Los Alamos NATIONAL LABORATORY

Environment and Waste Programs

Los Alamos National Laboratory
PO Box 1663, MS-M969
Los Alamos, NM 87545
505-667-8160

Symbol: EWP-25-015
Date: June 5, 2025
LA-UR-25-25188

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

Subject: 15-Day Notification of Newly Detected Constituent in Vapor Monitoring Well, Technical Area 63, Transuranic Waste Facility

Dear Mr. Nance:

This letter provides the New Mexico Environment Department-Hazardous Waste Bureau (NMED-HWB) notification of detection of a new constituent in soil vapor laboratory analytical results from a vapor monitoring well at the Los Alamos National Laboratory (LANL), Technical Area 63 (TA-63), Transuranic Waste Facility (TWF) operated by Triad National Security, LLC (Triad) on behalf of the U.S. Department of Energy, National Nuclear Security Administration, Los Alamos Field Office. The LANL Hazardous Waste Facility Permit (EPA ID# NM0890010515) (Permit), Part 3, Section 3.14.3 requires written notification within fifteen days after review of analytical data when sample results indicate "detection of a contaminant in a vapor monitoring well if that contaminant has not previously been detected in the well." Sampling for the calendar year 2025 quarter two occurred April 30, 2025, and sample analytical results were received May 28, 2025.

A sample collected from vapor monitoring well VMW-4 (63-2012), 25-foot port indicates the presence of acetone for the first time since vapor sampling began. Acetone is listed as a constituent of concern in Permit, Part 3, Table 3.14.3.2, Current Soil Gas Screening Levels for Selected VOCs; the screening level is 5.44E+08 micrograms per meter cubed ($\mu g/m^3$).

Soil vapor monitoring well VMW-4 is located across Puye Road and to the north of the permitted unit, closer to the TA-50 Material Disposal Area C Solid Waste Management Unit 50-009. The vapor monitoring well has two sampling ports at 25- and 60-foot depths below the ground surface.

Analysis of the soil vapor sample from VMW-4, 25-foot port indicates the detection of acetone at an estimated concentration of 6.6 $\mu g/m^3$, which is below the analytical report detection limit of 76 $\mu g/m^3$ and just above the method detection limit of 5.2 $\mu g/m^3$. Previously, acetone has been detected at the 60-foot port for VMW-4 in the 2017 sampling event and again in the 2023 Quarter 4 event.

There are no known issues with the sample quality for any of the samples collected during this field campaign.

Triad will continue to sample and track the presence of acetone in the subsurface through continued vapor monitoring and reporting.

The next monitoring report is due to NMED-HWB no later than June 30, 2025. The information presented in this notification will be included in the full report.

The enclosure provides the following permit-required information: date or dates of the sampling event, well designation, location of the well, any known issues with sample quality, and the specific category for which the data is reported under Permit, Part 3, Section 3.14.3.

If you have any questions or comments concerning this notification, please contact Luciana Vigil-Holterman, Triad, at (505) 665-3435, or by email at luciana@lanl.gov.

Sincerely,

Jeannette T Hyatt

Digitally signed by Jeannette T Hyatt
Date: 2025.06.04 23:11:08 -06'00'

Jeannette Hyatt
Senior Director
Environment and Waste Programs

JH:klv

Enclosure: *15-Day Notification of Newly Detected Constituent in Vapor Monitoring Well, Technical Area 63, Transuranic Waste Facility*

Copy: Laurie King, USEPA/Region 6, Dallas, TX, king.laurie@epa.gov
Rick Shean, NMED, 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
Michael Peterson, NMED-HWB, Santa Fe, NM, michael.Petersen@env.nm.gov
Theodore A. Wyka, NA-LA, theodore.wyka@nnsa.doe.gov
Stephen Hoffman, NA-LA, stephen.hoffman@nnsa.doe.gov
Jason Saenz, NA-LA, jason.saenz@nnsa.doe.gov
Karen E. Armijo, NA-LA, karen.armijo@nnsa.doe.gov
Peter Duklis Jr., NA-LA, peter.duklis@nnsa.doe.gov
Robert A. Gallegos, NA-LA, robert.gallegos@nnsa.doe.gov
Emmett Armour, NA-LA, emmett.armour@nnsa.doe.gov
Steven A. Coleman, Triad, ALDESHQ, scoleman@lanl.gov
Jennifer E. Payne, Triad, ALDESHQ, jpayne@lanl.gov
Kacy Hopwood, Triad, ALDESHQ, khopwood@lanl.gov
Jeannette T. Hyatt, Triad, EWP, jhyatt@lanl.gov
Steven L. Story, Triad, EPC-DO, story@lanl.gov
Katherine Higgins, Triad, EPC-DO, kwurden@lanl.gov
Jessica L. Moseley, Triad, EPC-WMP, jmoseley@lanl.gov
Jackie C. Hurtle, Triad, EPC-WMP, jhurtle@lanl.gov
Cecilia Trujillo, Triad, EPC-WMP, ceciliat@lanl.gov
Kristen Van Horn, Triad, EPC-WMP, klv@lanl.gov
Luciana Vigil-Holterman, EPC-WMP, luciana@lanl.gov
John M. Quintana, Triad, TA55-WF, johnq@lanl.gov
Michael J. Furman, Triad, EPC-WMP, mfurman@lanl.gov
Christian Maupin, N3B, christian.maupin@em-la.doe.gov
rcra-prr@lanl.gov

