



BILL RICHARDSON
Governor
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Lieutenant Governor

TAIL
NEW MEXICO
ENVIRONMENT DEPARTMENT

Ground Water Quality Bureau

Harold Runnels Building
1190 St. Francis Drive
PO Box 5469, Santa Fe, NM 87502-5469
Phone (505) 827-2900 Fax (505) 827-2965
www.nmenv.state.nm.us



RON CURRY
Secretary
JON GOLDSTEIN
Deputy Secretary

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

September 4, 2009

Anthony R. Grieggs, Group Leader
Environmental Protection Division
Water Quality & RCRA (ENV-RCRA)
P.O. Box 1663, Mail Stop K490
Los Alamos, NM 87545



RE: Response to Notice of Intent to Discharge; Discharge Permit Not Required for Permeable Reactive Barrier (PRB) Installation, AI:856 (PRD20090003)

Dear Mr. Grieggs:

The New Mexico Environment Department (NMED) received a Notice of Intent on June 30, 2009 (copy enclosed) for the one-time discharge of ground water from dewatering activities required for the geophysical test pit characterization and installation of the permeable reactive barriers being installed for the treatment of high explosives and barium in Canon de Valle pursuant to the NMED approved Corrective Measures Implementation Plan for Consolidated Unit 16-021(c)-99, Revision 1 (July 2007). The notice satisfies the requirements of Subsection A of 20.6.2.1201 NMAC of the New Mexico Water Quality Control Commission (WQCC) Regulations (20.6.2 NMAC). The proposed discharge is located in Technical Areas (TA) 9 and 16, Los Alamos National Laboratory, Los Alamos County.

Based on the information provided in your Notice of Intent, NMED has determined that a Discharge Permit is not required as long as the discharge is as described. A Discharge Permit is not required at this time because the information provided indicates it is unlikely that the discharge will adversely affect ground water quality.

Although a Discharge Permit is not being required for this discharge at this time, you are not relieved of liability should your operation result in actual pollution of surface or ground waters. Further, this decision by NMED does not relieve you of your responsibility to comply with any other applicable federal, state, and/or local laws and regulations, such as zoning requirements, plumbing codes and nuisance ordinances. Please be advised that you must obtain a response to the Notice of Intent from the NMED Surface Water Quality Bureau to ensure conformance with regulations for the protection of surface water.



Anthony R. Grieggs, AI:856 (PRD20090003)

September 4, 2009

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If at some time in the future you intend to change the amount, character or location of your discharge, or if observation or monitoring shows that the discharge is not as described in your Notice of Intent, you must file a revised Notice of Intent with the Ground Water Quality Bureau.

If you have any questions, please contact either Jennifer Fullam at (505) 827-2909 or George Schuman, Program Manager of the Ground Water Pollution Prevention Section, at (505) 827-2945.

Sincerely,



William C. Olson, Chief
Ground Water Quality Bureau

WO:JF

Enc: Notice of Intent, dated June 25, 2009

cc: Robert Italiano, District Manager, NMED District II (w/ enc)
NMED Santa Fe Field Office(w/ enc)
NOI File(w/ enc)
County File (w/ enc)
Glenn Saums, NMED SWQB(w/ enc)
James Bearzi, NMED HWB(w/ enc)
Steven Yanicak, NMED-DOE-Oversight Bureau (w/ enc)
Gene Turner, LASO-EO, Los Alamos National Laboratory, A316, Los Alamos, NM
87545 (w/o enc)
Hai Shen, LASO-EO, Los Alamos National Laboratory, MS A316, Los Alamos, NM
87545 (w/o enc)
Michael B. Mallory, PADOPS, Los Alamos National Laboratory, A102, Los Alamos,
NM 87545 (w/o enc)
Chris Cantwell, ADESHQ, Los Alamos National Laboratory, K491, Los Alamos, NM
87545 (w/o enc)
Michael Saladen ENV-RCRA, Los Alamos National Laboratory, K490, Los Alamos,
NM 87545 (w/o enc)
Don Hickmott, EES-14, Los Alamos National Laboratory, MS D462 , Los Alamos,
NM 87545 (w/o enc)
John McCann, ADEP-PM, Los Alamos National Laboratory, MS M992 , Los Alamos,
NM 87545 (w/o enc)
Randy Johnson, ENV-EAQ, Los Alamos National Laboratory, MS M992 , Los
Alamos, NM 87545 (w/o enc)
Bob Beers, ENV-RCRA, Los Alamos National Laboratory, MS K497, Los Alamos,
NM 87545 (w/o enc)



