ESHID-603901

Los Alamos NATIONAL LABORATORY
Associate Laboratory Directorate for Environment, Safety, Health, & Quality
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Symbol: ALDESHQ-25-028
Date: July 9, 2025

Mr. James C. Kenney, Secretary
New Mexico Environment Department
Harold Runnels Building
1190 St. Francis Dr. Suite N4050
Santa Fe, NM 87505

Subject: Response to June 9, 2025 Letter, Temporary Authorization Los Alamos National Laboratory Hazardous Waste Facility Permit

Dear Mr. Kenney:

The United States Department of Energy (DOE) National Nuclear Security Administration, Los Alamos Field Office (NA-LA), in association with Triad National Security, LLC (Triad), submit to the New Mexico Environment Department (NMED) the attached response to a letter dated June 9, 2025. This response includes invocation of the dispute resolution process as outlined in the Los Alamos National Laboratory Hazardous Waste Facility Permit, Section 1.14, *Dispute Resolution.* As a response to the letter requiring prerequisites to any NMED action on the temporary authorization request, NA-LA and Triad are exercising the option to request an opportunity to meet and confer to resolve disagreement associated with the June 9, 2025 letter.

NA-LA and Triad shall ensure that persons on the electronic mail notification list are provided with notice associated with this invocation within seven days of this notice.

If you have any questions or comments concerning this response document and invocation of dispute resolution, please contact Robert A. Gallegos (NA-LA) at (505) 901-3824 or by email at robert.gallegos@nnsa.doe.gov or Luciana Vigil-Holterman (Triad) at (505) 665-3435 or by email at luciana@lanl.gov.

LA-UR-25-26551

Sincerely,

STEVEN A. COLEMAN (Affiliate)
Digitally signed by STEVEN A. COLEMAN (Affiliate)
Date: 2025.07.08 18:24:09 -06'00'

Steven A. Coleman
Associate Laboratory Director
Environmental, Safety, Health, and Quality
Triad National Security, LLC

Sincerely,

ROBERT GALLEGOS
Digitally signed by ROBERT GALLEGOS
Date: 2025.07.09 07:31:17 -06'00'

Robert A. Gallegos
Program Manager
Environmental Permitting and Compliance
U.S. Department of Energy
National Nuclear Security Administration
Los Alamos Field Office

SAC/RAG

Enclosure: *Invocation of Dispute Resolution for Request for Waste Treatment, Storage, and Repacking Temporary Authorization*

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ENCLOSURE

Invocation of Dispute Resolution for Request for Waste Treatment, Storage, and Repacking Temporary Authorization

Date: July 9, 2025

ALDESHQ-25-028

U.S. Department of Energy,
National Nuclear Security Administration Los Alamos Field Office, and
Triad National Security, LLC

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I. Invocation of Dispute Resolution

Pursuant to Section 1.14 of the Los Alamos National Laboratory Hazardous Waste Facility Permit (Permit), Permittees Department of Energy (DOE) and Triad National Security, LLC (Triad) invoke dispute resolution regarding the New Mexico Environment Department's (NMED) June 9, 2025, decision[1] on Permittees' March 9, 2020, Temporary Authorization request.[2] NMED exceeded its authority in functionally denying Temporary Authorization for Flanged Tritium Waste Container pressure mitigation activities over which NMED has no jurisdiction and which are necessary for the protection of worker safety, human health, and the environment.

II. Matters in Dispute

On March 9, 2020, Permittees DOE and Triad requested NMED's approval for Temporary Authorization to store and repackage the four Flanged Tritium Waste Containers (FTWCs) at the Technical Area (TA) 16 Weapons Engineering Tritium Facility (WETF) following processing (pressure mitigation / venting).[3] Permittees sought Temporary Authorization pursuant to 40 C.F.R. § 270.42(e)(2)(i)(A).[4] The Temporary Authorization request was appropriate to "address a one-time or short-term activity at a facility for which the full permit modification process is inappropriate."[5]

Permittees satisfied the Temporary Authorization requirements specified in 40 C.F.R. § 270.42(e) and demonstrated the activities' compliance with the 40 C.F.R. Part 264 standards, which define the acceptable management of hazardous waste.[6] In fact, NMED found that "Permittees request is ***consistent with the applicable requirements*** of 40 C.F.R. § 270.42(e)(3)."[7] And NMED represented on its FTWCs website that it "***is issuing an approval allowing*** Los Alamos National Laboratory (LANL) to treat four (4) pressurized gas containers, also known as flanged tritium waste container[s] (FTWCs)."[8]

Notwithstanding the Temporary Authorization's consistency with applicable requirements and NMED's representation that it was issuing an approval allowing for the activities contemplated in the Temporary Authorization, NMED functionally denied the Temporary Authorization.[9] NMED determined that it "***will not act*** on the temporary authorization request until" certain "***criteria*** are successfully met," after which the Permittees "may submit a revised request for temporary authorization to NMED for

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[1] Kenney, Cabinet Secretary, NMED, Letter to Wyka, National Nuclear Security Administration, *et al*. (June 9, 2025) (**Exhibit C**).
[2] Payne, Division Leader Environmental Protection & Compliance, Triad, *et al*. Letter to Pierard, Chief Hazardous Waste Bureau, NMED (March 9, 2020) enclosing Temporary Authorization Request-Waste Treatment, Storage, and Repackaging of Flanged Tritium Waste Containers (LA-UR-20-22103) (March 9, 2020) (**Exhibit A**).
[3] *See* **Exhibit A.**
[4] 20.4.1.900 NMAC incorporates 40 C.F.R. Part 270.
[5] 53 Fed. Reg. 37912, 37919 (Sept. 28, 1988).
[6] *See* **Exhibit A**.
[7] **Exhibit C** (emphasis added).
[8] *See* https://www.env.nm.gov/hazardous-waste/lanl/temporary-authorization-request-to-treat-four-flanged-tritium-waste-containers/ (last accessed July 6, 2025) (a screenshot of the website is attached as **Exhibit D**) (emphasis added).
[9] *See* **Exhibit C**.

consideration."[10] ***Inaction is not a permissible response*** to a request for Temporary Authorization.[11] NMED, identified ***no regulatory authority*** for imposition of its Temporary Authorization "criteria."[12]

NMED, moreover, has no authority to regulate the radioactive materials (tritiated water, or the byproducts of the radiolysis of tritiated water) which are causing the need to pressure mitigate the FTWCs. Pressure mitigation activities (venting) are governed by the Atomic Energy Act (AEA), 42 U.S.C. §§ 2011, *et seq*., pursuant to which the Laboratory's activities comply, and by the U.S. Environmental Protection Agency (EPA), which approved the FTWCs project pursuant to EPA's National Emission Standards for Hazardous Air Pollutants (NESHAP), 40 C.F.R. Part 61, Subparts A and H, Standards for Emissions of Radionuclides Other than Radon from Department of Energy Facilities.[13]

III. Position Permittees Assert Should be Adopted

NMED should approve Permittees' request for Temporary Authorization. The request is "consistent with the applicable requirements" and presents a technical solution "necessary for the protection of public health and the environment."[14]

Alternatively, NMED should acknowledge that pressure mitigation (venting) activities addressing radioactive materials (tritiated water, or the byproducts of the radiolysis of tritiated water) are not within NMED's jurisdiction. NMED should thereafter approve the Temporary Authorization request respecting those activities, the subsequent FTWCs storage and repackaging activities at the Technical Area (TA) 16 Weapons Engineering Tritium Facility (WETF), over which it may have jurisdiction, recognizing the Temporary Authorization request's "consisten[cy] with the applicable requirements."[15]

IV. Basis for Permittees' Position

A. NMED Should Approve Permittees' Temporary Authorization Request

Permittees have satisfied the 40 C.F.R. § 270.42(e) Temporary Authorization requirements.[16] Permittees have demonstrated the activities' compliance with the 40 C.F.R. Part 264 standards, which define the acceptable management of hazardous waste.[17] NMED acknowledges that Permittees' request is "consistent with the applicable requirements of 40 CFR § 270.42(e), which allows for NMED to consider granting approval of the temporary authorization of a Class 2 modification meeting the criteria in 270.42(e)(3)(ii)."[18] NMED represented on its FTWCs website that it "is issuing an approval allowing Los

[10] **Exhibit C** (emphasis added).
[11] *See* 40 C.F.R. § 270.42(e)(3) (noting regulator "shall ***approve or deny*** the temporary authorization ***as quickly as practical***") (emphasis added).
[12] *See* **Exhibit C**; *see also* 40 C.F.R. § 270.42(e)(3) (specifying the findings required for a temporary authorization, which do not include the criteria imposed by NMED).
[13] *See e.g.* McDonald, Director, Air Radiation Division, EPA Region 6, Letter to Wyka, Manager, Los Alamos Field Office National Nuclear Security Administration (March 18, 2025) (**Exhibit B**).
[14] **Exhibit C**.
[15] **Exhibit C**.
[16] *See* **Exhibit A**.
[17] *See* **Exhibit A**.
[18] **Exhibit C**.

Alamos National Laboratory (LANL) to treat four (4) pressurized gas containers, also known as flanged tritium waste container[s] (FTWCs)."[19]

Permittees' Temporary Authorization request, moreover, presents a technical solution "necessary for the protection of public health and the environment."[20] Permittees methodically developed, and thoroughly analyzed and assessed, their proposed pressure mitigation (and other) activities.[21] Those activities are protective of worker safety, human health, and the environment.[22] NMED has identified *no* technical deficiency in Permittees' pressure mitigation (or any) activities.[23] NMED has identified *no* way in which the activities are contrary to regulatory requirements.[24] NMED should approve the Temporary Authorization request. The Temporary Authorization request satisfies the Temporary Authorization requirements and presents a solution necessary for the protection of public health and the environment.

B. Alternatively, NMED Should Acknowledge That It Has No Jurisdiction or Authority Over Radioactive Materials

Alternatively, NMED should acknowledge that pressure mitigation (venting) activities addressing radioactive materials (tritiated water, or the byproducts of the radiolysis of tritiated water) are not within its jurisdiction. NMED should thereafter approve the Temporary Authorization request respecting those activities (subsequent FTWCs storage of hazardous waste and repackaging activities at the TA 16 WETF) over which it may have jurisdiction.

The Atomic Energy Act, 42 U.S.C. §§ 2011, *et seq*., governs the processing of radioactive materials and their byproducts[25] and, as such, governs the radioactive component of the FTWCs.[26] DOE "has exclusive authority to regulate the radioactive component" of the FTWCs.[27]

The need to process the FTWCs is caused by the radiolysis of tritiated water in the FTWCs.[28] Over time, the radiolysis of tritiated water produces pressurized hydrogen and oxygen gases, which are derived entirely from the tritium within the FTWCs.[29] These pressurized gases accumulate in the FTWCs' headspace, ultimately necessitating pressure mitigation. The Laboratory, through methodical development, analysis, and assessment, has developed a system that will safely and environmentally

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[19] *See* **Exhibit D**.
[20] **Exhibit C**.
[21] *See* **Exhibit A**.
[22] *See* **Exhibit A**.
[23] *See* **Exhibit A**.
[24] *See* **Exhibit A**.
[25] *See e.g.* 42 U.S.C. § 2201(b), (i)(3); 42 U.S.C. § 6903(27); 42 U.S.C. § 6905(a); 40 C.F.R. § 261.4(a)(4).
[26] *See Untied States v. Manning*, 527 F.3d 828, 833 (9th Cir. 2008); *United States v. Kentucky*, 252 F.3d 816 (6th Cir. 2001).
[27] *United States v. Kentucky*, 252 F.3d 816, 823 (6th Cir. 2001).
[28] See **Exhibit A**.
[29] *See* **Exhibit A**.

protectively mitigate the pressure within this headspace gas, sending the headspace gas through a getter bed to capture available tritium, and then venting the remaining gasses (hydrogen and oxygen derived from the tritium) through a monitored exhaust system.[30]

Pursuant to the AEA, DOE "has developed and implemented an extensive regulatory regime for managing radioactive materials and limiting the release of radioactivity."[31] "These regulatory standards are designed to assure that the public, workers, and the environment are not exposed to unsafe levels of radiation."[32] The AEA governs the radioactive component of the FTWCs.[33] DOE "has exclusive authority to regulate the radioactive component" of the FTWCs.[34]

The radioactive component of the FTWCs is the tritiated water and the byproducts of the radiolysis of tritiated water. NMED has no jurisdiction over pressure mitigation activities addressing tritiated water or the byproducts of the radiolysis of tritiated water. In exercising any authority it might have, [35] NMED cannot impose conditions on addressing radioactive materials, nor can it affect decisions concerning radiation hazards or safety.[36] NMED's functional denial of the Temporary Authorization request, however, does just that.

Permittees conservatively and in the exercise of caution sought NMED's authorization to conduct the FTWCs' pressure mitigation (venting) activities. However, it is appropriate for NMED to acknowledge that the pressure mitigation activities addressing radioactive materials are not within its jurisdiction. NMED should thereafter approve the Temporary Authorization request respecting those activities (subsequent FTWCs storage and repackaging activities at the TA 16 WETF) over which it may have jurisdiction, recognizing its finding that the Temporary Authorization request is "consistent with the applicable requirements."[37]

Even if NMED had authority to regulate the pressure mitigation of tritium and tritium derived gases, NMED identifies: (1) *no* regulatory basis for deciding "not to act on the temporary authorization request"; and (2) *no* regulatory basis for imposing "[p]rerequisites" or "criteria" that must be satisfied

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[30] *See* **Exhibit A**.
[31] *United States v. Kentucky*, 252 F.3d 816, 821 (6th Cir. 2001).
[32] *United States v. Kentucky*, 252 F.3d 816, 821 (6th Cir. 2001).
[33] *See Untied States v. Manning*, 527 F.3d 828, 833 (9th Cir. 2008); *United States v. Kentucky*, 252 F.3d 816 (6th Cir. 2001).
[34] *United States v. Kentucky*, 252 F.3d 816, 823 (6th Cir. 2001).
[35] NMED's jurisdiction extends to the regulation of the Resource Conservation and Recovery Act (RCRA)-regulated hazardous waste component of the FTWCs. Here, that hazardous waste component is the lead residue in the FTWCs. "Congress did not give the State a blank check to regulate mixed waste based on authority over the hazardous waste component." *United States v. Manning*, 434 F.Supp.2d 988, 1006 (E.D. Wash. 2006).
[36] *See Untied States v. Manning*, 527 F.3d 828 (9th Cir. 2008). It is clear that NMED is endeavoring to regulate radioactive materials governed by the AEA. NMED recognized in its functional denial of the Temporary Authorization request that the "explosive hazard caused by the pressurized conditions" results "from the radiolysis of tritiated water" and that the pressure mitigation process captures "radioactive gas." **Exhibit C**.
[37] **Exhibit C**.

prior to NMED's "consideration" of some future "revised request for temporary authorization."[38] To the contrary, NMED found that Permittees' "request [for Temporary Authorization] is consistent with the applicable requirements of 40 CFR § 270.42(e)"[39] and NMED represented on its FTWCs website that it "is issuing an approval allowing Los Alamos National Laboratory (LANL) to treat four (4) pressurized gas containers, also known as flanged tritium waste container[s] (FTWCs)."[40]

NMED cannot ***not*** act on the Temporary Authorization request. NMED "***shall approve or deny the temporary authorization as quickly as practical***."[41] NMED identified no impracticalities to prompt approval or denial.[42] In fact, NMED was presented with the revised Temporary Authorization request ***in March 2020***. Should NMED have believed it had authority to impose "[p]rerequisites" or "criteria" on the activities, it should have identified and exercised any authority "as quickly as practical" after receipt of the Temporary Authorization request in March 2020, not only now, 5 years and 3 months later, when even NMED "understands that a technical solution is necessary for the protection of public health and the environment."[43]

The Laboratory identified, after methodical development, analysis, and assessment, that technical solution.[44] Its implementation is necessary to protect worker safety, human health, and the environment. NMED has identified no technical concerns with the FTWCs process.[45] NMED has identified no unreasonable threats to human health or the environment posed by the FTWCs process.[46] The FTWCs process is consistent with the AEA. EPA has approved the FTWCs process.[47] NMED has found that the Laboratory's Temporary Authorization request is "consistent with the applicable requirements of 40 CFR § 270.42(e)"[48] and has represented that it "is issuing an approval allowing Los Alamos National Laboratory (LANL) to treat four (4) pressurized gas containers, also known as flanged tritium waste container[s] (FTWCs)."[49] There is no impracticality precluding NMED's approval of the Temporary Authorization request or acknowledgement that pressure mitigation (venting) activities addressing tritiated water, or the byproducts of the radiolysis of tritiated water, are not within its jurisdiction.

NMED, moreover, identifies ***no regulatory basis*** for imposing "[p]rerequisites" or "criteria" that must be satisfied prior to NMED's "consideration" of some future "revised request for temporary authorization."[50] NMED also identifies no factual support for the criteria, no nexus between the criteria

[38] **Exhibit C**.
[39] **Exhibit C**.
[40] *See* **Exhibit D**.
[41] 40 C.F.R. § 270.42(e)(3) (emphasis added).
[42] *See* **Exhibit C**.
[43] **Exhibit C**.
[44] *See* **Exhibit A**.
[45] *See* **Exhibit C**.
[46] *See* **Exhibit C**.
[47] *See* **Exhibit B**.
[48] **Exhibit C**.
[49] *See* **Exhibit D**.
[50] *See* **Exhibit C**.

and any FTWC hazardous waste activity, and no nexus between the criteria and protection of human health and the environment.[51]

Even if NMED had authority to impose these "criteria," the criteria have been functionally satisfied. The Laboratory's FTWCs pressure mitigation activities have undergone extensive analysis, consideration, review, and assessment. Alternative options were considered, such as transport of the FTWCs without venting, venting inside a larger containment vessel, constructing a temporary facility for containment, and delaying venting.[52] The Laboratory's plan, compliant with the AEA and approved by EPA,[53] that includes pressure mitigation (venting) in place and transporting onsite to WETF for further processing affords the best protection of worker safety, public health, and the environment. The Laboratory's FTWCs project has undergone extensive public and tribal outreach and review. This includes the provision of information on the FTWCs project, solicitation of feedback, and opportunity to ask and answer questions on the FTWCs project.[54] The Laboratory's hazardous waste operations, including respecting the FTWCs, are compliant with the LANL Hazardous Waste Facility Permit and protective of human health and the environment. Communications specifically regarding paths forward for FTWCs began in March 2010 under communications associated with the Site Treatment Plan for Fiscal Year 2009 under Revision 20.0 and approved by the NMED in November 2010. Additionally, quarterly update communications were conducted starting in November 2016 based on a safety analysis of the situation conducted by the DOE.[55]

There has been *no* "gross mismanagement of these waste streams," *no* "disregard of state laws and rules governing these wastes," and *no* "failure to comply with [the] New Mexico Hazardous Waste Act and its regulations." NMED cites *no* support for its allegations otherwise.[56] Such allegations are not only counterfactual, but they impede implementation of an effective solution for the FTWCs, and one that is necessary for the protection of worker safety, human health, and the environment.

