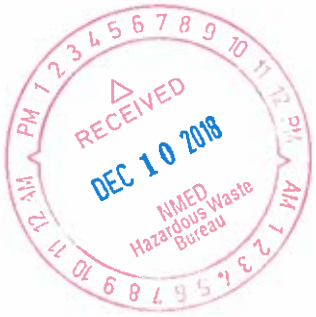
U.S. DEPARTMENT OF ENERGY



ESHID-603318

Environmental Management
Los Alamos Field Office
1900 Diamond Drive, M984
Los Alamos, New Mexico, 87544
(505) 665-5820/Fax (505) 665-5903

National Nuclear Security Administration
Los Alamos Field Office
3747 West Jemez Road, A316
Los Alamos, New Mexico 87544
(505) 667-5105/Fax (505) 667-5948

Date: DEC 10 2018
Symbol: EPC-DO: 18-422
LA-UR: 18-30935
Locates Action No.: N/A

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

Subject: Request for Extension of the One-Year Storage Limit at the Los Alamos National Laboratory, Technical Area 54, Area L

Dear Mr. Kieling:

This letter transmits a request for extension of time in accordance with Permit Section 1.9.19, *Extensions of Time*, of 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); also referred to as "the Permittees" to manage, store, and treat hazardous waste at LANL. The Permittees are requesting an extension of time to November 30, 2019.

The Permittees have exceeded and anticipates exceeding the one-year storage limit on 11 containers containing trace amount of high explosives in a flammable or combustible liquid, whereby shipping was halted until a special Department of Transportation (DOT) shipping permit is obtained (Table 1). This proposed extension has been prepared in accordance with Permit Section 1.9.19, *Extensions of Time*. The Permittees current path forward is to obtain a special DOT shipping permit for an Interim Hazard Classification (IHC) to package and transport low concentrations of explosives, not exceeding 5.0 percent by weight, dissolved (as defined in Title 49 of the Code of Federal Regulations § 171.8) (Enclosure 1). The Permittees are unable to ship this waste until the DOT special permit is granted.

Table 1. Containers Exceeding and Anticipated to Exceed the One Year Storage Limit in Area L.

Count	Container ID	Facility Storage Date	Storage Expiration	Volume (gal)	EPA Codes
1	W838402	12-18-2017	12-18-2018	55	
2	W838404	12-18-2017	12-18-2018	5	
3	W838992	08-24-2017	08-24-2018	14	
4	W839101	04-05-2018	04-05-2019	55	
5	W839296	09-21-2017	09-21-2018	55	D001
6	W840804	07-11-2018	07-11-2019	30	F003
7	W845975	08-06-2018	08-06-2019	55	
8	W846466	09-04-2018	09-04-2019	55	
9	W846871	09-27-2018	09-27-2019	55	
10	W846065	08-09-2018	08-09-2019	55	
11	W838405	12-18-2017	12-18-2018	5	

The Permittees will provide quarterly status reports to the New Mexico Environment Department – Hazardous Waste Bureau (NMED-HWB) and will provide shipping notifications demonstrating the transfer to an offsite facility for treatment and disposal.

Sincerely,

Arturo Q. Duran
Permitting and Compliance Manager
Environmental Management
U.S. Department of Energy

Sincerely,

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

AQD/KEA/VRB:dt

Enclosure: 1. Request for Interim Hazard Classification of ≤5.0% by Weight Dissolve Explosive in Flammable or Combustible Solution

