LA-UR-22-23737

Approved for public release; distribution is unlimited.

Title:	Notification of Construction of a New Air Emissions Source at Los Alamos National Laboratory - the Transuranic Liquid Waste Facility at LANL Technical Area 50
Author(s):	Lattin, Rebecca Renee
Intended for:	Environmental Regulatory Document
Issued:	2022-05-11 (rev.1)

Los Alamos
NATIONAL LABORATORY







Los Alamos National Laboratory, an affirmative action/equal opportunity employer, is operated by Triad National Security, LLC for the National Nuclear Security Administration of U.S. Department of Energy under contract 89233218CNA000001. By approving this article, the publisher recognizes that the U.S. Government retains nonexclusive, royalty-free license to publish or reproduce the published form of this contribution, or to allow others to do so, for U.S. Government purposes. Los Alamos National Laboratory requests that the publisher identify this article as work performed under the auspices of the U.S. Department of Energy. Los Alamos National Laboratory strongly supports academic freedom and a researcher's right to publish; as an institution, however, the Laboratory does not endorse the viewpoint of a publication or guarantee its technical correctness.

Environmental Protection & Compliance Division
Los Alamos National Laboratory
P.O. Box 1663, K491
Los Alamos, NM 87545
505-667-0666

National Nuclear Security Administration
Los Alamos Field Office
3747 West Jemez Road, A316
Los Alamos, NM 87544
505-665-7314/Fax 505-667-5948

Symbol: EPC-DO: 22-125
LA-UR: 22-23737
Locates Action No.: N/A
Date: 4/28/22

Mr. George P. Brozowski
Senior Regional Health Physicist/Radon Policy Advisor
U.S. Environmental Protection Agency, Region 6
1201 Elm Street, Suite 500
Mail Stop: 6ARSI
Dallas, TX 75270-2102

Subject: Notification of Construction of a New Air Emissions Source at Los Alamos National Laboratory - the Transuranic Liquid Waste Facility at LANL Technical Area 50

Dear Mr. Brozowski:

This memo serves as written notification of planned construction of a new source of emissions of airborne radioactive material from Los Alamos National Laboratory (LANL). This new source is the Transuranic Liquid Waste (TLW) facility at LANL Technical Area 50, which is a replacement facility that will process liquid effluent from the LANL plutonium facility. Construction of TLW is planned to begin on or shortly after May 31, 2022.

The TLW facility is the second stage of an upgrade project to replace LANL's Radioactive Liquid Waste Treatment Facility (RLWTF) which is currently located at Technical Area 50, Building 1 and treats both low-level liquid waste (LLW) and TLW. The first stage of the upgrade was the new LLW facility. The LLW facility is located at TA-50 Building 230, and construction was completed on this facility in 2019. The second stage is the TLW facility.

In November 2021, LANL submitted its Application for Pre-Construction Approval under 40 CFR 61 Subparts A and H for new Radiological Liquid Waste Treatment Facility – Transuranic Liquid Waste (RLWTF-TLW) to the United States Environmental Protection Agency (EPA). We refer to this document as "the Application", and a link to the Application is included at the end of this letter. On April 20, 2022, EPA approved the Application. EPA included several conditions of approval including Condition 5, which states: "Applicant shall provide written notification to EPA Region 6 and the tribal community within a 30-mile radius of LANL thirty (30) days prior to commencing construction." This written notification is provided pursuant to this Condition 5.

The Application described the facility operations and the airborne emissions of radioactive material that may be released from operations of the new TLW facility. A worst-case analysis of air emissions, with no credit for emissions controls, resulted in potential emissions exceeding 0.1 millirem per year to the maximum exposed individual member of the public. This is the threshold at which stack monitoring and advance EPA approval is required. However, when credit is taken for high-efficiency particulate air (HEPA) filters that will be installed on the exhaust stack, the anticipated emissions from operations of TLW will result in less than 0.000005 millirem per year to a member of the public.