V. Additional Matters Necessary for the Department's Determination

As NMED recognizes, "a technical solution is necessary for the protection of public health and the environment."[57] The Laboratory communicated in March of 2020 a technical solution protective of worker safety, human health, and the environment. Indecision, or imposition of extra-regulatory or extra-jurisdictional "criteria," is not an option. Worker safety and protection of human health and the

[51] *See* **Exhibit C**. In fact, NMED's criteria are contrary to NMED's understanding that "a technical solution is necessary for the protection of public health and the environment" and that "[n]ow, the risk of inaction poses a far greater threat than a technical solution." **Exhibit C**.
[52] For a detailed assessment of alternatives, *see* DOE/NNSA response to July 27, 2023, letter, EPA Region 6 (Dr. Erthea Nance) to NNSA Los Alamos Field Office (Theodore A Wyka) (October 12, 2023) (**Exhibit E)**.
[53] *See* **Exhibit B**.
[54] *See e.g*. Story, Acting Division Leader Environmental Protection and Compliance Division, Triad, *et al*., Letter to Maestas, Acting Chief, Hazardous Waste Bureau, NMED (June 6, 2023) (**Exhibit F**).
[55] *See e.g.* Bretzke, Division Leader, Environmental Protection and Compliance Division, *et al*., Letter to Kieling, Chief Hazardous Waste Bureau, NMED (Nov. 8, 2016) (**Exhibit G**).
[56] *See* **Exhibit C**.
[57] **Exhibit C**.

environment ***may require action during climactically appropriate conditions this year***.[58] Either NMED must approve the Temporary Authorization request owing to its "consisten[cy] with the applicable requirements,"[59] or NMED must acknowledge that it does not have authority to regulate FTWC pressure mitigation (venting) activities. NMED has not been placed in an "untenable position."[60] NMED has known a solution to the FTWCs situation would be required since at least September 2016.

Please indicate your earliest availability so that we can meet, confer, and achieve prompt resolution of this matter. Resolution must be effected within 30 days so that the Laboratory may safely, environmentally protectively, and compliantly address the FTWCs.

[58] Pressure continues to build within the FTWCs. The window of time in which safe, compliant, and controlled pressure mitigation (venting) can occur is narrowing. Pressure mitigation may be required during climactically appropriate conditions this year. Those climactic conditions, primarily temperature, may require pressure mitigation activities be complete by September or October 2025. The objectives of action are to ensure worker safety, prevent scenarios and conditions that could result in an uncontrolled, unmitigated, and unmonitored release of tritium, and maximize protection of public health and the environment.

[59] **Exhibit C**.

[60] **Exhibit C**. NMED has had 5 years and 3 months to identify any technical deficiencies in the Laboratory's FTWCs process, evaluate or identify alternatives, engage the public or tribes, or evaluate the Laboratory's hazardous waste compliance.

Exhibit A

Payne, Division Leader Environmental Protection & Compliance, Triad, *et al*. Letter to Pierard, Chief Hazardous Waste Bureau, NMED (March 9, 2020), enclosing Temporary Authorization Request-Waste Treatment, Storage, and Repackaging of Flanged Tritium Waste Containers (LA-UR-20-22103) (March 9, 2020)

Hyatt, Senior Director Triad National Security, *et al*. Letter to Nance, Chief Hazardous Waste Bureau NMED (April 4, 2025)

Los Alamos
NATIONAL LABORATORY
EST. 1943

ESHID-603576

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National Nuclear Security Administration
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(505) 667-5105/Fax (505) 667-5948

Date: MAR 0 9 2020
Symbol: EPC-DO: 20-074
LA-UR: 20-22103
Locates Action No.:

Mr. Kevin Pierard, Chief
Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505

Subject: **Withdrawal and Resubmittal of a Temporary Authorization Request for Waste Treatment, Storage, and Repackaging, Los Alamos National Laboratory Hazardous Waste Facility Permit, EPA ID# NM0890010515**

Dear Mr. Pierald:

The purpose of this letter is to withdraw and resubmit a request for approval by the New Mexico Environment-Hazardous Waste Bureau (NMED-HWB) for a Temporary Authorization Request to the Los Alamos National Laboratory (LANL) Hazardous Waste Facility Permit (the Permit). The Permit authorizes the U.S. Department of Energy (DOE), Triad National Security, LLC (Triad), and Newport News Nuclear BWXT-Los Alamos, LLC (N3B) to manage, store, and treat hazardous waste at LANL. DOE and Triad, collectively known as the Permitees, requested approval for a Temporary Authorization to support the processing (venting, sorting, segregation, and repackaging) of four Flanged Tritium Waste Containers (FTWCs) to meet DOT requirements. The modification was drafted in accordance with Title 40 of the Code of Federal Regulations (40 CFR) § 270.42(e)(3) and submitted to the NMED-HWB on June 18, 2019.

The withdrawal and resubmittal of this permit modification request provides additional pressure mitigation activity locations and provides an opportunity to address comments received from the NMED-HWB during a site visit on February 20, 2020.

Enclosure 1 contains the temporary authorization request, with a detailed explanation and supporting documentation. DOE/Triad believe that the request fully meets all applicable requirements of 40

CFR § 270.42(e)(2)(i)(A), and is consistent with Environmental Protection Agency (EPA) guidance which specifies that temporary authorizations are appropriate to "address a one-time or short-term activity at a facility for which the full permit modification process is inappropriate," (see 53 Fed. Reg. 37912, 37919; Sept. 28, 1988). Enclosure 1 was modeled according to the format and content requirements for a Class 2 permit modification request. DOE/Triad propose to complete processing of the four FTWCs within the 180-day time frame. DOE/Triad have made every effort to ensure that the information provided is appropriate and sufficient for an NMED-HWB decision approving the temporary authorization under 40 CFR § 270.42(e)(3).

Enclosure 2 provides a draft public notice. Notice of this temporary authorization request will be sent to the NMED-HWB maintained LANL facility mailing list and local and state agencies within seven days of submitting this request, in accordance with 40 CFR § 270.42(e).

If you have questions or comments concerning this withdrawal and resubmittal, please contact Karen E. Armijo, DOE, at (505) 665-7314, or Patrick L. Padilla, Triad, at (505) 667-3932.

Sincerely,

for

Jennifer E. Payne
Division Leader
Environmental Protection & Compliance Division
Triad National Security, LLC

Sincerely,

Karen E. Armijo
Permitting and Compliance Program Manager
National Nuclear Security Administration
U.S. Department of Energy

JEP/KEA/PLP:

Enclosure: 1) Temporary Authorization Request- Waste Treatment, Storage, and Repackaging of Flanged Tritium Waste Containers
2) Draft Public Notice

Copy: Laurie King, USEPA/Region 6, Dallas, TX (E-File)
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Siona Briley, NMED-HWB, Santa Fe, NM, siona.briley@state.nm.us
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Date: MAR 09 2020
Symbol: EPC-DO: 20-074
LA-UR: 20-22103
Locates Action No.:

RECEIVED
MAR 09 2020
NMED
Hazardous Waste
Bureau

Mr. Kevin Pierard, Chief
Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505

Subject: **Withdrawal and Resubmittal of a Temporary Authorization Request for Waste Treatment, Storage, and Repackaging, Los Alamos National Laboratory Hazardous Waste Facility Permit, EPA ID# NM0890010515**

Dear Mr. Pierald:

The purpose of this letter is to withdraw and resubmit a request for approval by the New Mexico Environment-Hazardous Waste Bureau (NMED-HWB) for a Temporary Authorization Request to the Los Alamos National Laboratory (LANL) Hazardous Waste Facility Permit (the Permit). The Permit authorizes the U.S. Department of Energy (DOE), Triad National Security, LLC (Triad), and Newport News Nuclear BWXT-Los Alamos, LLC (N3B) to manage, store, and treat hazardous waste at LANL. DOE and Triad, collectively known as the Permitees, requested approval for a Temporary Authorization to support the processing (venting, sorting, segregation, and repackaging) of four Flanged Tritium Waste Containers (FTWCs) to meet DOT requirements. The modification was drafted in accordance with Title 40 of the Code of Federal Regulations (40 CFR) § 270.42(e)(3) and submitted to the NMED-HWB on June 18, 2019.

The withdrawal and resubmittal of this permit modification request provides additional pressure mitigation activity locations and provides an opportunity to address comments received from the NMED-HWB during a site visit on February 20, 2020.

Enclosure 1 contains the temporary authorization request, with a detailed explanation and supporting documentation. DOE/Triad believe that the request fully meets all applicable requirements of 40

ENCLOSURE 1

Temporary Authorization Request-Waste Treatment, Storage, and Repackaging of Flanged Tritium Waste Containers

EPC-DO: 20-074

LA-UR-20-22103

Date: MAR 0 9 2020

Temporary Authorization Request
Waste Treatment, Storage, and Repackaging
of
Flanged Tritium Waste Containers

LA-UR-20-22103

March 2020

Los Alamos, New Mexico 87545

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1.0 INTRODUCTION

The Los Alamos National Laboratory (LANL) Hazardous Waste Facility Permit (hereinafter referred to as "the Permit") was issued in November 2010 by the New Mexico Environment Department. The Permit authorizes the U.S. Department of Energy (DOE); Triad National Security, LLC (Triad); and Newport News Nuclear BWXT-Los Alamos, LLC (N3B) to manage, store, and treat hazardous waste at LANL. Triad and DOE have prepared this temporary authorization request. As discussed below, the Permittees are requesting approval from the New Mexico Environment Department, Hazardous Waste Bureau (NMED-HWB) for a temporary authorization to approve a short-term treatment, storage, repackaging sort and segregation campaign for mixed hazardous waste at LANL destined for disposal at an off-site facility.

Tritium waste generated at LANL has historically been disposed of on-site at Technical Area (TA)-54 (Area G) using various disposal containers, most recently utilizing the Flanged Tritium Waste Container (FTWC). FTWCs are approximately 35-gallon stainless steel vessels, American Society of Mechanical Engineers (ASME) certified for 300 psi. The FTWCs are placed in an 85-gallon stainless steel Type A drum, intended for permanent burial.

Four FTWCs were packaged at the Weapons Engineering Tritium Facility (WETF) in 2007 and sent to Area G for on-site disposal. During a routine audit, the FTWCs were determined to contain mixed hazardous waste, specifically a very small amount of lead byproduct from fired explosive actuators, or squibs. The lead makes these FTWCs RCRA-regulated waste, and that designation precluded on-site disposal. The FTWCs contain mixed low-level waste (lead residues in spent gas valves), and tritiated wastewater, which is regulated by the Atomic Energy Act. Over time, radiolysis of tritiated water in the containers produces pressurized hydrogen and oxygen gases, derived entirely from the tritium low-level waste within the FTWCs.

Triad personnel identified an off-site repackaging company that would receive, open, segregate the hazardous waste from the nonhazardous waste, and then ship all contents to a permanent disposal site. The analysis for the shipping profile of the four FTWCs identified the potential for a flammable, pressurized mixture of hydrogen and oxygen in the free space in the FTWCs. Dissimilar metals inside the FTWCs can potentially create an ignition source during movement, so controls were implemented at Area G that prohibit access to the FTWC storage area, as well as movement or venting of the FTWC containers. Additionally, the FTWC design does not include any mechanism to release or measure pressure inside the container, as they were intended for permanent disposal only. Currently, there is no established off-site waste disposal path for any existing FTWCs at LANL.

The four FTWCs at Area G pose the greatest challenges for mitigation, and the greatest hazards because of the age, location, and configuration of the contents. LANL personnel plan to expand the design used for the WETF FTWCs to create a system that will vent the FTWCs using the lid port, send the headspace gas through a getter bed to capture available tritium, and then vent the remaining gases through a monitored exhaust system. Once the venting operation is performed the FTWCs will be safe to transport, but they will still be considered RCRA regulated waste, and will not meet DOT regulations nor the waste acceptance criteria for any off-site disposal locations. Treatment by pressure mitigation will occur at TA-54, Area G, Pad 5 which is a permitted storage unit under the LANL Hazardous Waste Facility Permit and TA-16, WETF. The venting will utilize existing infrastructure components with the addition of equipment discussed below. Further processing and repackaging is necessary prior to off-site shipment of this waste for disposal.

1.1 Request for Temporary Authorization

The Permittees are requesting the NMED-HWB approval of a temporary authorization pursuant to 20.4.1.900 NMAC, incorporating 40 CFR § 270.42(e)(2)(i)(A), to conduct a short-term waste treatment (pressure mitigation) at TA-54, Area G and TA-16, WETF and waste storage and repackaging campaign at TA-16, Building 205 (WETF). The temporary authorization is necessary because: (1) the four FTWCs must be mitigated prior to their safe transport to TA-16 by venting at TA-54, Area G prior to shipment, (2) repackaging cannot be performed at TA-54, Area G because it does not have the safety authorizations or infrastructure to perform the required process and (3) the waste cannot be transported to an off-site facility for required processing, because the containers, as stored, do not meet DOT requirements (49 CFR Parts 173 and 178) .

NMED-HWB's temporary authorization rules are specified at 40 CFR § 270.42(e) and require Permittees to submit a request that (1) describes the activities to be conducted; (2) explains why the temporary authorization is necessary; and (3) provides sufficient information to ensure the activity's compliance with 40 CFR Part 264 standards. Further, within seven days of submitting the formal request, the Permittees must notify all persons on the facility mailing list and local and State agencies about the temporary authorization request.

As described below, this temporary authorization request fully meets these criteria. Table 1-1 provides a crosswalk that identifies where each of the temporary authorization request requirements specified in 40 CFR § 270.42(e) is addressed in this document.

1.2 Proposed Activities

The four FTWCs will be vented at TA-54, Area G and will be transported to WETF (without leaving LANL property). The FTWCs will be vented and stored at WETF, and opened to segregate the contents. The lead component of the waste will be repackaged and shipped off-site to a permitted Treatment, Storage, and Disposal (TSD) facility. The remaining tritiated waste will be repackaged and disposed of off-site as radiological non-hazardous waste, and the inner containers generating the volatile atmosphere will be processed at WETF and shipped to Savannah River Site for recycling. It is important to note that once pressure mitigation at Area G has been completed, these FTWCs no longer pose a worker hazard beyond the radiological concerns. Thus, the repackaging activities at WETF will be bounded by the existing procedures and safety basis. See section 2.4 for pressure mitigation activities.

At WETF the lids from the FTWCs will be unbolted and removed using standard hand tools and existing procedures. The RCRA waste components (squibs) will be removed from the FTWCs and placed in a container that meets Permit Section 3.3.

- The repackaged waste and containers must be visually examined by a certified examiner in order to be certified to be shipped to an off-site facility.
- In this campaign, the Permittees will process only the four FTWCs at WETF.

1.3 Need for a Temporary Authorization

The four FTWCs that need to be vented at TA-54 and processed at WETF under the temporary authorization require treatment by venting, storage, sorting, segregation and repackaging. WETF is the only facility equipped to repackage tritium contaminated material, and has the necessary safety and environmental controls for sorting and storage. The requested temporary authorization will allow these activities to be performed in appropriate

locations so that the FTWCs can be safely processed and shipped to an off-site facility. The Permittees intend to complete the project within the 180 days allowed under a temporary authorization.

Due to the limited, one-time and short-term nature of this waste processing campaign, along with the relatively simple nature of the planned waste management activities, this project is appropriate to be approved under the temporary authorization process. The Environmental Protection Agency (EPA) has clarified that a temporary authorization is appropriate to address a "one-time or short-term activity for which the full permit modification process is inappropriate." [see U.S. EPA, *Permit Modifications for Hazardous Waste Facilities*, 53 Fed. Reg. 37912, 37919 (Sept. 28, 1988)].

1.4 Compliance with 40 CFR Part 264 standards

The Permittees have ample information demonstrating that this temporary authorization request will meet the standards under 40 CFR Part 264. As explained in detail below, the Permittees will meet these requirements through the current Permit and specific information provided in this document. The current Permit contains many of the conditions addressing the requirements of the New Mexico Hazardous Waste Act (HWA) and 40 CFR Part 264 that are common to all LANL hazardous waste management units. Table 1-2 provides a list of these regulatory references and the corresponding location for the information addressed in this request. Many of the generally applicable 40 CFR Part 264 standards will be met by managing this project according to all applicable requirements contained in the current Permit, including Part 1 – General Permit Conditions; Part 2 – General Facility Conditions; Part 3 – Storage in Containers; Permit Attachment C – Waste Analysis Plan; Permit Attachment D – Contingency Plan; Permit Attachment E – Inspection Plan; and Permit Attachment F – Personnel Training Plan. Specifics of how each provision will be met are discussed further below.

1.5 Temporary Authorization Objectives

The temporary authorization must achieve at least one of the following objectives specified in 40 CFR § 270.42(e)(3)(ii):

A. To facilitate timely implementation of closure or corrective action activities;
B. To allow treatment or storage in tanks or containers, or in containment buildings in accordance with 40 CFR Part 268;
C. To prevent disruption of ongoing waste management activities;
D. To enable the permittees to respond to sudden changes in the types or quantities of the wastes managed under the facility permit; or
E. To facilitate other changes to protect human health and the environment.