Copy: Laurie King, USEPA/Region 6, Dallas, TX, (E-File)
John E. Kieling, NMED-HWB, Santa Fe, NM, (E-File)
Neelam Dhawan, NMED-HWB, Santa Fe, NM, (E-File)
Siona Briley, NMED-HWB, Santa Fe, NM, (E-File)
William S. Goodrum, NA-LA, (E-File)
Peter Maggiore, NA-LA, (E-File)
Jody M. Pugh, NA-LA, (E-File)
Karen E. Armijo, NA-LA, (E-File)
Adrienne L. Nash, NA-LA, (E-File)
Gabe Pugh, NA-LA, (E-File)
David S. Rhodes, EM-LA, (E-File)
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Elizabeth A. Churchill, EM-LA, (E-File)
Jesse L. Kahler, EM-LA, (E-File)
Nicholas J. Lombardo, N3B, (E-File)
Frazer R. Lockhart, N3B, (E-File)
Benjamine B. Roberts, N3B-CT, (E-File)
Ellen E. Gammon, N3B-CT, (E-File)
Michael W. Hazen, ESHQSS, (E-File)
Enrique Torres, EPC-DO, (E-File)
Peter H. Carson, EPC-WMP, (E-File)
Tammy A. Diaz, EPC-WMP, (E-File)
Patrick L. Padilla, EPC-WMP, (E-File)
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Enclosure 1

Request for Interim Hazard Classification of ≤5.0% by Weight Dissolve Explosive in Flammable or Combustible Solution

EPC-DO: 18-438

LAUR-18-31245

Date: DEC 10 2018

Los Alamos
NATIONAL LABORATORY
EST. 1943

Operations Support – Packaging and Transportation
Los Alamos National Laboratory
PO Box 1663, A-194
Los Alamos, NM 87545
505-665-2713

Symbol: ALDFO:18-131
Date: November 16, 2018

National Nuclear Security Administration Service Center
Attn: Mr. Kevin Carr <Kevin.Carr@nnsa.doe.gov>
Office of Packaging and Transportation, NA-531
P.O. Box 5400
Albuquerque, NM 87185

Subject: **Request for Interim Hazard Classification of ≤5.0% by Weight Dissolved Explosive in Flammable or Combustible Solution**

Reference: **Interim Hazard Classifications 2016-70 and 2017-13**

Dear Mr. Carr:

Los Alamos National Laboratory (LANL) is seeking an Interim Hazard Classification (IHC) to package and transport low concentrations of explosives, not exceeding 5.0% by weight, dissolved in a Department of Transportation (DOT) hazardous material flammable or combustible liquid (as defined in 49 CFR 171.8). This IHC request is based off IHCs 2016-70 and 2017-13.

Description of Explosive Dissolved in Solution

In August, 2016, Explosive Examiners, LLC, at the request of the Sandia National Laboratory (SNL), performed testing of an acetone solution containing 5.0% (50,000 ppm) hexanitrohexaazaisowurtzitane, also known as CL-20 (explosive dissolved in the solvent). United Nations (UN) Series 1 and 2 explosive hazard classification tests were performed. The explosive hazard classification test results reported the sample to be non-explosive and the report provides the necessary data for the Department of Transportation (DOT) to determine and assign the appropriate hazard class for five (5) percent or less of trace explosive in solvent solutions when being shipped and/or stored. Based on the test results, the test laboratory report requested that the DOT assign a hazard class of 3, Desensitized explosive liquid, n.o.s. for this type of substance. The specifics are available in the SNL Report, Final Hazard Classification Request for Not More Than 5 Percent Explosives in Solution.

In the test report to SNL, Explosive Examiners, LLC provided the following qualifiers:

The customer desires a hazard classification to allow shipment of many different laboratory wastes for disposal. Since their list of wastes is literally composed of hundreds of samples comprising dozens of explosives and solvents in all possible combinations, it is simply not feasible to test every waste. We decided to test a single representative simulated waste.

The hazard class recommendation applies to all explosive materials up to and include an energy density and sensitivity of CL-20. Explosive Examiners, LLC, specifically stated: "CL20 is thought to represent the worst case in that it is a fairly sensitive molecule (slightly more sensitive than PETN) and it also has the highest detonation energy of any commonly available explosive."

Description of Flammable and Combustible Solvents

The solvents requested in this IHC are organic solutions used in process operations, laboratory analysis, and research and development.

