Los Alamos NATIONAL LABORATORY

ESHID-603692

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

Waste Management Programs

Date: April 25, 2022
Symbol: EPC-DO-22-122
LA-UR: 22-23723

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

Subject: Final Report - Destruction of Unstable Container at TA-48, Los Alamos National Laboratory

Dear Mr. Shean:

On April 20, 2022, Triad National Security, LLC, in coordination with the U.S. Department of Energy National Nuclear Security Administration Los Alamos Field Office, requested approval from the New Mexico Environment Department-Hazardous Waste Bureau (NMED-HWB) to treat an unstable chemical container at Technical Area (TA)-48 at the Los Alamos National Laboratory (EPA ID# NM0890010515) by emergency detonation. On April 20, 2022, the NMED-HWB granted Emergency Authorization for treatment by detonation.

An unstable 1-liter container of tetrahydrofuran was identified while performing a routine assessment of time-sensitive chemical containers at TA-48, Building 1. Emergency Responders determined that the container was unstable due to an unsafe accumulation of peroxides and that the safest response was onsite emergency treatment in a total containment vessel. Treatment was conducted at TA-48 in accordance with Title 40 of the Code of Federal Regulations §270.61. The emergency treatment was conducted in a vessel; therefore, there was no release to the environment as a result of the emergency treatment. The destruction was completed on April 20, 2022, at 7:42 p.m., in a controlled and safe manner. Emergency treatment was effective, and no residue or other hazardous materials remained after treatment.

The emergency permit application, submitted via email to the NMED-HWB on April 20, 2022, is included as Attachment 1 of this letter. Please contact Patrick L. Padilla at (505) 412-0462 or by email at plpadilla@lanl.gov if you have questions.

Sincerely,

JESSICA MOSELEY (Affiliate)
Digitally signed by JESSICA MOSELEY (Affiliate)
Date: 2022.04.22 12:08:42 -06'00'

Jessica Moseley
Group Leader

Attachment: Emergency Permit Application

Copy:
Rick Shean, NMED-HWB, Santa Fe, NM, rick.shean@state.nm.us

Stephen Connolly, NMED-HWB, Santa Fe, NM, stephen.connolly@state.nm.us
Neelam Dhawan, NMED-HWB, Santa Fe, NM neelam.dhawan@state.nm.us
Siona Briley, NMED-HWB, Santa Fe, NM, siona.briley@state.nm.us
Mitchell Schatz, NMED-HWB, Santa Fe, NM, mitchell.schatz@state.nm.us
Theodore A. Wyka, NA-LA, theodore.wyka@nnsa.doe.gov
Stephen Hoffman, NA-LA, stephen.hoffman@nnsa.doe.gov
Darlene Rodriguez, NA-LA, darlene.rodriguez@nnsa.doe.gov
Karen E. Armijo, NA-LA, karen.armijo@nnsa.doe.gov
Marcus Pinzel, NA-LA, marcus.pinzel@nnsa.doe.gov
Michael W. Hazen, Triad, ALDESHQSS, mhazen@lanl.gov
William R. Mairson, Triad, ALDESHQSS, wrmairson@lanl.gov
Jeannette T. Hyatt, Triad, EWP, jhyatt@lanl.gov
Jennifer E. Payne, Triad, EPC-DO, jpayne@lanl.gov
Kristen A. Honig, Triad, EPC-DO, khonig@lanl.gov
Andie McLaughlin-Kysar, Triad, EPC-DO, andiek@lanl.gov
Jeremy D. Grondin, Triad, EM-OPS, jeremyg@lanl.gov
Christian M. Rittner, Triad, EM-RESP, crittner@lanl.gov
John T. Collins, Triad, EM-OPS, jcollins@lanl.gov
Jessica L. Moseley, Triad, EPC-WMP, jmoseley@lanl.gov
Cecilia M. Trujillo, Triad, EPC-WMP, ceciliat@lanl.gov
Patrick L. Padilla, Triad, EPC-WMP, plpadilla@lanl.gov
rcra-prr@lanl.gov
eshqss-dcrm@lanl.gov
epc-correspondence@lanl.gov
lasomailbox@nnsa.doe.gov

Los Alamos
NATIONAL LABORATORY

Waste Management Programs

Received
APR 25 2022
NMED Hazardous Waste Bureau

Los Alamos National Laboratory
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Los Alamos, NM 87545
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Group Leader

Attachment: Emergency Permit Application

Copy:
Rick Shean, NMED-HWB, Santa Fe, NM, rick.shean@state.nm.us

Attachment 1

Emergency Permit Application

EPC-DO: 22-122

LA-UR: 22-23723

Date: April 25, 2022

Email Application To: Janine.Kraemer@state.nm.us Stephen.Connolly@state.nm.us John.Kieling@state.nm.us NMED-Hazardous Waste Bureau 2905 Rodeo Park Drive East, Bldg. 1 Santa Fe, New Mexico, 87505 Phone: 505-476-6025 Fax: 505-476-6030 https://www.env.nm.gov/hazardous-waste/	**Emergency Permit Application**	**For Department use only:** **Date Received:** **Reviewed/Issued by:** **Date Issued:** **ER Permit No.:** **Final Report Submitted:** **Public Notice Date:**