This temporary authorization request will specifically achieve the objective specified in 40 CFR § 270.42(e)(3)(ii)(B) above, by allowing processing of these FTWCs by facilitating protection of human health and the environment through segregating the Mixed Low Level Waste (MLLW) and providing a path forward [40 CFR § 270.42(e)(3)(ii)(E)].

Table 1-1 Crosswalk of 40 CFR § 270.42(e) with Temporary Authorization Request

Regulatory Citation (40CFR)	Description of Requirement	Document Location/Comment
Sufficiency Criteria		
40 CFR § 270.42(e)(2)(ii)	Request must include:	
40 CFR § 270.42(e)(2)(ii)(A)	Activities to be conducted	1.2, 2.0 through 2.15
40 CFR § 270.42(e)(2)(ii)(B)	Why it is necessary	1.3
40 CFR § 270.42(e)(2)(ii)(C)	Compliance with 40 CFR Part 264	1.4, Table 1-2
40 CFR § 270.42(e)(2)(iii)	Send a notice to all persons on the facility mailing list	Will be sent within 7 days of temporary authorization request
Approval Criteria		
40 CFR § 270.42(e)(3)	To issue the temporary authorization, NMED must find:	
40 CFR § 270.42(e)(3)(i)	Activities are compliant with 40 CFR Part 264	1.4, Table 1-2
40 CFR § 270.42(e)(3)(ii)	Temporary authorization is necessary to achieve project objectives before action likely on a modification request	1.3
40 CFR § 270.42(e)(3)(ii)(B)	Allows treatment or storage in tanks or containers, or in containment buildings in accordance with 40 CFR Part 268	1.2, 2.0 through 2.15
40 CFR § 270.42(e)(3)(ii)(C)	Prevent disruption of ongoing waste management activities	The sorting, segregating and repackaging of the FTWCs will allow them to be safely processed and shipped to an off-site facility.
40 CFR § 270.42(e)(3)(ii)(E)	Facilitate other changes to protect human health and the environment	Facilitates shipment of the FTWCs to an off-site facility and reduces potential exposures at the facility.

Table 1-2 Compliance with 40 CFR Part 264 Standards - Temporary Authorization Crosswalk

Permit/ Regulatory Citation(40 CFR)	Description of Requirement	Compliance Approach
§ 264.13(b)	Development and implementation of waste analysis plan	The project will comply with Permit Section 2.4 and Permit Attachment C.
§ 264.14	Security	The project will comply with Permit Section 2.5. WETF is a secure facility and meets all security requirements of 40 CFR § 264.14 and the Permit.
§ 264.15(b)	General inspection requirements	The project will comply with Permit Section 2.6 and Permit Attachment E. An inspection program at WETF is in place and in compliance with the operating schedule, recordkeeping, and response action commitments in Permit Attachment E (*Inspection Plan*) and 40 CFR § 264.15(b)(i).
§ 264.174	Container inspections	The project will comply with Permit Sections 2.6 and 3, and Permit Attachment E.
§ 264.15(c),	Inspections, Preparedness and prevention	Any deterioration or malfunction of equipment or structures discovered during an inspection which may lead to an environmental or human health hazard shall be mitigated within 24 hours of discovery of the problem. The Permittees shall immediately implement remedial action where a hazard is imminent or has already occurred (see Permit Section 2.10)
§ 264.16	Personnel Training	WETF personnel have successfully completed all training programs in compliance with the training requirements in Permit Attachment F (*Personnel Training Plan*) of the Permit.
§ 264.17	General requirements for ignitable, reactive, or incompatible wastes	The project will comply with Permit Section 2.8. All wastes to be dispositioned under the temporary authorization will be managed in compliance with the requirements of 40 CFR §§ 264.17, 264.176, 264.177, and 264.198.

Permit/ Regulatory Citation(40 CFR)	Description of Requirement	Compliance Approach
Part 264, Subpart C	Preparedness and prevention	The project will comply with Permit Section 2.10 and Permit Attachment D. For the duration of the temporary authorization, TA-16, Rooms 116 and 122 will be maintained and operated in a manner that minimizes the possibility of fire, explosion or any unplanned sudden or non-sudden release of hazardous waste or hazardous constituent that could threaten human health or the environment (40 CFR § 264.31). The list of equipment available at WETF in Rooms 116 and 122 is in Table 2-1 and meets Permit Section 2.10.1.
§ 264.32(b),	Internal communication and alarm system devices, fire control equipment, spill control equipment, and decontamination equipment	Internal communication and alarm system devices, fire control equipment, spill control equipment, and decontamination equipment included in Table 2-1 in compliance with 40 CFR § 264.32(b)(2).
Part 264, Subpart D	Contingency plan and emergency procedures	The project will comply with Permit Section 2.11 and Permit Attachment D.
§ 264.51(b),	Contingency Plan	The Permittees will immediately implement Permit Attachment D (*Contingency Plan*) if there is an incident (such as a fire, an explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous constituents) unit that threatens human health or the environment
§§ 264.71, 264.72, and 264.76.	Recordkeeping and reporting requirements	The Permittees will maintain operating records, and comply with the recordkeeping and reporting requirements associated with manifests, in accordance with 40 CFR §§ 264.71, 264.72, 264.76 and Permit Sections 1.9 and 2.12.
Part 264, Subpart I	Use and Management of Containers	The FTWCs will be stored and managed in accordance with 40 CFR Part 264, Subpart I, 40 CFR § 264.173, and Permit Section 3. All containers used for repackaging of hazardous

Permit/ Regulatory Citation(40 CFR)	Description of Requirement	Compliance Approach
		wastes during the temporary authorization will be in good condition (e.g., no severe rusting or apparent structural defects) in accordance with 40 CFR § 264.171, and LANL will only use containers that comply with 40 CFR Part 264 Subpart I (*Use and Management of Containers*) for storage of hazardous waste. Only containers made of, or lined with, materials that are compatible with and will not react with the hazardous waste to be sorted, treated and/or repackaged will be used, so that the ability of the container to contain the waste is not impaired (40 CFR § 264.172).
§ 264.175	Secondary containment	No free liquids are planned to be processed during this activity. However, if encountered, secondary containment will be used to store wastes which contain free liquids in compliance with 40 CFR § 264.175 and Permit Section 3.
Part 264, Subpart CC	Air pollutant emissions	40 CFR Part 264 § 264.1080(b)(6) Subpart CC requirements do not apply to mixed low-level waste.
§ 264.112	Amendment of closure plan	The project will comply with Permit Section 9 and Section 5 of this request.
§ 264.178	Closure/containers	The project will comply with Permit Section 9 and Section 5 of this request. A report will be submitted to the Department no later than 60 days after completion of authorized activities, in accordance with 40 CFR § 264.115.

2.0 DESCRIPTION OF ACTIVITIES TO BE CONDUCTED AND COMPLIANCE WITH PART 264 STANDARDS

2.1 Location of Temporary Authorization Activities

Treatment by pressure mitigation will occur at TA-54, Area G, Pad 5, building 1028 which is a permitted storage unit under the LANL Hazardous Waste Facility Permit, and TA-16, WETF. The venting will utilize existing infrastructure components with the addition of equipment discussed below.

The permitted unit at TA-54, Area G, Pad 5 measures 850 feet long and 224 feet wide, and is located in the western portion of Area G. It is four inches thick, is sloped 1-2%, and is comprised of three asphalt pads (Pad 5 and older Pads 7 and 8). There are ten structures associated with the permitted unit: two domes (Domes 224 and 49) and eight sheds (sheds 144, 145, 146, 177, 1027, 1028, 1030, and 1041). Rainwater flow at the permitted unit is directed across the pad by slope and drainage structures (i.e., supplemental check berm, culvert, and sediment traps). Storage Shed 1028, is a prefabricated shed constructed of steel measuring approximately 23 ft long, nine foot wide and 8.5 ft high. The shed is equipped with three sets of double doors on one side of the shed for ease of access and have liquid-tight sumps to prevent runoff and contain any potential leaks or spills. The floor of the shed is constructed of a metal grate that covers the sump areas. Containers are placed directly on the metal grates, which prevents contact with liquids that may have accumulated in the sumps. The interior of the shed and sump is coated with chemically-resistant epoxy paint.

All other storage and repackaging activities under this temporary authorization will take place within the WETF, in Rooms 116 and 122. These rooms are shown on Figure 2-2. TA-16 is located in the southwestern portion of LANL (Figure 2-1). It is situated on a broad mesa that is bounded on the north by Cañon de Valle, on the south by State Road 4 and Bandelier National Monument, and on the west by West Jemez Road (State Road 501) and the Santa Fe National Forest. Elevation ranges from approximately 7,700 feet at the west end of the TA to approximately 6,800 feet at the lower east end. Topography is varied, ranging from steep precipitous canyon walls to sloping mesa tops. WETF is located in the southwest corner of TA-16 (Figure 2-1). It is located on a mesa that drains to the east and south, and that is bordered on the northern side by Cañon de Valle and on the southern side by Water Canyon.

The process will utilize existing infrastructure components at WETF, including the facility tritium monitor system, fire protection system, fume hoods, cranes, etc. Facility radiological control systems will be utilized to manage contamination, primarily portable ventilation devices and fume hoods that are part of the facility ventilation system. The waste components will be removed from the FTWCs, and placed in a container that meets Permit Section 3.3. The drum will be placed in storage at the WETF until shipped off-site for disposal.

2.2 Schedule

This short-term project is expected to take no longer than 180 days to complete. This project is scheduled to tentatively begin on April 17, 2020. The RCRA regulated waste will be shipped off-site for permanent disposal and the non-RCRA regulated items will remain in the facility for further processing and off-site disposal.

2.3 Description of Wastes to be Managed

Waste will be stored in compliance with the existing TA-54, Area G, building 1028 and WETF requirements. The required processing of the FTWC waste consists of 3 constituents: the fired actuators/squibs (the RCRA regulated component), bulk molecular sieve material (non-RCRA), and the inner AL-M1 containers (non-RCRA). There are a total of four FTWC containers that contain the RCRA waste (lead), and the contents are well documented and photographed at the time of packaging. This waste has been maintained in permitted RCRA storage at Area G for several years; therefore, this project will not increase LANL's RCRA-permitted storage capacity. The repackaged waste and containers must be visually examined by a certified examiner in order to be certified to be shipped to an off-site disposal location, and none of the containers to be processed contain free liquids. WETF will process only those waste items that can be managed within the approved safety basis for the facility.

2.4 Pressure Mitigation Activities at TA-54, Area G and TA-16, WETF

Pressure mitigation activities will take place at TA-54, Area G, inside and outside of building 1028; and at TA-16, inside and outside of the WETF. The FTWC headspace gas contains hydrogen, oxygen, and tritium. The tritium may be in the form of water vapor or as elemental hydrogen gas. A vent manifold has been developed for use on FTWCs at other LANL sites. This vent manifold will connect to the top of the FTWC and open a release path through an existing port in the FTWC lid. Headspace gas inside the FTWC will pass through an AL-M1 molecular sieve bed to capture water vapor. This monitoring exhaust line will be set up at building 1028 for this venting operation and is not a permanent feature of the building. The *Application for Pre-Construction Approval under 40 CFR 61 Subparts A and H for Venting of Flanged Tritium Waste Containers (FTWCs) at TA-54* was submitted and approved by the U.S. Environmental Protection Agency, Region 6 in May 2019. A leak-tight chamber is fitted over the port in the FTWC lid, providing containment for the headspace gases while the plug is loosened. The gases can then be released in a controlled manner through a metering valve attached to the vent chamber. Once the pressure hazard is mitigated by venting, the FTWC will additionally be evacuated through a vacuum system to further mitigate the hazard. The FTWCs will still pose a radiological hazard and will be prepared for transportation, loaded at TA-54, and transported to LANL's Weapons Engineering Tritium Facility (WETF) at TA-16 for sorting and segregation. Transport will involve an on-site road closure and will be performed using the LANL Transportation Safety Document controls. In the same manner as at TA-54, Area G, pressure mitigation activities may also take place upon arrival outside the WETF facility prior to entry. The FTWCs will be unloaded at WETF using existing procedures and will be managed and processed using existing controls and procedures.

2.5 Storage and Repackaging Activities at WETF

The four FTWCs will be stored at WETF in room 122 and will be taken to room 116 for repackaging. The lids from the FTWCs will be unbolted and removed using standard hand tools and existing procedures. Facility radiological control systems will be utilized to manage contamination, primarily portable ventilation devices and fume hoods that are part of the facility ventilation system. The RCRA waste components (squibs) will be removed from the FTWCs, and placed in a container that meets requirements of Permit Section 3.3.

2.5.1 Container Management

The Permittees will meet all storage configuration and aisle spacing requirements as set forth in Permit Section 3.5.1.

The Permittees shall ensure that all containers used to store hazardous wastes for this project are in good condition (*e.g.,* no severe rusting or apparent structural defects) in accordance with Permit Section 3.2 and 40 CFR § 264.171. If a container is not in good condition or begins to leak, the Permittees shall transfer the waste from such a container into a container that is in good condition within 24 hours of discovery of the problem. All containers used for repackaging will meet all Department of Transportation (DOT) specifications under 49 CFR § 178 and requirements of the off-site facility waste acceptance criteria. They will be new, DOT-certified containers appropriate for their contents.

The Permittees shall use containers made of, or lined with, materials that are compatible with and will not react with the hazardous waste to be stored, so that the ability of the container to contain the waste is not impaired, in accordance with Permit Section 3.4 and 40 CFR § 264.172.

During storage and processing, containers will be managed to meet the requirements of Permit Section 3.5.

The Permittees shall ensure that all containers storing hazardous or mixed waste meet the labeling requirements set forth in Permit Section 3.6.

After transport from TA-54, Area G, building 1028 to WETF, containers will be transported between rooms 122 and 116 at WETF (where storage, segregation and repackaging activities will occur) using a pallet jack.

The four FTWCs will be stored at WETF in room 122 and will be taken to room 116 for repackaging. The contents of each container will be sorted, segregated, and repackaged to segregate the RCRA waste (the fired actuators/squibs) from the non-RCRA waste.

The planned temporary authorization activities consist entirely of treatment, storage and repackaging the four FTWCs.

2.6 Authorized Wastes and Waste Acceptance

WETF will be used only to process the four FTWCs currently stored at TA-54, Area G, building 1028 discussed in Section 2.3 of this request. This waste has been characterized in accordance with the requirements of Permit Section 2.4, *Waste Analysis*, and Permit Attachment C, *Waste Analysis Plan* (WAP), as applicable. The hazardous component of this waste is lead; therefore, the only applicable Environmental Protection Agency (EPA) Hazardous Waste Number is D008.

2.6.1 Visual Examination for Off-Site Disposal

During repackaging, all items will be visually examined by a certified examiner in order to be certified to be shipped to an off-site disposal facility. None of the containers to be processed contain free liquids.

2.7 Security and Access Control

Security and access control for TA-54, Area G, building 1028 is described in Permit Attachment A, *Technical Area (TA) - Unit Descriptions*, in Section A.4.4. WETF has an established, robust access control program and security infrastructure to ensure appropriate safeguards for nuclear material.

2.8 Hazards Prevention

Adherence to the current procedures and proper use of the structures and equipment will help to prevent hazards, prevent undue exposure of personnel to hazardous waste, and prevent releases to the environment. Specific requirements for TA-54, Area G, Pad 5 are included in Permit Attachment A, *Technical Area (TA) - Unit*

Descriptions, in Section A.4. Details specific to WETF in rooms 116 and 122 operations are presented in the following sections. In the event of an emergency, the procedures presented in the Permit Sections 2.10 and 2.11, and Permit Attachment D, *Contingency Plan*, in accordance with the requirements of 40 CFR §§ 264.50-56 and 270.14(b)(8) will be followed.

2.8.1 Waste Handling

Waste handling at TA-54, Area G, building 1028 will be conducted in accordance with Permit Part 3. The FTWCs will be stored before and after sorting, segregation and repackaging. FTWCs will be transported between rooms at WETF using a pallet jack.

2.8.2 Preventing Hazards in Unloading/Loading

The use of trained waste management personnel and proper handling equipment appropriate to a container's size and weight will help to prevent hazards while moving containers. Waste management personnel will be trained for safe handling operations in accordance with Permit Attachment F, *Personnel Training Plan*, of the Permit. Refer to Section 3.0 of this document for a discussion of training specific to this project.

2.8.3 Mitigating Effects of Power Outages

Electrical power is supplied at TA-16, rooms 116 and 122 to operate building ventilation systems, the Public Address (PA) system, various instruments, and other electrical equipment. Evacuation alarms, equipped with a battery backup, are located throughout WETF. During a power outage, operations will be discontinued until power is restored.

At permitted units where equipment is necessary to mitigate the effects of a power outage, the Permittees shall maintain batteries, generators, or some other form of backup power supply capable of operating equipment including evacuation alarms, emergency communication equipment, automatic fire suppression systems, and emergency lights (See 40 CFR §§ 270.14(b)(8)(iv) and 270.32(b)(2)). The backup power supplies will be used to meet the requirements of Permit Section 2.10.1, *Required Equipment*.

2.8.4 Preventing Undue Exposure

To prevent undue exposure of personnel to hazardous or mixed waste, a formal radiological protection requirements program has been established at WETF. Personal protective equipment appropriate for the waste being handled is worn by all on-site personnel at WETF involved in waste management activities within the area. Workers involved in waste handling at WETF are required to wear protective work uniforms and steel-toed/composite-toed shoes, as appropriate. Hard hats and gloves may also be worn while equipment is being operated and when containers are being loaded or unloaded.

2.9 Preparedness and Prevention

Preparedness and prevention procedures and equipment at TA-54, Area G, Pad 5 are in compliance with Permit Section 2.10. and Permit Attachment A, Section A.4.5. The specific descriptions for WETF are described in the section below.

2.9.1 Required Equipment

In accordance with Permit Section 2.10.1, *Required Equipment*, Permit Attachment D, *Contingency Plan,* and LANL requirements, WETF is specifically equipped with internal communication and alarm system devices, fire control equipment, and spill control equipment. Decontamination equipment such as portable eyewash stations and safety showers are available in numerous locations in WETF. Table 2-1 provides a list of the specific equipment located in or near Rooms 116 and 122.