The EPA's regulations addressing emissions of airborne radioactive material from Department of Energy Facilities are put forth in Title 40 of the Code of Federal Regulations, Part 61, Subpart H, the National Emissions Standards for Hazardous Air Pollutants – Radionuclides, called the Radionuclide NESHAP or Rad-NESHAP. Under this regulation, the EPA limit for emissions of airborne radionuclides is 10 millirem per year to the maximally exposed member of the public. In comparison, the typical level of background radiation exposure to a resident of Northern New Mexico is 300-400 millirem per year. In recent years, LANL's air emissions have resulted in less than 0.5 millirem per year, well below the EPA limit and indistinguishable from background radiation exposure.

Note that the TLW facility is subject to other environmental regulations including NPDES Permit no. NM0028355 and Ground Water Discharge Permit DP-1132. Today's memo is only intended to address this facility's compliance with the Radionuclide NESHAP and associated emissions of airborne radioactive material.

If your organization has questions or concerns about the TLW facility or LANL's Radionuclide NESHAP compliance program, please contact David Fuehne of LANL's Environmental Compliance Programs Group or Adrienne Nash of NA-LA. Mr. Fuehne can be reached by email at davef@lanl.gov or by phone at (505) 699-5619; Ms. Nash can be reached by email at adrienne.nash@nnsa.doe.gov or by phone at (505) 665-5026.

Sincerely,

JENNIFER PAYNE (Affiliate)
Digitally signed by JENNIFER PAYNE (Affiliate)
Date: 2022.04.26 12:35:21 -06'00'

Jennifer Payne
Division Leader
Environmental Protection and Compliance
Triad National Security, LLC

Sincerely,

P. Erika Baeza-Wisdom
Digitally signed by P. Erika Baeza-Wisdom
Date: 2022.04.28 15:40:16 -06'00'

P. Erika Baeza-Wisdom
Deputy Manager
National Nuclear Security Administration
U.S. Department of Energy

References: Transmittal of Application for Pre-Construction Approval under 40 CFR 61 Subparts A and H for new Radiological Liquid Waste Treatment Facility – Transuranic Liquid Waste (RLWTF-TLW). Memo EPC-DO:21-259, LANL and NA-LA to EPA Region 6, November 2, 2021. In the LANL Environmental Public Reading Room at: https://permalink.lanl.gov/object/tr?what=info:lanl-repo/lareport/LA-UR-21-30051

Copy:
Stephen Hoffman, NA-LA, stephen.hoffman@nnsa.doe.gov
P. Erika Baeza-Wisdom, NA-LA, erika.wisdom@nnsa.doe.gov
Margeau Valteau, NA-LA, margeau.valteau@nnsa.doe.gov
Karen Armijo, NA-LA, karen.armijo@nnsa.doe.gov
Marcus Pinzel, NA-LA, marcus.pinzel@lanl.gov
Adrienne Nash, NA-LA, adrienne.nash@nnsa.doe.gov
Everett Trollinger, NA-LA, everett.trollinger@nnsa.doe.gov
Eric Trujillo, NA-LA, eric.trujillo@nnsa.doe.gov
Steven Horak, Triad/CEA-PA, horak@lanl.gov
Rosemary Maestas, Triad/CEA-DO, rmaesta1@lanl.gov
Maxine McReynolds, Triad/GC-ESH, mcreynolds@lanl.gov
Scott Kennedy, Triad/ALDCP, skennedy@lanl.gov
David Daniels, Triad/PEO, dwd@lanl.gov
Paul Stevenson, Triad/PEO, rpstevenson@lanl.gov
Alvin Aragon, Triad/TA55-RLW, alaragon@lanl.gov
Mark Everett, Triad/PPI-1, meverett@lanl.gov
Michael Hazen, Triad/ALDESHQSS, mhazen@lanl.gov
William Mairson, Triad/ALDESHQSS, wrmairson@lanl.gov
Jeanette Hyatt, Triad/EWP, jhyatt@lanl.gov
Jennifer Payne, Triad/EPC-DO, jpayne@lanl.gov
Kristen Honig, Triad/EPC-DO, khonig@lanl.gov
Steve Story, Triad/EPC-CP, story@lanl.gov
David Fuehne, Triad/EPC-CP, davef@lanl.gov
Rebecca Lattin, Triad/EPC-CP, rlattin@lanl.gov
Kris Hyatt, Triad/EPC-CP, kris@lanl.gov
Records Center, NA-LA
Official Contract File, NA-LA
epc-correspondence@lanl.gov
eshqss-dcrm@lanl.gov
gc-esh@lanl.gov