

Permit



GARY E. JOHNSON  
GOVERNOR

State of New Mexico  
**ENVIRONMENT DEPARTMENT**

*Hazardous Waste Bureau*  
2905 Rodeo Park Drive East, Building 1  
Santa Fe, New Mexico 87505-6303  
Telephone (505) 428-2500  
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www.nmenv.state.nm.us



JOHN R. D'ANTONIO, JR.  
SECRETARY

**CERTIFIED MAIL  
RETURN RECEIPT REQUESTED**

August 21, 2002

Dr. John Browne, Director  
Los Alamos National Laboratory  
P.O. Box 1663, Mail Stop A100  
Los Alamos, New Mexico 87545

Mr. Ralph Erickson, Area Manager  
Department of Energy-Los Alamos Area Office  
528 35<sup>th</sup> Street, Mail Stop A316  
Los Alamos, New Mexico 87544

**RE: REQUEST FOR INFORMATION REGARDING ACCELERATOR PRODUCED  
RADIOACTIVE MATERIAL PURSUANT TO THE NEW MEXICO  
HAZARDOUS WASTE ACT AND THE RESOURCE CONSERVATION AND  
RECOVERY ACT  
LOS ALAMOS NATIONAL LABORATORY, NM0890010515**

Dear Dr. Browne and Mr. Erickson:

The New Mexico Environment Department ("NMED") is in the process of renewing the RCRA hazardous waste management Permit ("Permit"), including corrective action requirements, for the Los Alamos National Laboratory facility ("LANL Facility") pursuant to the New Mexico Hazardous Waste Act ("HWA"), NMSA 1978, §§ 74-4-1 to 74-4-14, and the federal Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C. §§ 6901 to 6992k. NMED requests information regarding the source, composition, nature, and quantity of accelerator produced radioactive materials that are or have been generated, treated, stored, disposed of, or otherwise managed at, or transported to, the LANL Facility. Inquiry into the nature, origin, estimated volumes and locations of the final disposition of the wastes at the LANL Facility will facilitate NMED's evaluation of permit renewal, appropriate corrective action measures, and compliance with the permit.

Los Alamos National Laboratory ("LANL") is a national laboratory owned and operated by the United States Department of Energy ("DOE"), and DOE is an agency of the United States. LANL is also operated by the University of California ("UC"). Each of these entities, DOE and



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UC (collectively the permittees), is a person who generates, stores, treats, transports, disposes of, or otherwise handles or has handled hazardous wastes within the meaning of the HWA and RCRA. NMSA 1978, § 74-4-3.K; 42 U.S.C. § 6903(15).

Section 74-4-4.3.A(1) of the HWA provides that "[f]or the purposes of taking any corrective action or enforcing the provisions of the [HWA], . . . upon request of [NMED] any person who generates, stores, treats, transports, disposes of or otherwise handles or has handled hazardous wastes shall furnish information relating to such hazardous wastes." Likewise, section 3007(a) of RCRA provides that "[f]or purposes of enforcing the provisions of [RCRA], any person who generates, stores, treats, transports, disposes of, or otherwise handles or has handled hazardous wastes shall, upon request of . . . any duly designated officer, employee, or representative of a State having an authorized hazardous waste program, furnish information relating to such wastes." 42 U.S.C. § 6927(a).

Furthermore, Condition I.D.7 of the Hazardous Waste Facility Permit for LANL (No. NM0890010515), as modified, provides that LANL must furnish to NMED "any relevant information which NMED may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit."

In accordance with these provisions, compliance with this information request by the permittees is mandatory. Failure to respond fully and truthfully to this information request within the time specified herein, or adequately justify such failure to respond, may result in an enforcement action by NMED pursuant to section 74-4-10 of the HWA, or section 7002(a)(1)(A) of RCRA, 42 U.S.C. § 6972(a)(1)(A), or both. Both the HWA and RCRA provide for the imposition of civil penalties for noncompliance. Section 74-4-12 of the HWA provides that any person who violates any provision of the HWA "may be assessed a civil penalty not to exceed ten thousand dollars (\$10,000) for each day during any portion of which a violation occurs." *See also* NMSA 1978, § 74-4-10.A and B. Section 3008(g) of RCRA provides that any person who violates any requirement of RCRA shall be liable for a civil penalty not to exceed \$27,500 per day for each such violation. 42 U.S.C. § 6928(g). Both the HWA and RCRA also provide for criminal fines and imprisonment for knowingly omitting material information or making a false statement or representation in any document used for compliance with the HWA or RCRA. NMSA 1978, § 74-4-11.A(3); 42 U.S.C. § 6928(d)(3).