WETF is equipped with multiple audible and visual safety-alarm systems to alert personnel in the event of an emergency and to evacuate the area. Fire-alarm pull boxes and/or drop box push-button alarms may be used by personnel to activate a local fire alarm when a fire or other emergency is discovered.

2.9.2 Testing and Maintenance of Equipment

In accordance with Permit Section 2.10.2, *Testing and Maintenance of Equipment*, all communications and alarm systems, fire protection, and decontamination equipment will be inspected, tested, and/or maintained as provided according to Permit Section 2.6.1, *Inspection Schedule*. Maintenance, repair and replacement of emergency equipment will be performed as required.

2.9.3 Access to Communications or Alarm Systems

Whenever Rooms 116 and 122 at TA-16 contain hazardous waste, employees will have immediate access to an internal alarm or emergency communication device, either directly or through visual or voice contact with another employee in accordance with Permit Section 2.10.3 (*see* 40 CFR § 264.34(a)). No employee is allowed to work alone at WETF in Rooms 116 and 122. Employees will be capable of summoning external emergency assistance via a land-line telephone (*see* 40 CFR § 264.34(b)) without having to enter another building (*see* 40 CFR § 270.32(b)(2)). Table 2-1 provides a list of the specific communications equipment and alarms located in or near Rooms 116 and 122.

2.9.4 Space Requirements

Room 122 has an area of 612 square feet and has sufficient space for the temporary storage of the four FTWCs. Figure 2-2, shows the general location of Room 122 in WETF.

Room 116 has an area of 759 square feet and has sufficient space for the segregation and repackaging of the FTWCs. Figure 2-2, shows the general location of Room 116 in WETF. The hoist that will be used to remove the FTWCs from overpack is located in this room (Figure 2-3).

2.10 Contingency Plan

In the unlikely event that there is a documented release, procedures are in place and personnel are trained to respond in accordance with facility contingency plans, as applicable (per Permit Attachment D). The facility will immediately identify whether the breach will be managed as a contained spill, or a release that threatens human health or the environment (see Permit Section 1.9.12 and 1.9.13).

Hazardous waste spills are managed by type and severity of the incident. If a hazardous waste spill occurs, line management evaluates the type and severity of the spill and determines if assistance from the Facility's emergency management personnel is required. If not, the spill is managed internally by facility personnel.

For the treatment, storage, segregation and repackaging project at WETF in Rooms 116 and 122, the Permittees shall implement applicable provisions of this Contingency Plan and the applicable provisions of Permit Section 2 immediately to minimize hazards if there is a fire, explosion, or release of hazardous or mixed waste or constituents that could threaten human health or the environment.

Emergency equipment currently available for use at TA-54, Area G, Pad 5, building 1028 are listed in Table D-2, TA-54, Area G of Permit Attachment D; and equipment available at WETF in Rooms 116 and 122 are listed in Table 2-1. It may be replaced and/or upgraded with functionally equivalent components and equipment as necessary for routine maintenance and repairs.

2.11 Containment Systems

No free liquids are planned to be handled or managed during the temporary authorization activities.

2.12 Ignitable, Reactive, and Incompatible Wastes

Ignitable or reactive wastes will not be intentionally processed as part of this temporary authorization activity. However, if they are encountered unintentionally during activities, they will be packaged in sealed containers as prohibited or nonconforming items and will not be exposed to ignition sources. Precautions will be taken to prevent reactions that may generate extreme heat, pressure, fire, or explosion, and minimize the potential for uncontrolled toxic mists, fumes, dusts, or gases. Incompatible wastes will be segregated and separated during processing in accordance with 40 CFR § 264.17(c) and Permit Section 2.8.2, *Incompatible Wastes Precautions*. Together, all these measures will meet the requirements of 40 CFR §§ 264.17(a) and (b) and 264.176.

2.13 Inspections

All equipment associated with the treatment, storage, sorting, segregation and repackaging activity will be inspected in accordance with Permit Section 2.6 and Permit Attachment E (*Inspection Plan*). The Inspection Record Form (IRF) will be used on days when wastes associated with sorting, segregation and repackaging operations are present in Rooms 116 and 122 and weekly when only storage activities are occurring. No changes to the IRF are required.

2.14 Recordkeeping Requirements

In accordance with 40 CFR Part 264, Subpart E, recordkeeping requirements applicable to the temporary authorization activities are discussed in the following sections. Operations in rooms 116 and 122 at WETF will meet the requirements of Permit Section 2.12, *Recordkeeping and Reporting*.

2.15 Reporting

All reporting requirements under the Permit and pertaining to the temporary authorization activities will include these activities, as appropriate.

Table 2-1
TA-16-205 Emergency Equipment

FIRE CONTROL EQUIPMENT

- Dry-chemical fire extinguishers are located throughout WETF. The fire extinguishers are portable, manually-operated units and can be used by any employee in case of fire.
- Fire alarm drop boxes and push button stations are available throughout WETF. They can be activated by any employee in the event of fire to notify the Central Alarm Station.
- Smoke detectors are located throughout WETF.
- An automatic fire suppression sprinkler system is located at WETF.
- Fire hydrants are located outdoors on the north, south, and west sides of WETF.

SPILL CONTROL EQUIPMENT

- A spill control kit is available in Rooms 116 and 122 at WETF.

COMMUNICATION EQUIPMENT

- Telephones are located throughout WETF. The telephones are capable of handling incoming/outgoing calls and paging.
- Two-way radios are available for personnel working at WETF in Rooms 116 and 122, and a facility-wide paging system exists.

ALARMS AT WETF

- A facility fire alarm system and tritium alarm system exists and operators are trained and qualified on alarm response.

DECONTAMINATION EQUIPMENT

- Safety showers and eyewash stations are located throughout the facility for decontamination of personnel who receive a chemical splash to the skin or eyes.

PERSONAL PROTECTIVE EQUIPMENT

- A change room/decontamination shower with protective clothing is available in the facility. Protective clothing is also available in a locker upon entry into the tritium processing area for use by personnel working in or near Rooms 116 and 122 at WETF.

OTHER

If transportation is needed for evacuation, vehicles may be obtained through the emergency management personnel.

3.0 TRAINING REQUIREMENTS

The Permittees shall ensure that all personnel who are involved in hazardous waste management activities in rooms 116 and 122 successfully complete all training programs in compliance with the training requirements of 40 CFR § 264.16, which is incorporated herein by reference, as well as the training requirements in Permit Attachment F, *Personnel Training Plan*. Additionally, personnel will be trained to a specific WETF procedure for FTWC unsealing and unloading.

4.0 CORRECTIVE ACTION

Permit Attachment K, *Listing of SWMUs and AOCs,* provides information in response to regulatory requirements in 40 CFR §§ 270.14(d), 264.101, and 264.602.

5.0 CLOSURE PLAN

The closure plan for TA-54, Area G, Pad 5 is included as Permit Attachment G.8, *Technical Area 54, Area G, Pad 5 Outdoor Container Storage Unit Closure Plan*. Closure requirements for WETF associated with this temporary authorization are detailed in the sections below. These requirements were drafted in accordance with Permit Part 9, *Closure*.

5.1 Introduction

The temporary authorization area consists of two rooms within the WETF. When the area is no longer needed for storage of the waste, the following closure activities will be conducted.

5.2 Estimate Of Maximum Waste Processed

The four FTWCs that will be stored and repackaged in the rooms are a total volume of 340 gallons. Approximately 10 gallons of mixed waste will be segregated from the total volume and sent off-site for disposal.

5.3 General Information

5.3.1 Performance Standard

Rooms 116 and 122 at WETF will be returned to their original state.

5.3.2 Schedule

The activities outlined for closure will begin within 30 days after the mixed waste (repackaged lead components) has been evaluated and shipped off-site for disposal.

5.3.3 Amendment of the Plan

This closure plan will be amended in the event that a spill or release occurs during storage or repackaging.

5.4 Closure Procedures

5.4.1 Records Review And Structural Assessment

Operating records for this temporary authorization campaign will be reviewed for any leaks, spills, or loss of containment integrity during the period of treatment, storage, sorting and repackaging operations.

5.4.2 Decontamination and/or Removal of Structures and Equipment

Under normal operational conditions, it is expected that there will be no need to decontaminate any structure or equipment in Rooms 116 and 122. In the unlikely event that there is a documented release in the rooms, Permit conditions for indoor units in Permit Sections 9.4.3, 9.4.4, and 9.4.5 will generally become applicable. Permit Section 9.4.3.1 requirements will be met by performing at least two consecutive wipe-downs of the surfaces and structures using cheesecloth and approved cleaning agents.

5.4.3 Equipment Used During Decontamination Activities

Any equipment used for decontamination purposes will be managed in accordance with applicable LANL procedures.

5.5 Sampling and Analysis Plan

Pre-start wipe samples will be collected in Rooms 116 and 122 to establish a baseline condition to which the room will be returned at the conclusion of operations. Facility radiological control systems will be utilized to manage contamination, primarily portable ventilation devices and fume hoods that are part of the facility ventilation system.

5.5.1 Decontamination Verification Sampling Activities

Decontamination verification sampling activities for the constituent of concern, as described in Sections 5.5.1 through 5.5.5 below, will be conducted at WETF within Rooms 116 and 122 only in the event that there is a documented release. They would be conducted in order to verify that surfaces and related equipment at WETF meet the closure performance standards in Permit Section 9.2. All samples will be collected and analyzed in accordance with the Permit, Section 9.4.

One wipe sample will be collected from each piece of decontaminated equipment at WETF. In compliance with Permit Section 9.4.7.1.i, this plan will ensure the collection of at least one wipe sample from the floor and one from each wall (up to 11 feet in height from floor) of the room. Verification wipe samples will be collected from random locations within the storage, sorting and repackaging operational area within Rooms 116 and 122. A total of six wipe samples will be collected in room 122: one from the floor; one from each of the four walls; and one from the area of the entry door. One wipe sample will be taken from the floor in room 116 where the repackaging will occur.

5.5.2 Sample Collection Procedures

Samples will be collected in accordance with Permit Section 9.4.7.1, which incorporates guidance from the EPA (EPA, 2002), DOE (DOE, 1995), and other NMED-approved procedures.

5.5.2.1 Wipe Sampling

Surface wipe samples will be collected and analyzed to determine if residual hazardous constituents remain on the surfaces and related equipment at WETF in Rooms 116 and 122. Samples will be collected in accordance with the National Institute of Occupational Safety and Health (NIOSH) *Manual of Analytical Methods* (NIOSH, 1994). The appropriate wipe sample method will consider the type of surface being sampled, the type of constituent being sampled for, the solution used, and the desired constituent concentration detection limits.

The NIOSH method includes wiping a 100 square centimeter area at each discrete location with a gauze wipe wetted with a liquid solution appropriate for the desired analysis (*e.g.*, deionized water for lead). For wipe sampling, guidance from the analytical laboratory must be obtained prior to wipe verification sampling to confirm that the solution chosen for each analysis is appropriate for the analysis to be conducted and that wipe sampling is a proper technique for the analysis.

5.5.2.2 Cleaning of Sampling Equipment

Reusable sampling equipment will be cleaned and rinsed prior to use. Sampling equipment rinsate blanks will be collected and analyzed only if reusable sampling equipment is used. Reusable decontamination equipment, including protective clothing and tools, used during closure activities will be scraped as necessary to remove residue and cleaned with a wash water solution. Sampling equipment will be cleaned prior to each use with a wash solution, rinsed several times with tap water, and air-dried to prevent cross-contamination of samples. A disposable sampler is considered clean if still in a factory sealed wrapper.

5.5.3 Sample Management Procedures

The following sections provide a description of sample documentation, handling, preservation, storage, packaging, and transportation requirements that will be followed during the sampling activities associated with the closure.

5.5.3.1 Sample Documentation

Sampling personnel will complete and maintain records to document sampling and analysis activities. Sample documentation will include sample identification numbers, chain-of-custody forms, analysis requested, sample logbooks detailing sample collection activities, and shipping forms (if necessary).

5.5.3.2 Chain-Of-Custody

Chain-of-custody forms will be maintained by sampling personnel until samples are relinquished to the analytical laboratory. This will ensure the integrity of the samples and provide for an accurate and defensible written record of the sampling possession and handling from the time of collection until laboratory analysis. One chain-of-custody form may be used to document all of the samples collected from a single sampling event. The sample collector will be responsible for the integrity of the samples collected until properly transferred to another person. The EPA considers a sample to be in a person's custody if it is:

- In a person's physical possession;
- In view of the person in possession; or
- Secured by that person in a restricted access area to prevent tampering.

The sample collector will document all pertinent sample collection data. Individuals relinquishing or receiving custody of the samples will sign, date, and note the time on the analysis request and chain-of custody form. A chain-of-custody form must accompany all samples from collection through laboratory analysis. The analytical laboratory will return the completed chain-of-custody form to the Facility and it will become part of the permanent sampling record documenting the sampling efforts.

5.5.3.3 Sample Labels and Custody Seals

A sample label will be affixed to each sample container. The sample label will include the following information:

- A unique sample identification number;
- Name of the sample collector;
- Date and time of collection;
- Type of preservatives used, if any; and
- Location from which the sample was collected.

A custody seal will be placed on each sample container to detect unauthorized tampering with the samples. These labels must be initialed, dated, and affixed by the sample collector in such a manner that it is necessary to break the seal to open the container.

5.5.3.4 Sample Logbook

All pertinent information on the sampling effort must be recorded in a bound logbook. Information must be recorded in ink and any cross-outs must be made with a single line with the change initialed and dated by the author. The sample logbook will include the following information:

- The sample location;
- Suspected composition;
- Sample identification number;
- Volume/mass of sample taken;
- Purpose of sampling;
- Description of sample point and sampling methodology;
- Date and time of collection;
- Name of the sample collector;
- Sample destination and how it will be transported;
- Observations; and
- Name(s) of personnel responsible for the observations.

5.5.3.5 Sample Handling, Preservation, and Storage

Samples will be collected and containerized in appropriate pre-cleaned sample containers. The requirements in *SW-846* (EPA, 1986) for sample containers, preservation techniques, and holding times will be applicable. Samples that require cooling to 4 degrees Celsius will be placed in a cooler with ice or ice gel or in a refrigerator immediately upon collection.

5.5.4 Packaging and Transportation of Samples

All packaging and transportation activities will meet safety expectations, QA requirements, DOE Orders, and relevant local, state, and federal laws (including 10 CFR and 49 CFR). Appropriate Facility documents establish the requirements for packaging design, testing, acquisition, acceptance, use, maintenance, and decommissioning and for on-site, intra-site, and off-site shipment preparation and transportation of general commodities, hazardous materials, substances, wastes, and defense program materials.

Off-site transportation of samples will occur via private, contract, or common motor carrier, air carrier, or freight. All off-site transportation will be processed through the Facility packaging and organization unless the shipper is specifically authorized through formal documentation by the packaging and transportation organization to independently tender shipments to common motor or air carriers.

5.5.5 Sample Analysis Requirements

Samples will be analyzed for lead by an independent laboratory using the latest revision of SW-846 Methods 7000B and 7010. A field blank and field duplicate sample will also be collected to ensure compliance with QA/QC procedures defined by the latest revision of "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (*SW-846*) (EPA, 1986).

5.6 Analytical Laboratory Requirements

The analytical laboratory will perform detailed qualitative and quantitative chemical analyses will have:

- A documented comprehensive QA/QC program;
- Technical analytical expertise;
- A document control and records management plan; and
- The capability to perform data reduction, validation, and reporting.

5.6.1 Data Reporting Requirements

Analytical results will include all pertinent information about the condition and appearance of the sample as-received. Analytical reports will include:

- A summary of analytical results for each sample;
- Results from QC samples such as blanks, spikes, and calibrations;
- Reference to standard methods or a detailed description of analytical procedures; and
- Raw data printouts for comparison with summaries.

The laboratory will describe sample preparations that occur during the analysis in sufficient detail so that the data user can understand how the sample was analyzed.

5.7 Waste Management

All waste generated during closure activities for the temporary authorization work will be controlled, handled, characterized, and disposed of in accordance with Permit Section 9.4.5, Permit Attachment C (*Waste Analysis Plan*), and Facility waste management procedures.

5.8 Closure Report

Within 60 days of completion of closure activities at TA-54, Area G, building 1028 and TA-16, WETF, Rooms 116 and 122, a report will be prepared and submitted to the Department in accordance with Permit Section 9.5.

6.0 REFERENCES

LANL, 2010. *Los Alamos National Laboratory Waste Acceptance Criteria,* P409-1, Los Alamos National Laboratory, Los Alamos, New Mexico, September 2010.

NMED, 2010. *Los Alamos National Laboratory Hazardous Waste Facility Permit*, New Mexico Environment Department, Santa Fe, New Mexico.

EPA, 1986 (and all approved updates). *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*, EPA-SW-846, U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response, U.S. Government Printing Office, Washington, DC.

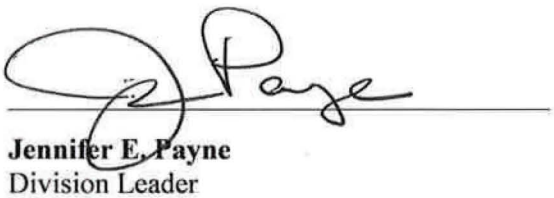
EPA, 2019. National Emission Standards for Hazardous Air Pollutants (NESHAP), 40 CFR Part 61, Subparts A and H, Standards for Emissions of Radionuclides Other Than Radon from Department of Energy Facilities, May 22, 2019 (http://permalink.lanl.gov/object/tr?what=info:lanl-repo/eprr/ESHID-603413).

NIOSH, 1994. The National Institute for Occupational Health and Safety (NIOSH) *Manual of Analytical Methods*, 4th ed. Issue 1. 1994.

LANL, 2019. Application for Pre-Construction Approval under 40 CFR 61 Subparts A and H for Venting of Flanged Tritium Waste Containers (FTWCs) at TA-54, May 16, 2019 (http://permalink.lanl.gov/object/tr?what=info:lanl-repo/eprr/ESHID-603412).

7.0 CERTIFICATION

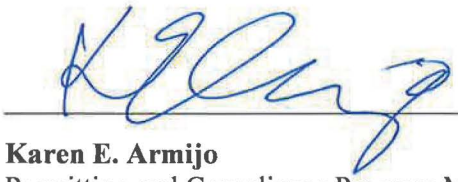
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.