GROUND WATER

JUN 30 2009

BUREAU

Environmental Protection Division
Water Quality & RCRA Group (ENV-RCRA)
P.O. Box 1663, Mail Stop K490
Los Alamos, New Mexico 87545
(505) 667-0666/FAX: (505) 667-5224

Date: June 25, 2009
Refer To: ENV-RCRA-09-116
LAUR: 09-03903

Mr. William C. Olson, Chief
Ground Water Quality Bureau
New Mexico Environment Department
Harold Runnels Building
1190 St. Francis Dr.
P.O. Box 2611
Santa Fe, New Mexico 87502

Mr. Glenn Saums
Surface Water Quality Bureau
New Mexico Environment Department
Harold Runnels Building
1190 St. Francis Dr.
P.O. Box 2611
Santa Fe, New Mexico 87502

Dear Mr. Olson and Mr. Saums:

**SUBJECT: NOTICE OF INTENT TO DISCHARGE, GROUNDWATER FROM
PERMEABLE REACTIVE BARRIER (PRB) INSTALLATION**

Enclosed is a Notice of Intent to Discharge (NOI) that has been prepared for submittal to the New Mexico Environment Department (NMED) pursuant to 20 NMAC 6.2.1201 of the New Mexico Water Quality Control Commission (NMWQCC) Regulations. This NOI is being submitted to provide coverage for the one-time discharge of groundwater from construction dewatering activities during the installation of the Permeable Reactive Barrier (PRB) in Cañon de Valle. This work is being performed as specified in the New Mexico Environment Department-approved Corrective Measures Implementation Plan for Consolidated Unit 16-021(c)-99, Revision 1 (July 2007). An electronic copy of the Corrective Measures Implementation Plan has been provided in the enclosed CD.

Please contact me at (505) 667-7969 if you have questions or require additional information.

Sincerely,

Bob Beers
Water Quality & RCRA Group

BB/lm

Enclosures: a/s

Cy: James Bearzi, NMED/HWB, Santa Fe, NM, (NOI)
Gene Turner, LASO-EO, (NOI), A316
Hai Shen, LASO-EO, (NOI), A316
Steve Yanicak, LASO-GOV, (NOI), J993
Michael B. Mallory, PADOPS, w/o enc., A102
Chris Cantwell, ADESHQ, w/o enc., K491
Mike Saladen, ENV-RCRA, (NOI), K490
Jake Meadows, ENV-RCRA, (NOI), K490
Don Hickmott, EES-14, (NOI), D462
John McCann, ADEP-PM, (NOI), M992
Randy Johnson, ENV-EAQ, (NOI), M992
ENV-DO, File, w/o enc., J978
ENV-RCRA, File, w/enc., K490
IRM-RMMSO, w/enc., A150



1. Name and mailing address of person proposing to discharge:

Los Alamos National Laboratory
PO Box 1663, Mail Stop K490
Los Alamos, NM 87545
Attention: Robert Beers
Water Quality & RCRA Group

Work Phone: 505-667-7969
Cell/Home Phone: NA
Fax: 505-665-9344
Email: bbeers@lanl.gov

JUN 30 2009

2. Name of facility:

Los Alamos National Laboratory (LANL or the Laboratory)

BUREAU

3. Physical location of discharge (if applicable, give street address, township, range, section, distance from closest town or landmark, directions to facility, location map):

See Location Map, Figure 1.1-1, on Page 37 of the Corrective Measures Implementation Plan for Consolidated Unit 16-021(c)-99, Revision 1, on the enclosed CD.