## INSTRUCTIONS

The following instructions shall apply to your response to these information requests:

1. Provide a separate narrative response to each information request, and to each subpart.
2. Precede each response to an information request with the number of the information request to which it responds. Precede each response to a subpart of an information request with the letter of the subpart to which it responds.

3. In responding to the information requests, every source of information to which DOE or UC has access shall be consulted, regardless of whether the source is in the immediate possession or control of DOE or UC. All documents or other information in the possession of experts, consultants, attorneys, or agents shall be consulted.
4. If any information request cannot be fully responded to, as full a response as is possible shall be provided. The response shall state the reason for the inability to respond fully, and provide any available information, knowledge, or belief regarding the portion not responded to.
5. If information that is not known or not available as of the date of the submission of a response to these information requests subsequently becomes known or available, the response must be supplemented to include such newly found or available information. Moreover, if any information in a response is subsequently found to be false or inaccurate, the response must be supplemented to correct the falsity or inaccuracy.
6. If information requested herein has already been supplied to NMED your response may reference that submission in lieu of a duplicative submission, provided that the referenced submission satisfies these instructions.
7. Unless otherwise specified, these information requests cover the period from 1943 until the present.
8. The information requested in Requests #1 through #15, inclusive, shall be submitted to NMED no later than September 23, 2002.
9. Responses shall be submitted to:

James Bearzi  
Chief  
New Mexico Environment Department  
Hazardous Waste Bureau  
2905 Rodeo Park Drive East  
Building 1  
Santa Fe, New Mexico 87505-6303

## DEFINITIONS

Terms used in these information requests shall have the following definitions:

1. Except as otherwise specifically provided herein, any terms defined in section 74-4-3 of the HWA, section 1004 of RCRA, 42 U.S.C. § 6903, or the hazardous waste regulations at 40 C.F.R. § 260.10, have the meanings provided therein.

2. The term "accelerator produced radioactive material" means any material made radioactive by exposing the material to the radiation from a particle accelerator (e.g., Cockcroft-Walton, Betatron, Cylcotron, or other accelerator types).
3. The term "document" means any object that records, stores, or presents information, and includes without limitation all writings, letters, memoranda, electronic mail (email), records, charts, tables, computer printouts, data, or information of any kind, formal or informal, whether wholly or partially handwritten or typed, whether in computer format, memory, or storage device, or in hard copy, including any form or format of these.
4. The term "hazardous waste" has the meaning provided in section 1004(5) of RCRA, 42 U.S.C. § 6903(5), and section 74-4-3.I of the HWA.
5. The term "mixed waste" means waste that contains both hazardous waste and source, special nuclear, or by-product material regulated under the Atomic Energy Act of 1954.
6. The term "site" means any solid waste management unit, area of concern, area of contamination, "potential release site," or other place or area where wastes or hazardous constituents have come to be located.
7. The terms "and" and "or" shall be construed either disjunctively or conjunctively as necessary to make the request inclusive rather than exclusive.
8. Words in the singular shall be construed in the plural, and vice versa as necessary to make the request inclusive rather than exclusive.

## **INFORMATION REQUESTS**

NMED hereby requests that DOE and UC jointly furnish to NMED the following information relating to the LANL Facility:

1. Identify and describe each particle accelerator that has operated or is currently in operation at the LANL Facility. Include in your response, at a minimum, the following information:
  - a) A description of the accelerator, including the type of accelerator, its manufacturer, model number, and rating;
  - b) All building designation (i.e., structure identifiers);
  - b) The dates during which the accelerator was operated;
  - c) The location at which the accelerator operated; and a Facility map(s) depicting such locations.

2. For each particle accelerator identified in response to Request #1, please describe the chemical composition of each target used at that accelerator.
3. For each target described in response to Request #2, please provide a description of all radionuclides produced from the irradiation of the target by the particle accelerator. Include in your response the half-lives and daughter products of each such radionuclide.
4. For each particle accelerator identified in response to Request #1, please provide a detailed description of each solid or hazardous waste, hazardous waste constituent, mixed waste, or radioactive waste generated by or associated with the operation of the accelerator, including targets that have been discarded. Include in your response, at a minimum, the following information:
  - a) A description of the radioactive, chemical, and physical properties of each such waste;
  - b) An identification of any hazardous waste characteristics in each such waste, *i.e.*, ignitability under 40 C.F.R. § 261.21; corrosivity under 40 C.F.R. § 261.22; reactivity under 40 C.F.R. § 261.23; or toxicity under 40 C.F.R. § 261.24;
  - c) An identification of any hazardous constituents in each such waste;
  - d) A description of all radionuclides in each such waste, including the radioactive decay chains of the radionuclides, and the half-lives of both the radionuclides and their daughter products;
  - e) The dates during which each such waste was generated; and
  - f) The quantity of each such waste generated.
5. Except to the extent already described in response to Request #4, please provide a detailed description of each solid or hazardous waste, hazardous waste constituent, mixed waste, or radioactive waste that is "accelerator produced radioactive material," as defined herein, and has been transported to or managed at the LANL Facility. Include in your response, at a minimum, the information requested in Request #4(a) through (f).
6. For each waste identified in response to Request #4 or #5, please describe the generation, treatment, storage, and disposal of such wastes. Include in your response, at a minimum, the following information:
  - a) The quantity of each such waste;
  - b) A description of the methods used to store each such waste prior to disposal;