5 March 2020

Jennifer E. Payne
Division Leader
Environmental Protection & Compliance Division
Triad National Security, LLC

Date Signed



06 March 2020

Karen E. Armijo
Permitting and Compliance Program Manager
National Nuclear Security Administration
U.S. Department of Energy

Date Signed

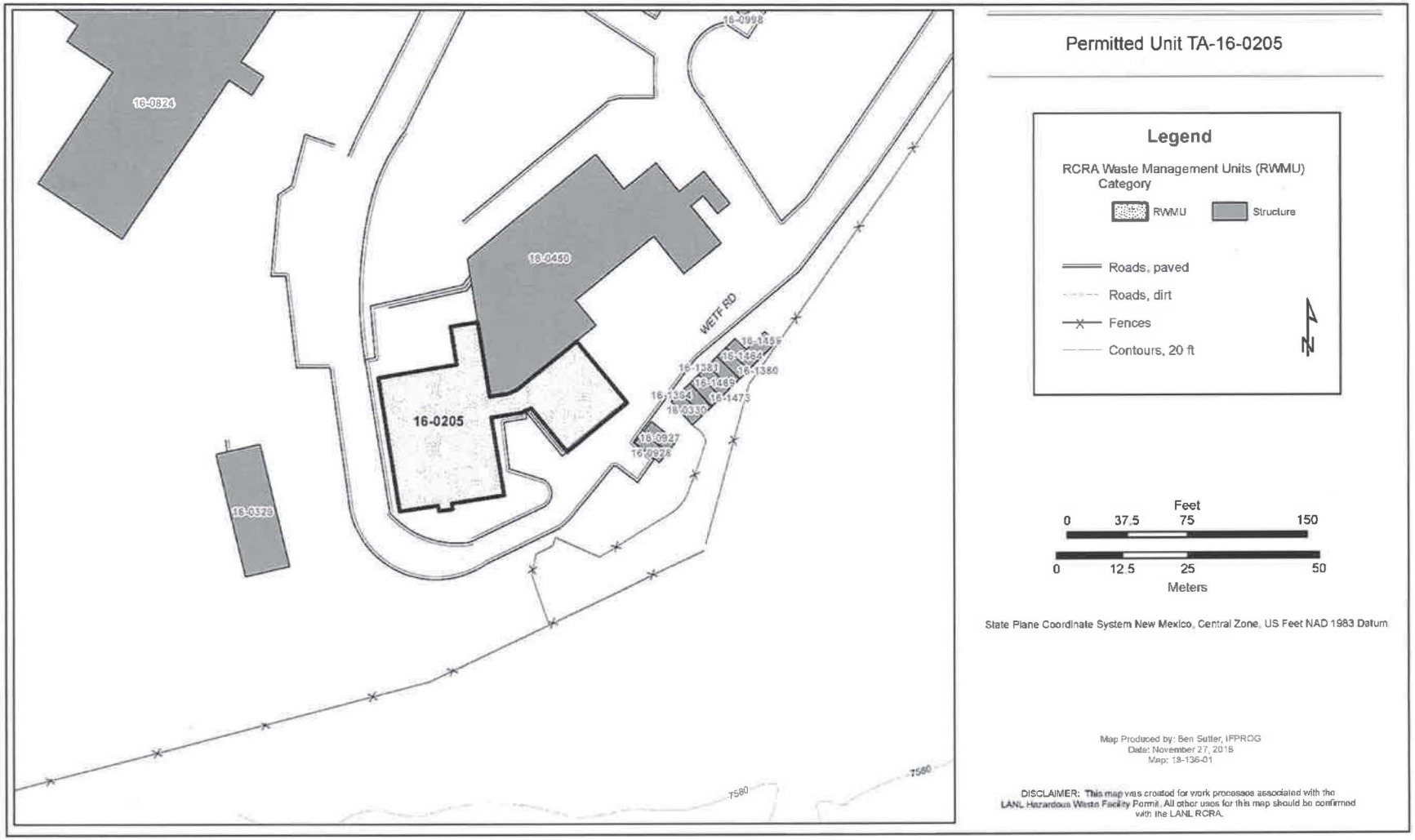


Figure 2-1 TA-16, Building 205, Project Location

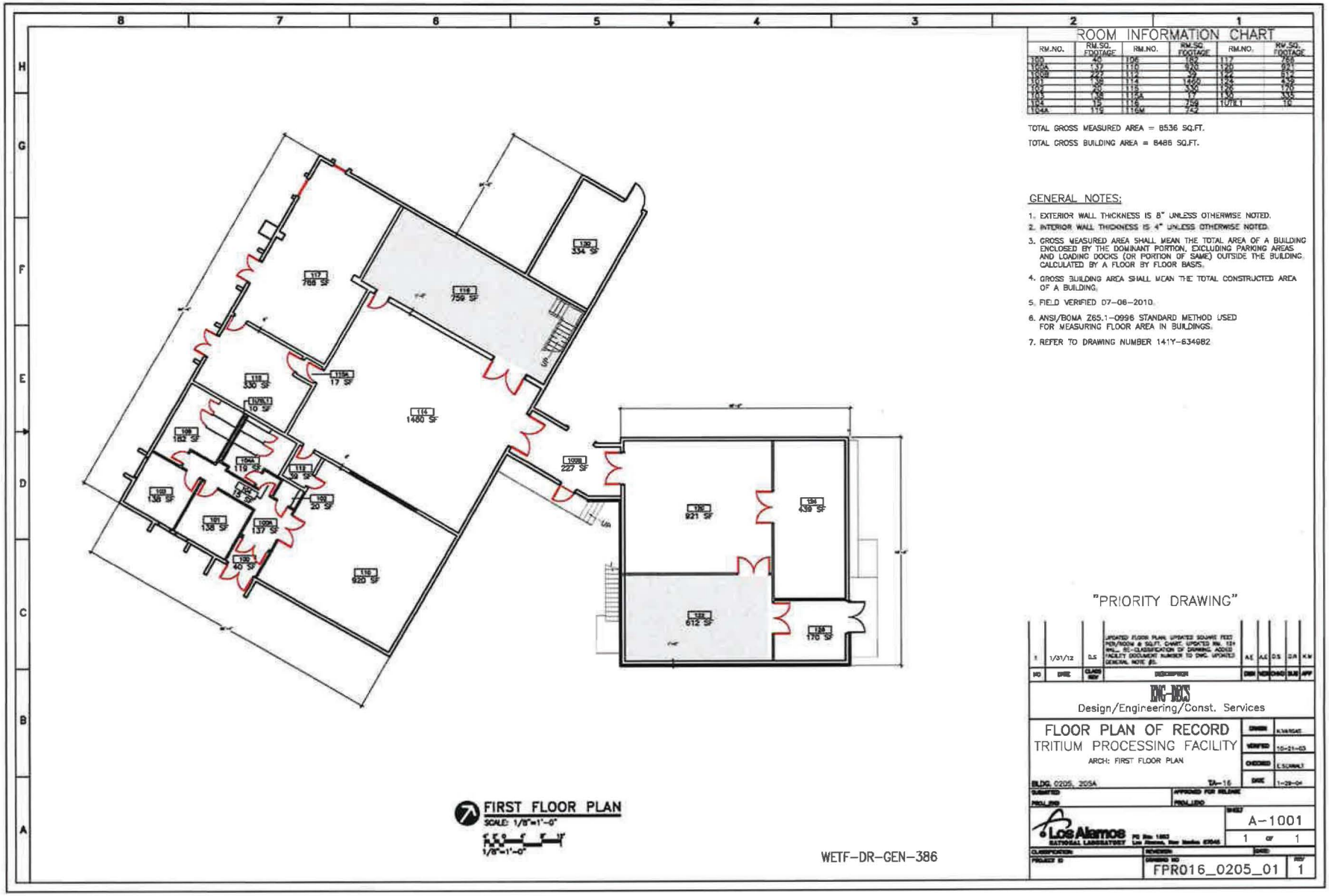


Figure 2-2 - TA-16-205, Rooms 116 and 122

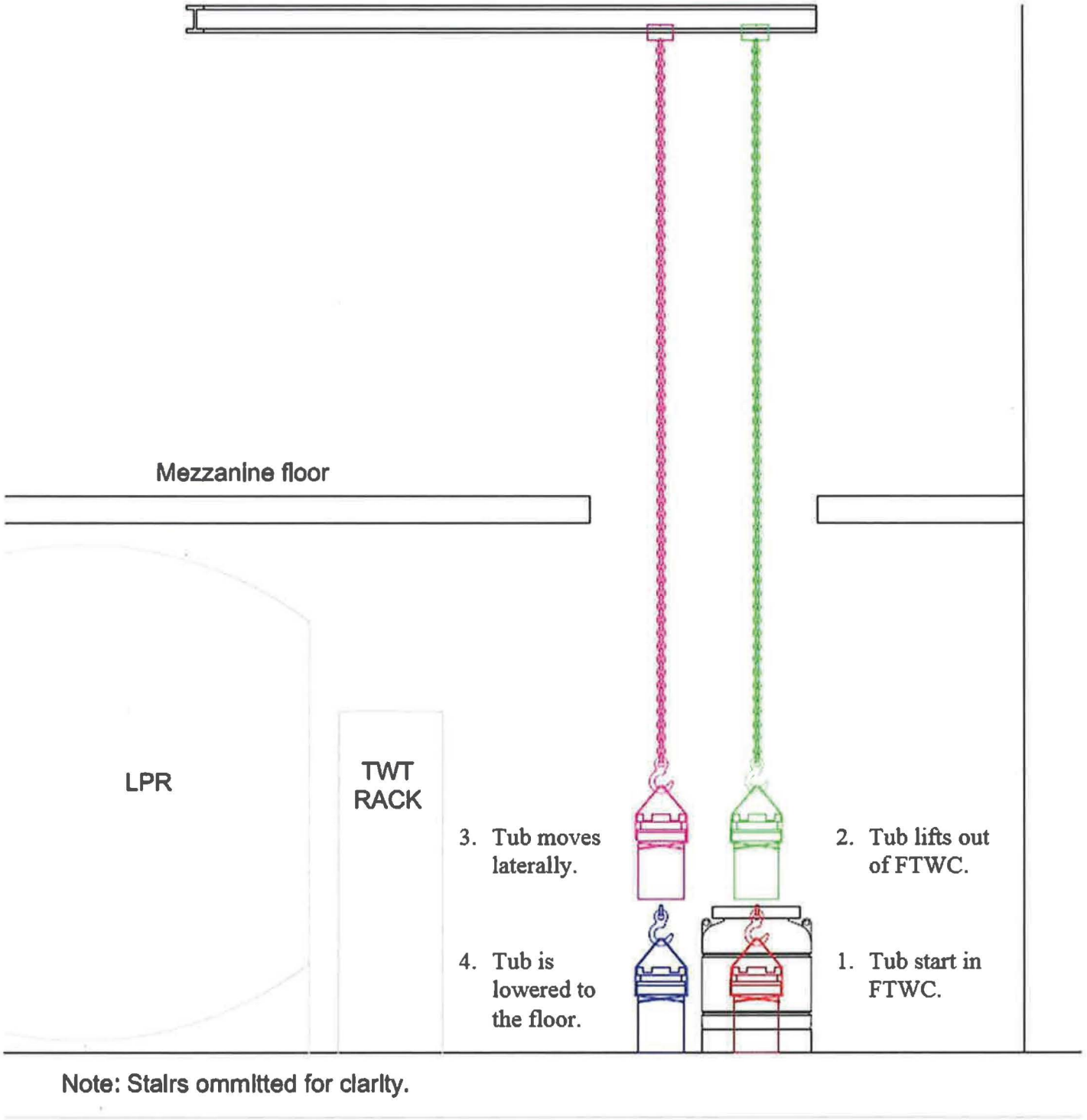


Figure 2-3 TA-16, Room 116 FTWCs Removal from Overpack

ENCLOSURE 2

Draft Public Notice

EPC-DO: 20-074

LA-UR-20-22103

Date: MAR 0 9 2020

Resubmittal of Temporary Authorization Request for Waste Treatment, Storage, and Repackaging, Los Alamos National Laboratory Hazardous Waste Facility Permit March 2020

EPA ID No. NM0890010515

The Department of Energy (DOE) and Triad National Security, LLC (Triad) have resubmitted a temporary authorization request to the New Mexico Environment Department-Hazardous Waste Bureau (NMED-HWB) for the Los Alamos National Laboratory (LANL) Hazardous Waste Facility Permit (the Permit). The Permit authorizes the DOE, Triad, and Newport News Nuclear BWXT-Los Alamos, LLC (N3B) to manage, store, and treat hazardous waste at LANL. The temporary authorization request supports a one-time, short-term treatment, storage, repackaging sort and segregation campaign of mixed hazardous waste at LANL, is intended to make the waste amenable for disposal at an off-site facility.

This temporary authorization request will support the processing (venting, sorting, segregation, and repackaging) of four Flanged Tritium Waste Containers (FTWCs) as necessary to meet DOT requirements. The four FTWCs must be mitigated prior to transport to TA-16 by venting. The Weapons Engineering Tritium Facility (WETF) at TA-16 is not in a permitted unit, but the only facility equipped to process tritium contaminated material, and has the necessary safety and environmental controls for treatment, sorting and storage. The requested temporary authorization will allow these activities to be performed in an appropriate location so that the FTWCs can be safely processed and shipped to an off-site facility. Resubmittal of this permit modification request provides additional pressure mitigation activity locations and provides an opportunity to address comments received from the NMED-HWB. Approval of this request will support efforts to reduce the Site Treatment Plan (STP) waste inventory, and enable shipment of these wastes. If DOE/Triad are unable to perform this activity, there will be no alternative but to continue to safely store these four FTWCs at TA-54, Area G as STP inventory under the Federal Facility Compliance Order.

The official permit is located on the NMED-HWB webpage at: https://www.env.nm.gov/hazardous-waste/lanl-permit/. The permit modification submittal is located in the LANL Electronic Public Reading Room (http://eprr.lanl.gov) and the Hardcopy Public Reading Room located in Pojoaque at:

Northern New Mexico Citizens' Advisory Board Office
94 Cities of Gold Road
Santa Fe, NM 87506

If you have any questions regarding this temporary authorization request, please contact Patrick Padilla at (505) 667-3932 or plpadilla@lanl.gov if additional information would be helpful.

LA-UR-20-22103

Waste Management Programs
P.O. Box 1663, Mail Stop K404
Los Alamos, NM 87545

LA-UR-20-22103

Los Alamos
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Associate Laboratory Directorate for Environment, Safety, Health, & Quality
Los Alamos National Laboratory
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National Nuclear Security Administration
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505-667-5794/Fax 505-606-5948

Date: April 4, 2025
LA-UR -25-21806

Mr. JohnDavid Nance, Chief
Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505-6313

Subject: Notification of Planned Start of a Temporary Authorization Request Waste Management Activity, Los Alamos National Laboratory, Hazardous Waste Facility Permit, EPA ID# NM0890010515

Dear Mr. Nance:

The United States Department of Energy and its field offices, the National Nuclear Security Administration Los Alamos Field Office (NA-LA) and the Office of Environmental Management Los Alamos Field Office, in association with Triad National Security, LLC (Triad) and Newport News Nuclear BWXT-Los Alamos, LLC, collectively the Permittees, submit this letter to notify the New Mexico Environment Department-Hazardous Waste Bureau (NMED-HWB) of a planned start date for activities described in a Temporary Authorization Request to the Los Alamos National Laboratory, Hazardous Waste Facility Permit (the Permit).

In 2019, NA-LA and Triad prepared a request in accordance with Title 40 of the Code of Federal Regulations §270.42(e)(3) and submitted to the NMED-HWB June 18, 2019. A revised request, *Withdrawal and Resubmittal of a Temporary Authorization Request for Waste Treatment, Storage, and Repackaging, Los Alamos National Laboratory Hazardous Waste Facility Permit, EPA ID# NM0890010515*, was submitted March 9, 2020 (EPC-DO: 20-074, https://srorlgreen.lanl.gov/object/tr?what=info:lanl-repo/eprr/ESHID-603576) to provide additional pressure mitigation activity locations and address comments received from the NMED-HWB. The operation was originally planned to commence in April 2020, but was delayed by the COVID-19 pandemic and the formal readiness and authorization process that is an important part of the program to ensure safe operations.

The Permittees now plan to start pressure mitigation activities in June 2025 and are seeking official temporary authorization approval from NMED for activities to begin on or shortly after June 2, 2025. Enclosed is a letter providing written confirmation from the United States Environmental Protection

Agency (EPA) that no further action is required prior to proceeding with startup for these activities pursuant to EPA's National Emission Standards for Hazardous Air Pollutants (NESHAP), 40 CFR Part 61, Subparts A and H, Standards for Emissions of Radionuclides Other Than Radon From Department of Energy Facilities. Concurrently, we are sending similar notifications to the EPA of this planned start date.

If you have questions or comments regarding this submittal, please contact Luciana Vigil-Holterman (Triad) at (505) 665-3435 or by email at luciana@lanl.gov or Robert Gallegos (NA-LA) at (208) 569-0377 or by email at robert.gallegos@nnsa.doe.gov.