As stated in the Explosive Examiners, LLC, Explosive Examination Report:

"Any suitable liquid may be used as the desensitizing agent. The explosive must be completely dissolved in the solvent. The explosive content of the solution shall not exceed five (5) percent by weight. The desensitizing liquid shall not freeze and the dissolved explosive shall not precipitate at the anticipated shipping temperatures."

Proposed Explosive Hazard Classification

Identification Number:	UN3379
Proper Shipping Name:	Desensitized explosive, liquid, nos
Hazard Class & Division:	3
Packing Group:	I
Packing Reference:	173.201

Explosive Hazards

Based on the recommendation by Explosive Examiners, LLC, for up to 5.0% by weight CL-20 in acetone (Class 3, PG II), and IHCs 2016-70 and 2017-13, this IHC request asks for a Class 3 desensitized explosive DOT hazard classification.

Packaging

The packaging is subject to 49 CFR 173.201 (packing group I, non-bulk packagings)

Transportation

The solutions will be transported and shipped by highway via commercial carrier.

Sincerely,

Bret E. Simpkins
Associate Laboratory Director
Facilities and Operations

JWA:DTT:mym

Copy:
Jose Munoz, DO/NNSA, Jose.Munoz@nnsa.doe.gov
Jim Angelo, ALDFO/OS, jangelo@lanl.gov
Donald Thorp, ALDFO/OS-PT, dtthorp@lanl.gov
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Wade Winters, ALDFO/OS-PT, reghead@lanl.gov
ALDFO Files

Los Alamos
NATIONAL LABORATORY
EST. 1943

Operations Support – Packaging and Transportation
Los Alamos National Laboratory
PO Box 1663, A-194
Los Alamos, NM 87545
505-665-2713

Symbol: ALDFO:18-132
Date: November 16, 2018

National Nuclear Security Administration Service Center
Attn: Mr. Kevin Carr <Kevin.Carr@nnsa.doe.gov>
Office of Packaging and Transportation, NA-531
P.O. Box 5400
Albuquerque, NM 87185

Subject: **Request for Interim Hazard Classification of ≤0.5% by Weight Explosive Dispersed Through-out Debris**

Reference: **Interim Hazard Classifications 2016-61 and 2017-07**

Dear Mr. Carr:

Los Alamos National Laboratory (LANL) is seeking an Interim Hazard Classification (IHC) to package and transport low concentrations of explosives, not exceeding 0.5% by weight dispersed in solids. This IHC request is based off IHCs 2016-61 and 2017-07.

Description of Explosive in Solids

This IHC request is based on the Consolidated Nuclear Security, LLC (CNS) May 2015 request, Waste Solids Contaminated with up to 5000 PPM High Explosives.

This FHC request concerns materials, with a physical state of solid, that contain various explosives distributed throughout to a level of up to 5000 ppm, or 0.5 % by weight. The wastes consists of solids such as fiber cloths and wipes, personal protective gloves, personal protective clothing, plastics, wood, glassware, filter paper, tape, floor sweep dust suppressant, and dirt contaminated as a result of explosive research and development, processing, and decontamination operations, sample preparation, machining, component assembly and disassembly, etc.

Specified operational and procedural controls limit the introduction of explosive contaminated material into shipping containers. Dedicated, professional waste management staff members, in conjunction with explosive safety experts, establish acceptable physical and administrative practices that assure very low explosive concentrations – not exceeding 0.5% by weight – throughout the material.

Proposed Explosive Hazard Classification

Identification Number: UN0000
Proper Shipping Name: Not Regulated

Explosive Hazards

None.

Packaging

The packaging will meet the minimum requirements provided in 49 CFR 173.24, General Requirements for Packagings and Packages.

Transportation

The solids will be transported and shipped by highway via commercial carrier. Samples of materials will be shipped by highway via commercial carriers or by aircraft via cargo aircraft only.

Sincerely,

Bret E. Simpkins
Associate Laboratory Director
Facilities and Operations

JWA:DTT:mym

Copy:
Jose Munoz, DO/NNSA, Jose.Munoz@nnsa.doe.gov
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