- c) The location at which each such waste was stored prior to disposal, and provide a Facility map(s) depicting such location(s);
  - d) A description of any method used to treat each such waste prior to disposal;
  - e) A description of the methods used to dispose of each such waste, including the disposal of treatment residues; and
  - f) The location at which such waste was disposed, including an identification of any solid waste management unit, area of concern, area of contamination, or "potential release site," and provide a Facility map(s) depicting such location(s).
7. For each waste or waste stream identified in response to Request #4 or #5 that was or has been discharged through an outfall, please provide the following information:
- a) A description of the radioactive, chemical, and physical properties of each such discharge;
  - b) The volume of each such discharge;
  - c) The dates during which each such discharge occurred;
  - d) An identification of any treatment plant(s) and/or treatment processes;
  - e) The location of each such discharge, including an identification of any designated outfall, and provide a Facility map(s) depicting such location(s); and
  - f) The method and location of the disposal of any treatment residue, and provide a Facility map(s) depicting such location(s).
8. For each particle accelerator identified in response to Request #1, please identify all permits associated with the accelerator or with wastes generated by or in association with the operation of the accelerator. Include in your response, at a minimum, the following information:
- a) The permit number;
  - b) The program or statute under which the permit was issued; and
  - c) The dates the permit was in effect.
9. For each particle accelerator identified in response to Request #1, please provide copies of all results of analysis of environmental samples associated with the accelerator, or of wastes generated by or in association with operation of the accelerator, including air, surface water, ground water, soil, sediment, rock, waste, wastewater, influent, effluent, or

treatment residue. Provide a map depicting all environmental sampling locations. Include environmental samples collected down gradient of associated outfalls and disposal areas.

10. Please provide a detailed description and status of the proposed accelerator transmutation of waste project.
11. Please provide a detailed description of each waste proposed for treatment under the accelerator transmutation of waste project. Include in your response, at a minimum, the following information:
  - a) A description of the radioactive, chemical, and physical properties of each such waste;
  - b) An identification of any hazardous waste characteristics in each such waste, *i.e.*, ignitability under 40 C.F.R. § 261.21; corrosivity under 40 C.F.R. § 261.22; reactivity under 40 C.F.R. § 261.23; or toxicity under 40 C.F.R. § 261.24;
  - c) An identification of any hazardous constituents in each such waste;
  - d) A description of all radionuclides in each such waste, including the radioactive decay chains of the radionuclides, and the half-lives of both the radionuclides and their daughter products;
  - e) The source of each such waste, including whether the radionuclides were reactor produced or accelerator produced;
  - f) The quantity of each such waste to be treated;
  - g) A list of potential byproduct hazardous, solid, mixed and/or radioactive wastes and residues produced during the treatment process;
  - h) The quantity of the resulting waste streams produced as a residue or byproduct of the treatment process; and
  - i) The proposed locations of disposal of all waste (including discarded targets) generated by this project.
12. Please identify each person who provided information used in responding to these requests. Provide each person's full name, title, and business address. Indicate the request that the person provided information in response to.

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Thank you for your cooperation in this matter. If you have any questions please contact John Young of my staff at (505) 428-2538.

Sincerely,



James P. Bearzi

Chief

Hazardous Waste Bureau

cc: G. Lewis, NMED W&WMD  
D. Cobrain, NMED HWB  
J. Kieling, NMED HWB  
J. Young, NMED HWB  
C. Will, NMED HWB  
J. Parker, NMED DOE OB  
S. Yanicak, NMED DOE OB  
J. Davis, NMED SWQB  
M. Leavitt, NMED GWQB  
C. de Saillan, NMED OGC  
L. King, EPA 6PD-N  
J. Vozella, DOE OLASO, MS A316  
E. Trollinger, DOE OLASO, MS A316  
G. Turner, DOE OLASO, MS A316  
B. Ramsey, LANL RRES-DO, MS J591  
D. McInroy, LANL RRES-ER, MS M992  
M. Kirsch, LANL RRES-ER, MS M992  
D. Erickson, LANL RRES-WQH, MS K491  
J. Ellvinger, LANL RRES-SWRC, MS K490  
G. Bacigalupa, LANL RRES-SWRC, MS K490

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