Sincerely,

JEANNETTE HYATT (Affiliate) Digitally signed by JEANNETTE HYATT (Affiliate) Date: 2025.04.01 10:29:29 -06'00'

Jeannette Hyatt
Senior Director
Environment and Waste Programs
Triad National Security, LLC

Sincerely,

ROBERT GALLEGOS Digitally signed by ROBERT GALLEGOS Date: 2025.04.03 16:03:23 -06'00'

Robert A. Gallegos
Program Manager
Environmental Permitting and Compliance
U.S. Department of Energy
National Nuclear Security Administration
Los Alamos Field Office

JH/RAG/AMM

Enclosure: Status Update for the Flanged Tritium Waste Container Project at LANL TA-54

Copy: Laurie King, USEPA/Region 6, Dallas, TX, king.laurie@epa.gov
Rick Shean, NMED-HWB, Santa Fe, NM, rick.shean@env.nm.gov
JohnDavid Nance, NMED-HWB, Santa Fe, NM, jd.nance@env.nm.gov
Neelam Dhawan, NMED-HWB, Santa Fe, NM, neelam.dhawan@env.nm.gov
Siona Briley, NMED-HWB, Santa Fe, NM, siona.briley@env.nm.gov
Theodore A. Wyka, NA-LA, theodore.wyka@nnsa.doe.gov
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Jessica L. Moseley, Triad, EPC-WMP, jmoseley@lanl.gov
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COPY

Received
APR 4 2025
NMED Hazardous Waste Bureau

Los Alamos
NATIONAL LABORATORY
Associate Laboratory Directorate for Environment, Safety, Health, & Quality
Los Alamos National Laboratory
P.O. Box 1663, MS M325
Los Alamos, NM 87545
505-667-4218

National Nuclear Security Administration
Los Alamos Field Office
3747 West Jemez Road, A316
Los Alamos, NM 87544
505-667-5794/Fax 505-606-5948

Date: April 4, 2025
LA-UR -25-21806

Mr. JohnDavid Nance, Chief
Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505-6313

Subject: Notification of Planned Start of a Temporary Authorization Request Waste Management Activity, Los Alamos National Laboratory, Hazardous Waste Facility Permit, EPA ID# NM0890010515

Dear Mr. Nance:

The United States Department of Energy and its field offices, the National Nuclear Security Administration Los Alamos Field Office (NA-LA) and the Office of Environmental Management Los Alamos Field Office, in association with Triad National Security, LLC (Triad) and Newport News Nuclear BWXT-Los Alamos, LLC, collectively the Permittees, submit this letter to notify the New Mexico Environment Department-Hazardous Waste Bureau (NMED-HWB) of a planned start date for activities described in a Temporary Authorization Request to the Los Alamos National Laboratory, Hazardous Waste Facility Permit (the Permit).

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The Permittees now plan to start pressure mitigation activities in June 2025 and are seeking official temporary authorization approval from NMED for activities to begin on or shortly after June 2, 2025. Enclosed is a letter providing written confirmation from the United States Environmental Protection

ENCLOSURE

Status Update for the Flanged Tritium Waste Container Project at LANL TA-54

Date: April 4, 2025

U.S. Department of Energy,
National Nuclear Security Administration Los Alamos Field Office, and
Triad National Security, LLC

REGION 6
DALLAS, TX 75270

March 18, 2025

Theodore A. Wyka
Manager, Los Alamos Field Office National Nuclear Security Administration
U.S. Department of Energy Los Alamos Field Office
3747 West Jemez Road – MS A316
Los Alamos, NM 87544

Re: Status Update for the Flanged Tritium Waste Container Project at LANL TA-54

Dear Mr. Wyka:

Thank you for your status update letter dated February 10, 2025, to the U.S. Environmental Protection Agency (EPA), informing EPA Region 6 of the U.S. Department of Energy's (DOE) intent to move forward with the Flanged Tritium Waste Containers (FTWC) remediation project at Los Alamos National Laboratory (LANL).

In letters dated September 25, 2018, May 22, 2019, and August 10, 2020, EPA informed DOE its application for construction for the FTWC project was approved pursuant to EPA's National Emission Standards for Hazardous Air Pollutants (NESHAP), 40 CFR Part 61, Subparts A and H, Standards for Emissions of Radionuclides Other Than Radon From Department of Energy Facilities. Pursuant to your request, this letter serves as written confirmation that no further action from EPA is required prior to proceeding with startup notifications.

We appreciate you and your staff meeting in person with Regional Administrator Scott Mason IV, EPA staff and me on March 6, 2025, to further discuss the project. We look forward to our continued partnership with the DOE on our common goals to support the mission of Los Alamos National Laboratory and protect public health. Should you have any questions concerning the substance of this letter you may contact Michael Feldman at (214) 665-9793, or George Brozowski at (214) 665-8541.

Sincerely,

JAMES MCDONALD

Digitally signed by JAMES MCDONALD
Date: 2025.03.18 09:35:26 -05'00'

James McDonald
Director
Air and Radiation Division

Exhibit B

McDonald, Director, Air Radiation Division, EPA Region 6, Letter to Wyka, Manager, Los Alamos Field Office National Nuclear Security Administration (March 18, 2025)

Coleman, Associate Laboratory Director, Environment, Safety, Health and Quality, Triad, *et al*., Letter to Brozowski, Regional Health Physicist, EPA Region 6 (February 6, 2025)

Garcia, Director, Air and Radiation Division, EPA Region 6, Letter to Armijo, Acting Assistant Manager, Mission Assurance & Infrastructure, Permitting and Compliance Program Manager, NNSA (August 10, 2020).

Donaldson, Associate Director, State Planning & Implementation Branch, EPA Region 6, Letter to Maggiore, Assistant Manager, Office of Environmental Projects, DOE NNSA (May 22, 2019)

REGION 6
DALLAS, TX 75270

March 18, 2025

Theodore A. Wyka
Manager, Los Alamos Field Office National Nuclear Security Administration
U.S. Department of Energy Los Alamos Field Office
3747 West Jemez Road – MS A316
Los Alamos, NM 87544

Re: Status Update for the Flanged Tritium Waste Container Project at LANL TA-54

Dear Mr. Wyka:

Thank you for your status update letter dated February 10, 2025, to the U.S. Environmental Protection Agency (EPA), informing EPA Region 6 of the U.S. Department of Energy's (DOE) intent to move forward with the Flanged Tritium Waste Containers (FTWC) remediation project at Los Alamos National Laboratory (LANL).

In letters dated September 25, 2018, May 22, 2019, and August 10, 2020, EPA informed DOE its application for construction for the FTWC project was approved pursuant to EPA's National Emission Standards for Hazardous Air Pollutants (NESHAP), 40 CFR Part 61, Subparts A and H, Standards for Emissions of Radionuclides Other Than Radon From Department of Energy Facilities. Pursuant to your request, this letter serves as written confirmation that no further action from EPA is required prior to proceeding with startup notifications.

We appreciate you and your staff meeting in person with Regional Administrator Scott Mason IV, EPA staff and me on March 6, 2025, to further discuss the project. We look forward to our continued partnership with the DOE on our common goals to support the mission of Los Alamos National Laboratory and protect public health. Should you have any questions concerning the substance of this letter you may contact Michael Feldman at (214) 665-9793, or George Brozowski at (214) 665-8541.

Sincerely,

JAMES MCDONALD

Digitally signed by JAMES MCDONALD
Date: 2025.03.18 09:35:26 -05'00'

James McDonald
Director
Air and Radiation Division

Los Alamos National Laboratory
P.O. Box 1663, MS M325
Los Alamos, NM 87545
505-667-4218

Associate Laboratory Directorate for Environment, Safety, Health, & Quality

Symbol: ALDESHQ-25-008
LA-UR: 25-21205
Date: February 6, 2025

Mr. George Brozowski
Regional Health Physicist
U. S. Environmental Protection Agency, Region 6
1201 Elm Street, Suite 500
Mail Code: AR
Dallas, TX 75270

Subject: Status Update for the Flanged Tritium Waste Container Project at LANL TA-54

Dear Mr. Brozowski:

In 2025, Los Alamos National Laboratory (LANL or the Laboratory) intends to proceed with pressure mitigation for the four Flanged Tritium Waste Containers (FTWCs) which are currently in storage at Technical Area 54 Area G.

In support of this project, in May 2019, the Laboratory transmitted an Application for Pre-Construction Approval under 40 CFR 61 Subparts A and H for Venting of Flanged Tritium Waste Containers (FTWCs) at TA-54. EPA Region 6 approved the Application in May 2019. In March 2020, the Laboratory submitted a modification to the operating scope, which was approved by the Region in August 2020 (combined, these approvals are the approved Application).

In addition, in March 2020 and August 2020, the Laboratory provided Region 6 with Notification of Planned Startup. Through 2021 and 2023, the Region, DOE, and the Laboratory addressed the need for additional project information and technical responses. The Laboratory provided supplemental information and supported additional public and tribal outreach about the project in coordination with EPA's recommendations.

As described in the approved Application and in subsequent communications, the FTWC remediation project can be conducted safely and within all regulatory compliance limits. LANL has developed an emissions management plan which describes the steps that will be taken to track emissions, calculate public dose consequence, and ensure overall radionuclide air emissions from the FTWC project will remain within regulatory limits. The Laboratory understands that it has addressed all the Region's outstanding questions concerning the project and does not view it as appropriate to submit for reapplication.

With this letter, the Laboratory is informing EPA Region 6 of its intent to move forward with the FTWC remediation project described in the approved Application, commencing operations in 2025. The Laboratory intends to proceed with normal startup notifications, as required under 40 CFR 61.09. As described in our prior communications, the Laboratory will also continue its outreach with nearby communities and tribal nations, including notifying them prior to startup of FTWC operations.

Considering the communications surrounding this project since 2021, the Laboratory respectfully requests the Region's written confirmation within 30 days that no further action is required prior to proceeding with startup notifications.

Please contact David Fuehne of LANL's Environmental Compliance Programs Group by email at davef@lanl.gov or (505) 699-5619 if you have any questions.

Sincerely,

STEVEN A. COLEMAN (Affiliate)
Digitally signed by STEVEN A. COLEMAN (Affiliate)
Date: 2025.02.06 15:32:24 -07'00'

Steven A. Coleman
Associate Laboratory Director
Environment, Safety, Health, and Quality
Triad National Security, LLC
Los Alamos National Laboratory

Sincerely,

THEODORE WYKA
Digitally signed by THEODORE WYKA
Date: 2025.02.10 15:55:28 -07'00'

Theodore A. Wyka
Manager, Los Alamos Field Office
National Nuclear Security Administration
U.S. Department of Energy
Los Alamos Field Office

Copy: George P. Brozowski, USEPA Region 6, brozowski.george@epa.gov
Theodore A. Wyka, NA-LA, theodore.wyka@nnsa.doe.gov
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Katherine J. W. Higgins, Triad/EPC-DO, kwurden@lanl.gov
Sarah S. Holcomb, Triad/EPC-CP, sholcomb@lanl.gov
David P. Fuehne, Triad/EPC-CP, davef@lanl.gov
Rebecca R. Lattin, Triad/EPC-CP, rlattin@lanl.gov
Kris M. Hyatt, Triad/EPC-CP, kris@lanl.gov
Jessica L. Moseley, Triad/EPC-WMP, jmoseley@lanl.gov
Luciana R. Vigil-Holterman, Triad/EPC-WMP, luciana@lanl.gov

Angela M. Edwards, Triad/EPC-WMP, angmtz@lanl.gov
Gregory B. Juerling, Triad/PCIP-DO, juerling@lanl.gov
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Siona L. Briley, NMED, siona.briley@env.nm.gov
Neelam M. Dhawan, NMED, neelam.dhawan@env.nm.gov
Records Center, NA-LA
Official Contract File, NA-LA
epccorrespondence@lanl.gov
eshq-dcrm@lanl.gov
aldeshqcorrespondence@lanl.gov

References:

1. LA-UR-18-26283 rev.2, "Application for Pre-Construction Approval under 40 CFR 61 Subparts A and H for Venting of Flanged Tritium Waste Containers (FTWCs) at TA-54." Transmitted to EPA Region 6 as part of letter EPC-DO-19-137, May 17, 2019. EPA approval received May 22, 2019. Hyperlink: https://permalink.lanl.gov/object/tr?what=info:lanl-repo/eprr/ESHID-603412
2. LA-UR-20-2214, "Notification of Operational Scope Change for the FTWC Venting Project at Los Alamos National Laboratory (LANL)." Transmitted to EPA Region 6 as part of letter EPC-DO-20-068, March 05, 2020. EPA approval received August 10, 2020. Hyperlink: https://permalink.lanl.gov/object/tr?what=info:lanl-repo/eprr/ESHID-603581
3. FTWC Information Web Site https://www.lanl.gov/science-engineering/environment/resources/ftwc

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1201 ELM STREET, SUITE 500
DALLAS, TEXAS 75270

August 10, 2020

Karen E. Armijo
Acting Assistant Manager, Mission Assurance & Infrastructure
Permitting and Compliance Program Manager
National Nuclear Security Administration
Los Alamos Field Office
3747 West Jemez Road, MS A316
Los Alamos, NM 87544
Los Alamos, NM 87544

Re: National Emission Standards for Hazardous Air Pollutants (NESHAP), 40 CFR Part 61, Subparts A and H, Standards for Emissions of Radionuclides Other Than Radon From Department of Energy Facilities

Dear Ms. Armijo:

The U.S. Environmental Protection Agency (EPA), Region 6 is in receipt of the U.S. Department of Energy's application for approval of construction or modification, dated August 8, 2018, along with updates dated May 15, 2019, and March 5, 2020, associated with the proposed venting of headspace gas from four (4) Flanged Tritium Waste Containers (FTWCs) currently stored at the Los Alamos National Laboratory (LANL), Technical Area-54, Area G, Building 1028. The application was submitted as required by 40 CFR 61.07 and 40 CFR 61.96(a) of the National Emission Standards for Emissions of Radionuclides Other than Radon From Department of Energy Facilities (Radionuclide NESHAP), promulgated under Section 112 of the Clean Air Act. 42 U.S.C. § 7412.

Pursuant to 40 CFR 61.08(b), the application and additional information has been reviewed by the EPA Region 6 Health Physicist, Mr. George Brozowski, to determine whether emissions of radionuclides from LANL including the proposed venting project will comply with the Radionuclide NESHAP standard, if properly operated. Emissions of radionuclides to the ambient air from the Department of Energy facilities shall not exceed those amounts that would cause any member of the public to receive in any year an effective dose equivalent of 10 mrem/yr. See 40 CFR 61.92. Mr. Brozowski also met with LANL representatives while on-site on February 2-4, 2020, to participate in a mock demonstration of the upcoming venting operations.

Based on our review of the above-referenced information, EPA Region 6 has determined that the proposed operation will not cause emissions in violation of the emission standard set forth in the Radionuclide NESHAP if properly operated as described in the application and subsequent updates, and, therefore your application for construction is approved.

This letter serves as written approval of your application. The conditions of the approval include:

1. This approval is effective on the date of this letter.

2. Any change in the information submitted in support of this approved application, shall be provided in writing to EPA Region 6 within 30 days after the change.

3. Any revision to the plans and specifications of this approved application, which may affect the emissions of radionuclides to the outside air from the new construction, shall require prior written approval by EPA Region 6.

4. No condition presented herein precludes the applicant from compliance with additional or more stringent conditions or requirements of any other Federal, State, or local approval or permit.

5. Failure to comply with the conditions of this approval may result in revocation of the approval and/or enforcement action by EPA.

This approval does not relieve the applicant of the legal responsibility to comply with the Radionuclide NESHAP, all other applicable requirements of 40 CFR Part 61, and with any other applicable provisions of Federal, State, or local law and regulations. Further, this approval does not limit any action which the EPA could take to implement or enforce air pollution requirements, including measures necessary to protect public health or welfare, or the environment from imminent and substantial endangerment under Section 303 of the Clean Air Act. 42 U.S.C. § 7603.

Should you have any questions concerning the substance of this letter and approval, you may contact George P. Brozowski at (214) 665-8541.

Sincerely yours,

X

David F. Garcia, P.E.

Director
Air and Radiation Division

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TEXAS 75202 – 2733

MAY 2 2 2019

Mr. Peter Maggiore
Assistant Manager
Office of Environmental Projects
U. S. Department of Energy
National Nuclear Security Administration
Los Alamos Field Office
Los Alamos, NM 87544

Re: National Emission Standards for Hazardous Air Pollutants (NESHAP), 40 CFR Part 61, Subparts A and H, Standards for Emissions of Radionuclides Other Than Radon from Department of Energy Facilities

Dear Mr. Maggiore:

The Environmental Protection Agency (EPA) Region 6 is in receipt of the May 17, 2019 application for approval for the Venting of Flanged Tritium Waste Containers (FTWCs) at Technical Area-54 (TA-54). This approval is addressing the venting the headspace gas of four containers (FTWCs), located at the Los Alamos National Laboratory (LANL) TA-54 Area G, Building 1028.

The Region's Health Physicist, Mr. George Brozowski, has completed his review of the application pursuant to 40 CFR 61.07 Subpart H (National Emission Standards for Emissions of Radionuclides Other than Radon from Department of Energy Facilities). George also met with Mr. David Fuehne, CHP while on-site on Monday August 13, 2018, conducted a visual inspection of Area G Building 1028 and has concluded that your application is acceptable as submitted.

Based on the foregoing, EPA finds that in accordance with 40 CFR 60.8 these changes will not cause emissions in violation of the standard if operated properly and, therefore your application for construction is approved.

This letter serves as written approval of your application. The conditions of the approval include:

1. This approval is effective on the date of this letter.

2. This approval shall expire 180 calendar days after its effective date unless construction has commenced within that time frame.

3. Any change in the information of this approved Application, shall be provided in writing to EPA Region 6 within 30 days after the change.

4. Any revision to the plans and specifications of this approved Application, which may affect the radiation emissions to the outside air from the new construction, shall require prior written approval by Region 6 of EPA.

5. No condition presented herein precludes the Applicant from compliance with additional or more stringent conditions or requirements of any other Federal, State, or local approval or permit.

6. Failure to comply with the conditions of this approval may result in revocation of the approval and/or enforcement action by EPA.

This approval does not relieve the Applicant of the legal responsibility to comply with the NESHAPs standards for radionuclide emissions, with all other applicable requirements of 40 CFR Part 61, and with any other applicable provisions of Federal, State, or local law and regulations. Further, this approval does not limit any action which the EPA could take to implement or enforce air pollution requirements, including measures necessary to protect public health or welfare, or the environment from imminent and substantial endangerment under Section 303 of the Clean Air Act, as amended (42 U.S.C. 7603 et seq.).

Should you have any questions concerning the substance of this letter and approval, you may contact George P. Brozowski at (214) 665-8541.