4. Type of operation generating the discharge (e.g., truck wash, food processing plant, restaurant, etc.):

The Laboratory intends to install a Permeable Reactive Barrier (PRB) in Cañon de Valle for the treatment of HE and barium. Construction dewatering will be required during two phases of the project:

1. Prior to installation of the PRB, three geophysical test pits will be excavated along the length of the PRB. Dewatering of the test pits will be necessary to perform geophysical testing and characterization. The test pits will confirm the depth to tuff and determine the extent of weathering or fracturing of the tuff. Data from the test pits will be used to finalize the design of the PRB
2. Dewatering during installation of the PRB's groundwater diversion wall and reactive cell.

This project is being performed as specified in the enclosed New Mexico Environment Department-approved Corrective Measures Implementation Plan for Consolidated Unit 16-021(c)-99, Revision 1.

3. Source(s) of the discharge. Describe how the wastewater, sludge, or other discharges processed and/or disposed at your facility are generated. Identify all sources. Attach additional pages if needed: Water captured during dewatering will be containerized, held until the PRB is operational, and then returned to the watercourse approximately 200 ft upstream of the PRB. This is one-time discharge. BMPs will be utilized to minimize/eliminate erosion impacts. A Storm Water Pollution Prevention Plan (SWPPP) will be implemented for the project.. See the detailed description of the PRB on Pages 19-27 of the Corrective Measures Implementation Plan for Consolidated Unit 16-021(c)-99, Revision 1.

4. Expected contaminants in the discharge (e.g., nitrate-nitrogen, metals, organic compounds, salts, etc.) Include estimated concentration if known, and copies of results of laboratory analyses, if available: Enclosure 1, Tables 1.0-3.0, presents the analytical results from the sampling of monitoring well CdV 16-02658, an alluvial groundwater well located next to the PRB and closely representing water captured during construction dewatering.

- Table 1.0 presents the analytical results from 2008-2009 for NMWQCC 3103 groundwater contaminants. Barium concentrations—5.7 mg/L to 7.7 mg/L—at CdV 16-02658 exceeded the NM WQCC 3103 standard of 1.0 mg/L. All other NMWQCC 3103 contaminants were below regulatory limits.
- Table 2.0 presents all analytical detections from 2005-2009 for high-explosives. RDX concentrations have exceeded the EPA risk level of 6.1 µg/L.
- Table 3.0 presents all analytical detections of VOCs and SVOCs from 2005-2009. No VOCs or SVOCs exceed NMWQCC groundwater standards.

The target PRB groundwater treatment goals are 6.1 µg/L for RDX and 1.0 mg/L for barium. In May 2009, the Laboratory submitted a "Contained-In" request to the NMED-HWB for listed contaminants detected in spring and alluvial waters since 1995 (Enclosure 2). The HWB's response to the "Contained-In" request is pending.

5. Describe all components of wastewater processing, treatment, storage, and disposal system (e.g., grease interceptor, lagoon, septic tank/leachfield, etc.) Include sizes, site layout map, plans and specifications, etc. if available:

Water pumped from the test pits and from the diversion wall and reactive cell excavations will be containerized on-site in poly storage tanks and then returned to the watercourse approximately 200 ft upstream of the PRB once it is operational.

6. Estimated maximum daily discharge volume in gallons per day (or other units): unknown

7. Estimated depth to ground water (ft): Actual volume of groundwater pumped from dewatering activities is unknown. Expected volumes to be less than 1000 gal.

Signature: AR Grieggs Title: Group Leader
 Printed name: Anthony R. Grieggs Date: 6/29/09

Please return this form to:
NMED Ground Water Quality Bureau
P.O. Box 5469
Santa Fe, New Mexico 87502-5469

Telephone: 505-827-2900
Fax: 505-827-2965