eshq-dcrm@lanl.gov
locatesteam@lanl.gov
epccorrespondence@lanl.gov
lasomailbox@nnsa.doe.gov

COPY

Los Alamos
NATIONAL LABORATORY

Environment and Waste Programs

Los Alamos National Laboratory
PO Box 1663, MS-M969
Los Alamos, NM 87545
505-667-8160

Symbol: EWP-25-015
Date: June 5, 2025
LA-UR-25-25188

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

Subject: 15-Day Notification of Newly Detected Constituent in Vapor Monitoring Well, Technical Area 63, Transuranic Waste Facility

Dear Mr. Nance:

This letter provides the New Mexico Environment Department-Hazardous Waste Bureau (NMED-HWB) notification of detection of a new constituent in soil vapor laboratory analytical results from a vapor monitoring well at the Los Alamos National Laboratory (LANL), Technical Area 63 (TA-63), Transuranic Waste Facility (TWF) operated by Triad National Security, LLC (Triad) on behalf of the U.S. Department of Energy, National Nuclear Security Administration, Los Alamos Field Office. The LANL Hazardous Waste Facility Permit (EPA ID# NM0890010515) (Permit), Part 3, Section 3.14.3 requires written notification within fifteen days after review of analytical data when sample results indicate "detection of a contaminant in a vapor monitoring well if that contaminant has not previously been detected in the well." Sampling for the calendar year 2025 quarter two occurred April 30, 2025, and sample analytical results were received May 28, 2025.

A sample collected from vapor monitoring well VMW-4 (63-2012), 25-foot port indicates the presence of acetone for the first time since vapor sampling began. Acetone is listed as a constituent of concern in Permit, Part 3, Table 3.14.3.2, Current Soil Gas Screening Levels for Selected VOCs; the screening level is 5.44E+08 micrograms per meter cubed ($\mu g/m^3$).

Soil vapor monitoring well VMW-4 is located across Puye Road and to the north of the permitted unit, closer to the TA-50 Material Disposal Area C Solid Waste Management Unit 50-009. The vapor monitoring well has two sampling ports at 25- and 60-foot depths below the ground surface.

Analysis of the soil vapor sample from VMW-4, 25-foot port indicates the detection of acetone at an estimated concentration of 6.6 $\mu g/m^3$, which is below the analytical report detection limit of 76 $\mu g/m^3$ and just above the method detection limit of 5.2 $\mu g/m^3$. Previously, acetone has been detected at the 60-foot port for VMW-4 in the 2017 sampling event and again in the 2023 Quarter 4 event.

There are no known issues with the sample quality for any of the samples collected during this field campaign.

Triad will continue to sample and track the presence of acetone in the subsurface through continued vapor monitoring and reporting.

ENCLOSURE

15-Day Notification of Newly Detected Constituent in Vapor Monitoring Well, Technical Area 63, Transuranic Waste Facility

Date: June 5, 2025

EWP-25-015
LA-UR-25-25188

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

15-Day Notification of Newly Detected Constituent in Vapor Monitoring Well, Technical Area 63, Transuranic Waste Facility

Table 1. Additional Constituent Detected in TA-63 Transuranic Waste Facility Soil Vapor Monitoring Well

Date of Sampling Event	April 30, 2025
Well Designation	VMW-4 (63-2012), 25-foot port
Location of Well	Los Alamos National Laboratory, Technical Area 63 Transuranic Waste Facility Structure Number 63-2012 Northing: 1768331.9528 Easting: 1626817.1176
Known Issues with Sample Quality	None
Reporting Data Category for LANL Hazardous Waste Facility Permit Part 3, Section 3.14.3	Additional compound not previously detected in the soil vapor monitoring well.

Table 2. Soil Vapor Monitoring Well Analytical Data

Well ID	Sample ID	Port Depth (feet)	Constituent	Listing in Permit Table	Result (µg/m^3)	Data Qualifier	Report Detection Limit (µg/m^3)	Soil Gas Screening Level (µg/m^3)	Percent of SGSL (%)
VMW-4 (63-2012)	TWF63-25-360418	25	Acetone	Acetone	6.6	J	76	5.44E+08	<0.1

EPA Data Qualifier “J” indicates the constituent is present but estimated.