Sincerely yours,

By R Donaldson

Guy R. Donaldson
Associate Director, State Planning & Implementation Branch

Exhibit C

Kenney, Cabinet Secretary, NMED, Letter to Wyka, National Nuclear Security Administration, *et al*. (June 9, 2025)

VIA ELECTRONIC DELIVERY
AND CERTIFIED MAIL

June 9, 2025

Theodore Wyka, Manager
National Security Administration
Los Alamos National Laboratory
3747 West Jemez Road, A 316
Los Alamos, New Mexico 87544

Steven Coleman, Associate Director
Triad National Security, LLC
Los Alamos Field Office
1200 Trinity Drive, Suite 400
Los Alamos, New Mexico 87545

RE: TEMPORARY AUTHORIZATION
HAZARDOUS WASTE FACILITY PERMIT
LOS ALAMOS NATIONAL LABORATORY
EPA ID#NM0890010515
HWB-LANL-19-033

Dear Mr. Wyka and Mr. Coleman:

On April 4, 2025, the New Mexico Environment Department (NMED) received the United States Department of Energy (DOE) and its field office, the National Nuclear Security Administration Los Alamos Field Office (NA-LA) in association with Triad National Security, LLC (Triad), (collectively referred to as the Permittees) *Notification of Planned Start of a Temporary Authorization Request Waste Management Activity* (Notification) referenced LA-UR-25-21806.

While NMED understands that a technical solution is necessary for the protection of public health and the environment and given significant public interest in this matter, NMED is requiring the Permittees to perform additional steps, as described in this letter, prior to making a final decision regarding the requested temporary authorization.

Background:

On June 18, 2019, the Permittees submitted the *Temporary Authorization Request for Waste Treatment, Storage, and Repacking, Los Alamos Hazardous Waste Facility Permit* (Request) referenced by EPC-DO-19-0176/LA-UR-19-24513. On July 11, 2019, NMED determined that the Request was administratively complete. On March 9, 2020, the Permittees submitted *Withdrawal and Resubmittal of a Temporary Authorization Request for Waste Treatment, Storage, and Repackaging* (Resubmittal).

The Permittees submitted the Request for the temporary authorization to treat, store, and repackage four containers at Technical Area (TA) 54, Area G, Pad 5, building 1028 and TA-16, building 205, Rooms 116 and 122. These four flanged tritium waste containers (FTWCs) were packaged at the Weapons Engineering Treatment Facility (WETF) in 2007 and sent to TA-54 for onsite disposal. During a subsequent audit, DOE determined that these containers could not be disposed of at TA-54 because they contain lead squibs that change the waste designation to low level mixed waste containers subject

to RCRA regulations. The four FTWC containers do not meet U.S. Department of Transportation requirements under 49 CFR part 173 and cannot be transported to an off-site facility due to the potential explosive hazard caused by the pressurized conditions that can result from the radiolysis of tritiated water. To be able to transport the FTWC containers, pressure mitigation must be performed by releasing the pressure from the FTWCs, sampling, and capturing all radioactive gas at TA-54. Following this process, DOE will relocate the containers to TA-16 for additional storage, controlled depressurization, sorting, and then repackaging for final disposal.

Temporary Authorization Prerequisites:

While NMED finds that the Permittees request is consistent with the applicable requirements of 40 CFR §270.42(e), which allows for NMED to consider granting approval of the temporary authorization of a Class 2 modification meeting the criteria in §270.42(e)(3)(ii), there is significant public interest in this matter. Therefore, NMED will not act on the temporary authorization request until the following criteria are successfully met by the Permittees:

1. Independent Technical Review. The Permittees shall obtain an independent, third-party technical review for alternative options for the depressurization of the FTWCs. The independent, third-party technical review report shall be provided to the U.S. Environmental Protection Agency (EPA) Region 6 and the NMED. Such a report shall be a matter of public record and made available to the public on the Permittees website.

2. Public Meeting. The Permittees shall host a public meeting for interested stakeholders. The meeting must include a review of the independent, third-party technical review for alternative options; the preferred treatment process; and a discussion of the safety mechanisms and contingencies that will be utilized to ensure the protection of human health and the environment during operations. The public meeting must provide an opportunity for the public to ask questions and receive answers or to provide comments for the consideration by the Permittees. The Permittees shall provide at least seven (7) business days of public notice prior to hosting the public meeting and shall provide reasonable accommodation for meaningful participation.

3. Tribal Consultation. The Permittees shall host a tribal consultation with interested tribal governments related to the independent, third-party technical review for alternative options; the preferred treatment process; and a discussion of the safety mechanisms and contingencies that will be utilized to ensure the protection of human health, environment, and cultural practices. This is in addition to any tribal consultation conducted by the NMED.

4. Compliance Audit. The Permittees shall retain an independent third-party auditor to conduct a hazardous waste compliance audit of its operations. The independent, third-party auditor review report shall be provided to NMED. Such a report shall be a matter of public record and made available to the public on the Permittees website.

Upon completion of the criteria listed above, the Permittees may submit a revised request for temporary authorization to NMED for consideration. NMED will reconsider the revised request for

temporary authorization at that time. The revised request for a temporary authorization shall include the following certification signed by a responsible official representing DOE, NNSA, and Triad (or any other contractor):

> *"I certify under penalty of law that the temporary authorization and all attachments were prepared under my direction or supervision according to a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."*

In closing, the historical gross mismanagement of these waste streams by DOE and NNSA have placed NMED in an untenable situation. Now, the risk of inaction poses a far greater threat than a technical solution, but no technical solution is free from risk. Your disregard of state laws and rules governing these wastes for almost 20 years greatly exacerbated this situation and put New Mexicans, tribal communities, and our environment at risk. Given your failure to comply with New Mexico Hazardous Waste Act and its regulations codified at 20.4.1 of the New Mexico Administrative Code, you are hereby notified that NMED is separately commencing a civil enforcement action pursuant to this matter.

If you have any questions regarding this letter, please contact JohnDavid Nance of my staff at (505) 629-6764 or via email at jd.nance@env.nm.gov.

Sincerely,

James C. Kenney
Cabinet Secretary

CC:

Scott Mason, Regional Administrator, U.S. EPA Region 6
Josett Monette, Cabinet Secretary, New Mexico Department of Indian Affairs
Chistopher Moquino, Chairman, Eight Northen Indian Pueblos Council, Governor, San Ildefonso Pueblo
James Mountain, Chairman, All Pueblo Council of Governors
JohnDavid Nance, Chief, Hazardous Waste Bureau, NMED

Exhibit D

CLOSE

Temporary Authorization Request to Treat Four Flanged Tritium Waste Containers

Hazardous Waste Bureau Home
For Hazardous Waste Generators and Handlers
Guidance Documents
Hazardous Waste Regulation and Authorization
Permitted Facilities
Recycling and Hazardous Waste Management Resources

The New Mexico Environment Department (NMED) Hazardous Waste Bureau (HWB) is issuing an approval allowing Los Alamos National Laboratory (LANL) to treat four (4) pressurized gas containers, also known as flanged tritium waste container (FTWCs). The FTWCs were packaged in 2007, lead waste was also packaged with tritium, making the containers a mixture of hazardous waste and radioactive waste. The FTWCs are a pressurized gas hazard due to the breakdown of tritium over many years, preventing the four containers from being repackaged and transported off site, requiring onsite treatment.

The temporary authorization will allow LANL to first depressurize the containers at technical area (TA) 54, then move the containers to technical area (TA) 16, where the waste will be treated, then shipped to a final disposal site. LANL plans to perform the depressurization of one container at a time and is estimating 3-4 days to depressurize each container. The treatment will include depressurization and the capture of released gas. The entire depressurization operation will be monitored by both LANL and the EPA. Following depressurization of all four (4) containers at TA-54, the containers will be transported and temporarily stored at the weapons engineering tritium facility (WETF) at TA 16. At WETF, the containers will be repackaged, and the lead component will be separated from the FTWCs containers. The lead portion of the waste will be characterized and then the container(s) will be shipped off-site for final disposal to a licensed storage facility.

While NMED finds that the Permittees request is consistent with the applicable requirements of 40 CFR §270.42(e), which allows for NMED to consider granting approval of the temporary authorization of a Class 2 modification meeting the criteria in §270.42(e)(3)(ii), there is significant public interest in this matter. Therefore, NMED will not act on the temporary authorization request until the following criteria are successfully met by the Permittees is provided in the letter listed below, but is summarized generally as:

1. Independent Technical Review. Permittees shall obtain an independent technical review for alternative options for the depressurization of the FTWCs.
2. Public Meeting. Meeting must include a review of the independent technical review, the preferred treatment process, and a discussion of the safety mechanism and contingencies to ensure the protection of human health and the environment during operations.
3. Tribal Consultation. Permittees shall host a tribal consultation with interested tribal governments related to the independent technical review.
4. Compliance Audit. Permittees shall retain an independent auditor to conduct a hazardous waste compliance audit of its operations.

June 9, 2025 – After ensuring compliance with the applicable requests for Temporary Authorization regulations at 20.4.1.900 NMAC, incorporating 40 CFR §270.42, NMED has issued this response to the Temporary Authorization that was submitted by the Permittees.

To see the Permittees' Request and NMED's letter, click on the links below.

June 9, 2025 – NMED Response to Temporary Authorization Request
April 4, 2025 – DOE Notification of Planned Start of Activity
June 6, 2023 – DOE Public Outreach on FTWCs
January 28, 2022 – DOE Supplemental Information on Application for Treatment
December 13, 2021 – EPA Determination on the Definition of Treatment
October 28, 2021 – NMED Request RCRA Treatment Determination
September 3, 2020 – DOE Notification of Planned Start of Activity
March 9, 2020 – DOE Withdrawal and Resubmittal Temporary Authorization
June 20, 2019 – DOE Request for Temporary Authorization

LANL Hazardous Waste Facility Permit Mailing List

The New Mexico Environment Department (NMED) is required by regulation to maintain a Facility Mailing List as part of its oversight of the Los Alamos National Laboratory Hazardous (LANL) Waste Facility Permit (Permit). NMED, as well as the Department of Energy (collectively, the Permittees), use this list to inform stakeholders, including interested members of the public, of comment periods for permit modification requests and draft permits, and final NMED administrative actions on permit decisions, etc. If you wish to add your name to NMED's LANL Facility Mailing List, please notify Siona Briley by email at siona.briley@env.nm.gov , or by postal mail at Siona Briley, New Mexico Environment Department-Hazardous Waste Bureau, 2905 Rodeo Park East, Bldg. 1, Santa Fe, NM 87505. Please include your name, email *(preferred communication method to save resources)* or postal mailing address, and organization, if any.

The Permittees are required per Permit Part 1, to maintain a separate email notification list. The Permittees use this list to notify members of the public concerning actions such as reporting planned changes, reporting anticipated noncompliance, etc. If you wish to subscribe to the Permittees' email notification list.

Rules and Regulations
State and federal laws and regulations governing hazardous waste in New Mexico are available on the Laws and Regulations page.

Contact us
Ph: 505-476-6000

2905 Rodeo Park Dr. E, Building 1
Santa Fe, NM 87505

A listing of all Bureau staff and contact information is available here.

Exhibit E

DOE/NNSA response to July 27, 2023 letter, EPA Region 6 (Dr. Erthea Nance) to NNSA Los Alamos Field Office (Theodore A Wyka) (October 12, 2023)

DOE/NNSA response to July 27, 2023 letter, EPA Region 6 (Dr. Earthea Nance) to NNSA Los Alamos Field Office (Theodore A Wyka)

EPA Questions on FTWC Operations and Alternatives

1. **Transport of FTWC without venting:**
   - Please describe the current condition of the FTWC containers and their contents. ○ There are four FTWCs in controlled storage at 54-1028. The containers are safe and stable in the current configuration. The containers hold a mix of tritium contaminated parts and waste items. The contents are well documented, and modeling indicates that the containers likely consist of an explosive or flammable hydrogen/oxygen mixture. Each FTWC atmosphere can be slightly different dependent on specific contents.
   - Please clarify what conditions result in a restriction on the transportation of the containers in their current condition.
     - DOT regulations and worker safety requirements do not allow for handling or movement of the containers in the current configuration. Movement without mitigating the anticipated headspace gas can result in an uncontrolled, unmitigated, and unmonitored release
   - Given the presence of hydrogen gas in the headspace, is there concern that an explosive mixture may be present in the FTWCs?
     - Yes. While not directly measurable in the current configuration, modeling indicates an explosive or flammable hydrogen/oxygen mixture within the FTWCs; each FTWC atmosphere can be slightly different.
   - Does this concern result in a prohibition on moving the containers in their current condition? ○ Yes. The internal pressures must be mitigated prior to handling/venting to prevent an uncontrolled, unmitigated, and unmonitored release.
   - What precautions are necessary during the handling and venting of these containers to address this concern?
     - Any movement without mitigating the anticipated headspace gas can result in an unacceptable uncontrolled, unmitigated, and unmonitored release. The controlled venting operational design addresses this concern by allowing pressure mitigation in place at 54-1028. Only the actions necessary to achieve a safe handling condition will be performed at 54-1028. Further handling, packaging, and offsite shipment will be performed at the LANL Tritium Facility.
   - Can sampling be performed to characterize the headspace gas to inform option selection? ○ Sampling is included in the operational plan and procedures, throughout all operational phases. Opening the FTWCs for headspace sampling requires the same level of ventilation, emissions monitoring, and regulatory permitting/approval that is needed for full venting.
   - If sampling confirms that an explosive mixture is not a concern, what transportation restrictions apply to the containers due to the contents and pressure?
     - The primary objective of the field operations will be to meet DOT and worker safety requirements by resolving the pressure hazard. The controlled venting operation is designed to mitigate the pressure in the containers. Once accomplished, all additional processing will occur at the LANL Tritium Facility.
   - Please describe the requirements and availability of overpack/shipping containers necessary to transport the FTWCs in their current condition to WETF for processing.
     - There are no overpack/shipping containers that would allow for compliant shipping. Moving the containers into an overpack container poses the risk of an uncontrolled, unmitigated, and unmonitored release. Further, if the FTWCs release into an overpack container, then the

overpack becomes a new difficult, contaminated container with the same concerns and restrictions.

- Are there any limitations at WETF that would not allow for receiving and processing of the FTWCs in their current state? o No.

2. Venting into container:

- A variation of the current planned operation would involve venting the gas (after passing through the capture device) into an evacuated or negative pressure cylinder to capture all remaining tritium that is not removed by the capture device. The FTWC and this cylinder would then be transported to WETF for further processing. Please provide a full detailed analysis of this option.
    - This is technically possible, but creates new risks and new waste streams. The additional storage container(s) would need to be qualified to handle a hydrogen-rich/explosive atmosphere within the container, and would become additional waste. The effectiveness of the current design and capture system already minimize the potential release, and maximize worker and environmental protection. Adding additional components, complexity, and time to redesign the operation and system may provide for a very small reduction in the potential release, but will result in an increase in pressure in the containers and therefore increase the overall risk of the operation.
- What is the anticipated release associated with disconnection of hoses once the FTWC and the additional container are sealed?
    - At some point the process would reach a pressure equilibrium between the initial FTWC being vented and a storage cylinder; this remaining quantify of headspace gas would need to be vented to the environment. Connection equipment (hoses/valves/etc.) would also represent a possible tritium release after headspace gas transfer. Such releases would be a very small fraction of the original headspace gas volume and associated tritium emissions would be similarly small. All of these small releases will pass through the ventilation and sampling system and are part of the overall sampling and reporting plan.
- Can the hoses and connections be flushed with air and into the additional container to minimize this source of potential release?
    - Any flush gas would need to be at higher pressure than the storage container, or would require additional storage containers. Every change of a storage container creates additional waste and additional small releases.
- Under the current operational plan, what is the anticipated release associated with disconnection of hoses and sampling equipment once venting is complete and FTWC is sealed?
    - In the current operational plan, the connection lines are vented out the system stack. Also, the ambient air within 54-1028 is vented out the stack as well to measure any potential releases during system connection/disconnection activities. All of these small releases are accounted for in the sampling plan.
- Another alternative that would potentially eliminate a release would be to place the FTWCs inside a larger containment vessel and then vent or puncture the FTWC into the sealed vessel to relieve the pressure. The vessel containing the FTWC would then be transported for additional treatment. Please provide an evaluation of this option.
    - In this scenario, there is still the potentially explosive mixture within the new headspace and the same potential for igniting the headspace. Handling the FTWCs to load them into these new containers would have the same operational risks and concerns of the original FTWCs, and a larger contaminated container would be more difficult to handle, transport, and ultimately permanently disposition.

3. **Increased capture:**
   - Please describe the expected capture efficiency of the capture device for tritium vapor and gas and provide any supporting research and experimental results.
     - The collection efficiency of the AL-M1 has been studied extensively under a variety of operating conditions. Efficiency is very high (>90%) but can vary with operating temperature and flow rate through the system. The operation is specifically designed to maximize capture efficiency by carefully controlling depressurization rates. This operation and equipment has been successfully used at the LANL Tritium Facility dozens of times, by the same staff.
   - Bubblers are used to sample a small portion of the flow and capture tritium for measurement. Could the combination of the capture device followed by a large volume bubbler or series of bubblers be used to further reduce the anticipated release?
     - The flow rate through the FTWC venting system can be as much as 3000 times higher than the flow rate through the tritium sampler (bubbler). A similar collection system would have to be proportionately larger to accommodate the higher flow rates (technically infeasible).
   - Please describe any applications or limitations (e.g., saturation, flow rate, volume) to the use of a bubbler as a secondary capture device. Please evaluate the use of a secondary capture device to increase capture and provide defense-in-depth during operations.
     - The high flow rate of the FTWC venting system (up to 3000 times higher than the flow rate through the tritium sampler (bubbler)) makes this technically infeasible.
   - Please discuss the application of heat and/or catalyst use for this operation to convert tritium gas to vapor for capture in the device and/or bubblers?
     - The bubbler catalyst operates at 450 degrees Celsius to fully convert elemental tritium gas to water vapor phase and allow for subsequent collection. There are significant operational risks associated with using such high-temperature surfaces on a high-volume air stream that is potentially an explosive hydrogen-oxygen mixture.
   - Is it possible to provide for measurements of tritium before and after capture to assess the capture efficiency and monitor this over the duration of the operation? These measurements would also be helpful in initial characterization of the tritium contents in the headspace of the FTWCs.
     - Tritium concentration will be measured real-time throughout the operation. The primary purpose of this sampling is to ensure compliance and protection of the operational hold points.

