigned to Clint Conrad

Proposed action: As part of the internal review RHWM will establish a certified visual examination (VE) program at LLNL.

Work with WIPP/CCP to bring on a VE expert/SME to oversee all the TRU waste packaging operations at LLNL. The VE expert will be included in the IGD reviews for TRU waste and will be responsible for ensuring that only waste that meets the visual examination requirements is packaged and transferred to RHWM.

Due Date: 6/28/2019

Assigned to Angelina Flores

Proposed action: Add Management, Observations, and Inspections (MOIs) for TRU Waste Activities in the FY2020 RHWM Assessment Schedule. One MOI should target waste generation activities and one should target the review of documentation.

Due Date: 9/16/2019;

These responses have been evaluated and the issue closed.

Issue [I-8] LL-1-18-01 (D.H. – Training)

Other than a single example, the team found little evidence of any WIPP-specific training provided to LLNL personnel.

Interviews with waste handling personnel indicated some weaknesses in understanding the bases of waste management requirements (e.g., definitions and differences between D001, D002, D003 waste codes, the differences between types of codes, such as F codes and D codes, the prohibited items listing for WIPP, and why these items are prohibited).

Understanding the WIPP regulations and requirements is both necessary and beneficial for LLNL personnel. The GSTR team believes LLNL should develop WIPP-specific training, addressing the waste acceptance criteria, the waste analysis plan, the certification and audit process, the interfaces with CCP, the lessons learned throughout the complex, etc.

Resolution:

The following response, as received from NNSA LFO, via 4/30/19 letter and attachment, reads as follows:

Assigned to Dan Spooner

Proposed action: Develop a specific training class for TRU waste that would include WIPP specifics. The training would target RHWM personnel involved in packaging, handling, and managing TRU waste.

Due Date: 1/31/2020; This response has been evaluated and the issue closed.

Issue [I-9] LL-1-18-01 (D.H. – Training)

The LLNL TRU waste expertise is primarily provided by a single individual, who has gained the expertise by involvement with WIPP operations, the Central Characterization Project, and the TRU Corporate Board over many years. The GSTR team believes a systematic evaluation should be performed, and some type of formal qualification or training program developed to provide backup to this single individual and to ensure recognition and agreement of the knowledge requirements to be transitioned to any future TRU SMEs, as part of a good succession plan.

Resolution:

The following response, as received from NNSA LFO, via 4/30/19 letter and attachment, reads as follows:

Assigned to Dan Spooner

Proposed action: Develop a formal qualification card for the TRU Project Manager and for the TRU SME.

Due Date: 1/31/2020; This response has been evaluated and the issue closed.

Issue [I-10] LL-1-18-01 (D.H. - RCRA Permit)

Combination of EFA, WTG, TRU SME, TRU Programmatic Personnel (B235 and B332)

The GSTR team understands that the LLNL operates under a more complex regulatory structure when compared to most sites throughout the DOE complex, as the State of California imposes a significant number of California specific requirements upon the lab, as defined in the laboratories' RCRA Part B Permit. In light of the WIPP release event, as well as the recent exothermic events in Idaho, the GSTR team believes LLNL should re-evaluate whether the absorption of liquids is adequately neutralizing liquids and that this operation is covered within the bounds of the current RCRA permit.

Resolution:

The following response, as received from NNSA LFO, via 4/30/19 letter and attachment, reads as follows:

Assigned to Reggie Gaylord

Proposed action: Based on investigations conducted by EFA and RHWM there is a potential for some generators to generate TRU liquids that cannot be treated using the California bench top treatment regulations.

RHWM will develop a project schedule that lays out all the steps necessary to begin treating TRU waste in RHWM. The associated duration for each step will be included in the project schedule along with any dependencies. Based on the project schedule additional action can be entered in ITS.

Due Date: 9/30/2019; This response has been evaluated and the issue closed.

Issue [I-11] LL-1-18-01 (R.B. – Con. Ops.)

Noteworthy Practice. The control sheet for Operator Aids in the NMTP Operator Aid program provides a single document where the history of the current version of an operator aid can be found. The control sheet provides general information for the operator aid, documents the approval to post the operator aid, and documents the required periodic reviews on one sheet.

Resolution: N/A – This issue commends the facility and personnel, and highlights a practice worthy of mentioning. The issue is closed.

Issue [I-12] LL-1-18-01 (P.R. – Performance Assurance/Lessons Learned)

Noteworthy Practice. This issue is documented to commend the laboratory's comprehensive evaluations and responses to requests for Evaluation of Nitrate-Bearing Transuranic Waste Streams. (Re.: WCI Nuclear and Hazardous Operation Manager's presentation: *Planning for an Accident, January 30, 2015*, LLNL-PRES-747118, LLNL March 15, 2015 correspondence, including the *Independent Review Team Report Regarding Uncemented Nitrate Waste At Los Alamos National Laboratory, Dec 23, 2014* (this is a documented LLNL review of the Longenecker report); and LLNL WCI Response to OE-2:2015-1, *Evaluation of Nitrate-Bearing Transuranic Waste at LLNL*, August 28, 2015).

Resolution: N/A – This issue applauds the facility and highlights personnel/departmental practices worth mentioning and is duly closed.

Issue [I-13] LL-1-18-01 (D. H. – Training)

Noteworthy Practice – The three mandatory training classes required by all site personnel involved with any waste management activities are comprehensive, and clearly identify roles and responsibilities for the management of waste at the LLNL site. Of all the sites evaluated by the GSTR team thus far, this is probably the best set of core training documents presented.

Resolution: NA – This issue commends the facility and highlights noteworthy practices implemented by the LLNL, relative to waste management training.

Issue [I-14] LL-1-18-01 (C.F. – Federal Oversight)

The Federal Oversight review team is recommending that LSO consider additional staffing of FRs and oversight personnel coupled with augmented training for current and new FR staff. This recommendation is based in light of additional staffing burdens that will be placed on its staff when the facility gears up to conduct its characterization and shipping campaign of TRU waste. Succession planning as well as backup support for current FRs is encouraged. An additional recommendation is for LFO to consider a short detail for program staff at CBFO to familiarize, or re-familiarize themselves with the characterization, certification, and shipping of TRU waste under the National TRU Waste Program.

Resolution:

The following response, as received from NNSA LFO, via 4/30/19 letter and attachment, reads as follows:

Assigned to James A. Davis, III/Alan Chen

Proposed action: LFO Management has evaluated this issue and made the determination to provide additional resources to the Waste Storage Facility FR for oversight of A625. Regarding training, it was discussed during the review that the Carlsbad Field Office will develop a RCRA class for FRs. When this class becomes available, this training will be considered as part of the LFO FR's continuing training plan. LFO supports and will consider a short term detail for its waste management program managers to familiarize themselves with the National TRU Waste Program.

This response has been evaluated and the issue closed.

Note: Proposed Actions cited above, entered in the LLNL Issues Tracking System (ITS).