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RYAN FLYNN
Cabinet Secretary

BUTCH TONGATE
Deputy Secretary

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

September 22, 2015

Mr. Gene Turner, DOE/AIP/POC
U.S. Department of Energy
Los Alamos Site Office, MS A316
3747 West Jemez Road
Los Alamos, NM 87544

Ms. Alison Dorries, ENV Division Director
Los Alamos National Security, LLC
Los Alamos National Laboratory
P.O. Box 1663, MS K404
Los Alamos, NM 87544

RE: Response to Notice of Intent to Discharge; Discharge Permit Not Required to Add Tracers to Ground Water at Technical Area (TA) 16, AI:856 (PRD20150013)

Dear Mr. Turner and Ms. Dorries:

The New Mexico Environment Department (NMED) received a Notice of Intent on July 29, 2015 to deploy tracers sodium naphthalene sulfonates, sodium naphthalene disulfonates, sodium naphthalene trisulfonates, and sodium bromide to perched-intermediate groundwater via groundwater wells located at Cañon de Valle. 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 at the Los Alamos National Laboratory TA-16 in Section 29, T19N, R06E, Los Alamos County.

The proposed/exempt discharges are briefly described as follows:

- Two grams of sodium (Na)-1 naphthalene sulfonates (NS) dissolved in approximately 300 gallons of potable water will be deployed to well R-25b.
- Two grams of Na-1 NS dissolved in approximately 300 gallons of potable water will be deployed to well CdV-9-1(i) Screen 2.
- Two grams of Na-2 NS dissolved in approximately 300 gallons of potable water will be deployed to well CdV-16-1(i).
- Forty kilograms (kg) of Na-1,6 naphthalene disulfonate (NDS) and 150 kg of sodium bromide (NaBr) dissolved in approximately 12,000 gallons of potable water will be deployed to well R-25b. The well will be flushed with approximately 300 gallons of potable water after paired tracer deployment. This is the primary location of paired tracer NDS+NaBr.

- Forty kg of Na-1,5 NDS dissolved in approximately 12,000 gallons of potable water will be deployed to well CdV-16-1(i). The well will be flushed with approximately 300 gallons of potable water after tracer deployment. This is an alternate location of paired tracer NDS+NaBr.
- Twenty-five kg of Na-1,3,6 naphthalene trisulfonate (NTS) dissolved in approximately 6,000 gallons of potable water will be deployed to well CdV-9-1(i), Piezometer 1. The well will be flushed with approximately 300 gallons of potable water after tracer deployment.
- Twenty-five kg of Na-1,3,5 NTS dissolved in approximately 6,000 gallons of potable water will be deployed to well CdV-9-1(i), Piezometer 2. The well will be flushed with approximately 300 gallons of potable water after tracer deployment.
- Forty kg of Na-2,6 NDS dissolved in approximately 12,000 gallons of potable water will be deployed to well CdV-9-1(i), Screen 1. The well will be flushed with approximately 300 gallons of potable water after tracer deployment. This is an alternate location of paired tracer NDS+NaBr.

Selection of the paired tracer deployment location is dependent of the dilution test results. When the dilution test results become available, a decision will be made on which of the three locations is most appropriate.

Anticipated recovery of the tracers is expected to be <2%.

Based on the information provided in the NOI, 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 groundwater quality.

Although a Discharge Permit is not being required for this discharge at this time, you are not relieved of liability should this operation result in actual pollution of ground or surface 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, zoning requirements, plumbing codes, and nuisance ordinances.

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 Steven Huddleson, Program Manager of the Ground Water Pollution Prevention Section, at (505) 827-2936.

Sincerely,

A handwritten signature in black ink, appearing to read "Steven Huddleson", followed by the word "for" written in a smaller, cursive script.

Michelle Hunter, Bureau Chief
Ground Water Quality Bureau

Mr. Turner and Ms. Dorries, AI:856 (PRD20150013)

September 22, 2015

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MH:GK

enc: Notice of Intent received July 29, 2015

cc: Robert Italiano, District Manager, NMED District II (electronic copy w/ enclosure)
Steven Huddleson, NMED GWQB (electronic copy)
Greg Huey, NMED GWQB (electronic copy)
Gerald Knutson, NMED GWQB (electronic copy)
NMED Santa Fe Field Office (electronic copy w/ enclosure)
NOI File
County File
James Hogan, NMED SWQB (electronic copy)
Sarah Holcomb, NMED SWQB (electronic copy)
Erin Trujillo, NMED SWQB (electronic copy)
John Kieling, NMED HWB (electronic copy)
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