4. **Delay venting:**
   - Please provide additional analysis of an operation plan of delaying venting operations to allow for additional decay to further decrease the potential release.
     - With tritium's 12-year half-life, the project would need to be delayed over 80 years to reduce the emissions to 1% of current levels. During that time, pressure continues to build, as does the safety exclusion area around the FTWCs. There is currently a window of time in which safe, compliant controlled venting can be performed. Once that time passes – likely in less than 4-5 years – any effort to move or mitigate the containers becomes much more difficult and introduces new risks, including possible curtailment of Area G cleanup efforts.
   - How will additional time impact the container pressure? ○ The decay of tritium and radiolysis of water vapor will result in an increase in the FTWC headspace pressure over time. Pressures increase about 5 psi each year of delay. The containers themselves are designed for permanent disposal and are designed to safely hold the maximum pressures possible throughout the entire lifecycle of the container. However, the controlled venting equipment has pressure limitations, and once those are exceeded there is no technology available to meet the worker safety requirements. At that point, the

only feasible options will be to permanently leave the containers in place, or remotely puncture the containers.

- How does increased pressure impact the current operation plan and equipment, including the venting manifold?
    - The currently planned controlled venting process will be unfeasible at some point in the near future. Based on modeling, that time is likely less than 4-5 years (2028). After this time the process becomes immensely more complex.
- What is the maximum amount of time before pressure concerns impact the current vent and transport plan?
    - The currently planned controlled venting process will not be possible after 4-5 years, though every year before then increases operational risk. After this time the process becomes immensely more complex, involving robotic or remotely-operated equipment.

5. Facility construction/containment:

- Please provide analysis of potential construction of a temporary facility, either built at the storage site or built and then transported to the site to provide containment during the venting and possibly sorting/packaging/processing for long term storage.
    - Any construction over the top of the current storage structure 54-1028 introduces the unacceptable risk of an uncontrolled, unmitigated, and unmonitored release.
- How would released tritium be captured and treated within the facility in this scenario? ○ The capture, treatment, and emissions measurement systems on such a temporary facility will be identical to the process planned for the current process.
- How does this compare to the current operation plan in terms of anticipated release? ○ Such a temporary facility would have the exact same tritium release considerations as the currently planned operation. All air inside the facility would have to be sampled through essentially the identical ventilation system that has been designed for 54-1028.

Conclusion/Additional Information

The guiding operational decisions and determination of remediation methods used for this project fall under three main categories with equal importance:

1. Maximize the protection of the public and the environment.
2. Prevent scenarios and conditions that could result in an uncontrolled, unmitigated, and unmonitored release of tritium. Such a release could occur if the potentially explosive hydrogen mixture in the FTWC headspace were to react, or if the containers were unintentionally damaged.
3. Ensure the safety of workers who are performing the hands-on work on the FTWCs.

Exhibit F

Story, Acting Division Leader Environmental Protection and Compliance Division, Triad, *et al*., Letter to Maestas, Acting Chief, Hazardous Waste Bureau, NMED (June 6, 2023)

Environmental Protection and Compliance Division
Los Alamos National Laboratory
P.O. Box 1663, MS M969
Los Alamos, NM 87545
505-667-8160

National Nuclear Security Administration
Los Alamos Field Office
3747 West Jemez Road, A316
Los Alamos, NM 87544
505-667-5794/Fax 505-606-5948

Symbol: EPC-DO-23-164
Date: June 6, 2023
LA-UR-23-24997

Mr. Ricardo Maestas, Acting Chief
Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505-6313

Subject: Public Outreach on the Flanged Tritium Waste Containers Project, Los Alamos National Laboratory, EPA ID #NM0890010515

Dear Mr. Maestas:

This letter is in response to a recent request for a list of public outreach activities undertaken by the U.S. Department of Energy (DOE) National Nuclear Security Administration (NNSA) and our contractor, Triad National Security LLC (Triad) regarding the above-referenced project. This information supplements our Temporary Authorization Request for waste treatment, storage and repackaging under the Los Alamos National Laboratory (LANL) Hazardous Waste Facility Permit (EPA ID# NM0890010515). The request was submitted to the New Mexico Environment Department-Hazardous Waste Bureau (NMED-HWB) on March 9, 2020 (EPC-DO-20-074/LA-UR-20-22103). The Temporary Authorization Request is a one-time operation to vent and repackage four Flanged Tritium Waste Containers (FTWCs) to prepare them for out-of-state transport and final disposition.

The following is a list of engagements (starting with the most recent) where NNSA and Triad provided information on the FTWCs project, solicited feedback, and offered to answer any questions. Additionally, information is available on the FTWCs website at: https://environment.lanl.gov/ftwc/.

Audience	Date	Description
Tewa Women United	March 8, 2023	Briefing
Santa Clara Pueblo in coordination with the U.S. Environmental Protection Agency (EPA) Region 6	November 10, 2022	Consultation
Pueblo de San Ildefonso	May 5, 2022	Site visit to Area G with discussion on the FTWCs

Audience	Date	Description
EPA Region 6	March 16, 2022	Overview of the FTWCs Supplemental Information provided at the EPA's request. The following pueblos and tribes called in to the meeting: Santa Clara Pueblo, Tesuque Pueblo, Acoma Pueblo, Sandia Pueblo, Pueblo of Isleta del Sur (TX), Seneca-Cayuga Nation (OK), United Keetoowan Band of Cherokee (OK), Ottawa Tribe (OK), Muscogee Creek Nation (OK), Choctaw Nation (OK), Alabama Coushatta (TX), and Jemez Pueblo.
Pueblo of San Felipe, Department of Natural Resources	December 9, 2021	NNSA met with Pueblo of San Felipe Department of Natural Resources staff to discuss any NNSA related concerns, regarding the FTWCs project.
Eight Northern Indian Pueblo Council (ENIPC)	September 21, 2021	NNSA provided a project overview briefing and answered questions at the virtual ENIPC September Monthly Meeting.
Environmental Protection Agency Region 6, Regional Tribal Operations Committee (EPA Region 6 RTOC)	September 14, 2021	NNSA provided a status report on the FTWCs project and answered questions at the EPA Region 6 RTOC virtual monthly meeting, which includes federally recognized tribes located in New Mexico, Oklahoma, Louisiana, and Texas.
Accords Technical Exchange Meeting (ATEM)	September 8, 2021	NNSA provided an update on project status to the Accords environmental staff. The virtual ATEM meeting was hosted by NNSA and DOE Environmental Management (EM).
All Pueblo Council of Governors (APCG)	August 26, 2021	NNSA provided a project overview briefing and answered questions at the virtual APCG August Monthly Meeting, which gathers all 20 Pueblo Governors.
New Mexico Environment Department (NMED)	August 25, 2021	Briefing to new upper management on the content of the Temporary Authorization Request and venting process described.
Email Notification to Pueblo Governors and staff	December 15, 2020	Sent email notification that provided a status update of the FTWCs project to nearby Pueblo Governors and staff.
EPA Region 6 Intertribal Resource Advisory Committee (IRAC)	November 19, 2020	NNSA provided an update on project status and answered questions at the virtual IRAC Annual Meeting.

Audience	Date	Description
Virtual Public Meeting No. 2	November 5, 2020	NNSA provided the same presentation from the Oct. 20 meeting. Questions submitted to Virtual Public Meeting No. 1 were answered and included in the FTWCs website. The meeting had 84 parties who logged or called in.
Virtual Public Meeting No. 1	October 20, 2020	NNSA provided a project overview presentation and answered questions on the FTWCs website. The meeting had 128 parties who logged or called in.
EPA Region 6 RTOC	October 6, 2020	NNSA provided a status report on the FTWCs project and answered questions at the EPA Region 6 RTOC virtual monthly meeting.
APCG	September 24, 2020	NNSA provided a briefing to all Pueblo Governors and answered questions at the virtual APCG September Monthly Meeting.
U.S. Senator Mike Bennett (D-Colorado) staffer	September 23, 2020	NNSA provided briefing to staff member via telephone.
Pueblo de San Ildefonso Governor Martinez	September 16, 2020	NNSA provided a status update briefing (virtual) to San Ildefonso Pueblo Governor Martinez and answered questions.
EPA Region 6 RTOC	September 1, 2020	NNSA provided a status report on the FTWCs project and answered questions at the virtual EPA Region 6 RTOC monthly meeting.
NMED Secretary James Kenney	August 6, 2020	Phone call.
EPA Region 6 Ken McQueen	July 29, 2020	Direct briefing or conference call.
Pueblo de San Ildefonso Governor Martinez	July 28, 2020	NNSA provided a direct briefing (virtual) to San Ildefonso Pueblo Governor Martinez and answered questions.
Los Alamos County Council	July 22, 2020	Direct briefing or conference call.
Los Alamos County Council	July 21, 2020	Direct briefing or conference call.
Pueblo of Santa Clara Governor Chavarria	July 21, 2020	NNSA provided a direct briefing (virtual) and answered questions.
EPA Region 6 RTOC	April 4, 2020	NNSA provided a presentation on the LANL Electronic Public Reading Room (EPRR) for the Air Quality permit at the virtual EPA Region 6 RTOC virtual monthly meeting.
Pueblo de San Ildefonso Governor Martinez	March 25, 2020	NNSA provided a direct briefing (virtual) and answered questions.

Audience	Date	Description
Los Alamos County Harry Burgess and Steven Lynne	March 24, 2020	Teleconference.
NMED-HWB Staff	February 20, 2020	Meeting and tour at the Weapons Engineering Tritium Facility to observe and discuss the planned process for the FTWCs project.

DOE/NNSA and Triad will not perform activities addressed in the Temporary Authorization Request until after the Readiness and Authorization activities are complete and the NMED-HWB approval is received. The formality of the readiness program is an important part of the rigorous process to ensure safe operations. When all required reviews are completed and approved, DOE/NNSA and Triad will formally communicate the intent to begin the operation to the NMED-HWB. Seasonal climate conditions do impact the safe conduct of the outdoor aspects of this project and the current goal is to perform the outdoor activities before the end of 2023.

If you have questions or comments regarding this submittal, please contact Kristen Honig (Triad) at (505) 500-6454 or by email at khonig@lanl.gov or Robert Gallegos (NNSA Los Alamos Field Office; NA-LA) at (208) 569-0377 or by email at robert.gallegos@nnsa.doe.gov.

Sincerely,

STEVEN STORY (Affiliate)
Digitally signed by STEVEN STORY (Affiliate)
Date: 2023.05.17 12:00:57 -06'00'

Steven L. Story
Acting Division Leader
Environmental Protection and Compliance Division
Triad National Security, LLC
Los Alamos National Laboratory

Sincerely,

Robert A. Gallegos
Digitally signed by Robert A. Gallegos
Date: 2023.06.06 12:01:13 -06'00'

Robert A. Gallegos
Permitting and Compliance Program Manager
National Nuclear Security Administration
Los Alamos Field Office
U.S. Department of Energy

SLS/RAG/KAH

Copy: Laurie King, USEPA/Region 6, Dallas TX, king.laurie@epa.gov
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Symbol: EPC-DO-23-164
Date: June 6, 2023
LA-UR -23-24997

Mr. Ricardo Maestas, Acting Chief
Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505-6313

Subject: Public Outreach on the Flanged Tritium Waste Containers Project, Los Alamos National Laboratory, EPA ID #NM0890010515

Dear Mr. Maestas:

This letter is in response to a recent request for a list of public outreach activities undertaken by the U.S. Department of Energy (DOE) National Nuclear Security Administration (NNSA) and our contractor, Triad National Security LLC (Triad) regarding the above-referenced project. This information supplements our Temporary Authorization Request for waste treatment, storage and repackaging under the Los Alamos National Laboratory (LANL) Hazardous Waste Facility Permit (EPA ID# NM0890010515). The request was submitted to the New Mexico Environment Department-Hazardous Waste Bureau (NMED-HWB) on March 9, 2020 (EPC-DO-20-074/LA-UR-20-22103). The Temporary Authorization Request is a one-time operation to vent and repackage four Flanged Tritium Waste Containers (FTWCs) to prepare them for out-of-state transport and final disposition.

The following is a list of engagements (starting with the most recent) where NNSA and Triad provided information on the FTWCs project, solicited feedback, and offered to answer any questions. Additionally, information is available on the FTWCs website at: https://environment.lanl.gov/ftwc/.

Audience	Date	Description
Tewa Women United	March 8, 2023	Briefing
Santa Clara Pueblo in coordination with the U.S. Environmental Protection Agency (EPA) Region 6	November 10, 2022	Consultation
Pueblo de San Ildefonso	May 5, 2022	Site visit to Area G with discussion on the FTWCs

Exhibit G

Bretzke, Division Leader, Environmental Protection and Compliance Division, *et al*., Letter to Kieling, Chief Hazardous Waste Bureau, NMED (Nov. 8, 2016)

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Date: NOV 0 8 2016
Symbol: EPC-DO-16-330
LA-UR: 16-28117
Locates Action No.: Not Applicable

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

Dear Mr. Kieling:

Subject: **Notification of Alternative Inspection Requirements for Shed 1028 at Technical Area 54, Area G, Pad 5**

The purpose of this letter is to request alternative inspections and document previous communications between the U.S. Department of Energy (DOE) and Los Alamos National Security, LLC, or Permittees, and the New Mexico Environment Department-Hazardous Waste Bureau (NMED-HWB) regarding alternative container storage inspections being conducted at Los Alamos National Laboratory (LANL). On September 16, 2016, the Permittees notified NMED-HWB by phone and electronic mail (email) of the need for alternative inspection requirements for waste containers stored within a portion of a permitted unit at Technical Area (TA) 54. Approval for alternative inspections from the NMED-HWB was received via email on September 16, 2016. Subsequently, on October 13, 2016, the Permittees requested an additional 60-day extension regarding existing alternative inspection requirements for the same waste containers. On October 19, 2016, NMED-HWB granted the 60-day extension request via email.

The change to regularly conducted visual inspection is necessary due to a potential safety concern regarding four mixed low level waste Flanged Tritium Waste Containers (FTWCs) containing tritium that are stored within TA-54, Building 1028 (TA-54-1028). The FTWCs contain mixed low-level waste (lead residues in spent gas valves), and tritiated wastewater, which is regulated by the Atomic Energy Act. Over time, radiolysis of tritiated water in the containers produces hydrogen and oxygen gas, derived entirely from the tritium low-level waste within the FTWCs. The Permittees have assessed whether the contained gases could possibly reach levels posing a potential hazard to workers in the near future. This waste is currently covered under the Site Treatment Plan (STP) (containers C09203611, C09203612, C09203613, and C09203614).

The Permittees have completed a safety analysis of the situation and have recommended controlled access to the waste containers within TA-54-1028 that will allow for complete visual inspection of the waste containers in accordance with LANL Hazardous Waste Facility Permit Section 2.6. Upon approval by the DOE of this controlled access, visual inspections as required in Permit Section 2.6 will resume.

Pending the outcome of the safety analysis approval, a 50-foot distance access restriction has been placed on TA-54-1028 and personnel are not allowed to enter into the shed. This safety measure is being implemented for radioactive material safety purposes and has been in place since September 16, 2016. A figure depicting the access restriction has been provided as Enclosure 1.

During this access restriction period, inspectors are unable to complete certain requirements of their normal container inspections for containers stored within TA-54-1028. The requirements of Permit Attachment E, *Inspection Plan* include Items 18-22 of the Inspection Record Form requirements. The direct inspection of containers, container lids, labels, compatibility, integrity, and aisle spacing are examples of inspection requirements that cannot be completed at this time. Although the containers themselves cannot be inspected, the following alternative inspection requirements were proposed and were put in place in order to meet the intent of the Permit requirements:

1. The integrity of the storage shed is inspected.
2. An inspection for evidence of liquids around or under the structure is performed, to the extent possible.
3. A comment is added to the Inspection Record Form to include the date of the last full inspection and to document the integrity of the containers.

These alternative inspection requirements are intended to be temporary and are anticipated to be in place from September 16, 2016 to December 8, 2016. The last inspection of TA-54-1028 and the FTWCs was conducted on September 8, 2016 and there were no issues identified within TA-54-1028 or with the integrity of the containers. TA-54-1028 is the only structure within the restricted area that contains waste. All other hazardous waste within the restricted area were moved to other locations. Additionally, the only hazardous waste constituent within the FTWC waste containers is lead, which is a minor component of the waste. The lead is contained within the FTWCs. The lead is unlikely to be dispersed from the shed should a release occur. In the event of a fire, explosion, or release of hazardous waste, the Permit Attachment D, *Contingency Plan,* will be implemented pursuant to Permit Section 2.11.1.

In addition to documenting these alternative inspections on the Inspection Record Form, the Permittees will include this information as an anticipated noncompliance pursuant to Permit Section 1.9.11 in the annual noncompliance report required by Permit Section 1.9.14. Upon approval of the safety analysis, implementation of corrective measures, and resumption of normal or alternate inspections, the Permittees will notify the NMED-HWB.

If you have comments/questions or would like to meet regarding this submittal, please contact Mark P. Haagenstad at (505) 665-2014 or Karen Armijo at (505) 665-7314.

Sincerely,

John C. Bretzke
Division Leader
Environmental Protection & Compliance Division
Los Alamos National Security, LLC

Sincerely,

Karen E. Armijo
Permitting and Compliance Program Manager
National Nuclear Security Administration
Los Alamos Field Office
U.S. Department of Energy

JCB:KEA:MPH:LVH/lm

Enclosure: (1) TA-54, Area G, Pad 5 – 50-foot Radius from TA-54-1028

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Douglas E. Hintze, EM-LA, (E-File)
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Hazardous Waste Bureau
New Mexico Environment Department
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NOV 2016

Dear Mr. Kieling:

Subject: Notification of Alternative Inspection Requirements for Shed 1028 at Technical Area 54, Area G, Pad 5

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ENCLOSURE 1

TA-54, Area G, Pad 5 – 50-foot Radius from TA-54-1028

EPC-DO-16-330

LA-UR-16-28117

Date: NOV 0 8 2016

TA-54, Area G, Pad 5 - 50-foot Radius from TA-54-1028