This application is submitted for the destruction of:

☑ Unstable Hazardous Waste

☐ Other _____

Emergency destruction of waste materials is allowed when performed in accordance with 20.4.1.900 NMAC, incorporating 40 CFR § 270.1(c)(3), under an emergency permit issued by the New Mexico Environment Department (NMED) in accordance with 20.4.1.900 NMAC incorporating 40 CFR § 270.61.

40 CFR § 270.61 Emergency Permits.

a) Notwithstanding any other provision of this part or part 124, in the event NMED finds an imminent and substantial endangerment to human health or the environment NMED may issue a temporary emergency permit:

(1) To a non-permitted facility to allow treatment, storage, or disposal of hazardous waste or

(2) to a permitted facility to allow treatment, storage, or disposal of a hazardous waste not covered by an effective permit.

(b) This emergency permit:

(1) May be oral or written. If oral, it shall be followed in five days by a written emergency permit;

(2) Shall not exceed 90 days in duration;

(3) Shall clearly specify the hazardous wastes to be received, and the manner and location of their treatment, storage, or disposal;

(4) May be terminated by the NMED at any time without process if he or she determines that termination is appropriate to protect human health and the environment;

(5) Shall be accompanied by a public notice published under § 124.10(b) including:

(i) Name and address of the office granting the emergency authorization;

(ii) Name and location of the permitted Hazardous Waste Management (HWM) facility;

(iii) A brief description of the wastes involved;

(iv) A brief description of the action authorized and reasons for authorizing it; and

(v) Duration of the emergency permit; and

(6) Shall incorporate, to the extent possible and not inconsistent with the emergency situation, all applicable requirements of this part and 40 CFR parts 264 and 266.

Section 1: Facility Information	EPA ID #: NM0890010515
Facility Name: Los Alamos National Laboratory	Name of Person Requesting Permit: Patrick L. Padilla
Facility Address (If no facility address, please provide latitude/longitude): Bikini Atoll Road, Bldg SM-30 Los Alamos, NM 87545	
E-mail Address: plpadilla@lanl.gov	Phone Number: 505-412-0462

Section 2: Description of Emergency Situation:

Per conversation with Steven Connolly of the New Mexico Environment Department Hazardous Waste Bureau (NMED-HWB) on April 20, 2022, Los Alamos National Laboratory (LANL) Environmental Protection and Compliance Division personnel were notified on April 20, 2022 by the Emergency Operations Group (EMD-EO) personnel, that an unstable chemical/container was identified at Technical Area (TA) 48 Building 1. The following information was provided by EMD-EO personnel regarding the unstable chemical:

-Unstable Tetrahydrofuran (1 Liter) in an undamaged container with a regular cap, without safety cap.
- Stored at room temperature uninhibited, and not stored in an inert atmosphere.
- Testing indicated greater than 2,000 parts per million peroxides.

LANL EMD-EO personnel determined the unstable chemical/container was shock sensitive and posed an imminent and substantial endangerment to human health and the environment and requested permission from the NMED-HWB to conduct emergency treatment in accordance with Title 40 Code of Federal Regulations 270.1(c)(3). EMD-EO personnel determined the safest path forward for treatment to be on-site (TA-48) through contained vessel detonation. Upon completion of emergency treatment, all remaining residual material, if any, will be collected and properly managed.

Section 3: Specific List of Waste to be Destroyed:

The waste description must consist of the following information:

- Container volume and description (e.g. glass bottles, metal cans, steel tanks)
- the chemical name
- the manufacturer (if available)
- the hazardous waste codes
- the quantity (liters, gallons, etc.) to be treated
- approximate age of the material
- a description of the physical state of the chemical. (e.g. solid, liquid, crystalized, etc.).

Container Size	Type	*Chemical	CAS #	Manufacturer	Waste Code	Quantity	Age	Physical State
1 Liter	Glass Bottle	Tetrahydrofuran	109-99-9	Aldrich Sigma	U213	1	UK	crystals/liquid

***Provide NMED with Safety Data Sheets /Waste Profiles and pictures of chemicals to be destroyed, if possible.**

Section 4: Final Report:

Please be advised that a Final Report must be submitted to NMED within 5 days after destruction is completed and include the following elements:

1. Name, EPA ID #, and location of the permitted facility;

2. A brief description of the wastes involved;

3. A brief description of the action authorized and reasons for request;

4. Location of the destruction, and

5. A brief description of disposal of residue, if applicable.