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16
**NEW MEXICO
ENVIRONMENT DEPARTMENT**

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RYAN FLYNN
Cabinet Secretary

BUTCH TONGATE
Deputy Secretary

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

July 8, 2015

Allison M. Dorries
Division Leader
Environmental Protection Division
Los Alamos National Security LLC
P.O. Box 1663 K490
Los Alamos, New Mexico 87545

Gene E. Turner
Environmental Permitting Manager
National Security Missions
U.S. Department of Energy
3747 West Jemez Road
Los Alamos, New Mexico 87545

RE: Response to Notice of Intent to Discharge; Discharge Permit Not Required to Add Tracer to Drilling Water; AI-856

Dear Ms. Dorries and Mr. Turner:

The New Mexico Environment Department (NMED) received a Notice of Intent on June 18, 2015 to introduce one of three tracers (sodium 1,5-naphthalene disulfonate, sodium bromide or sodium fluorescein) to be added to drilling water in regional aquifer monitoring well R-67. The tracer would be added to distinguish native ground water from potable water introduced as part of drilling water. All recovered water will be stored in a lined drilling pit and evaporated. The proposed discharge is located at the Los Alamos National Laboratory Technical Area TA-61 in Township 19N, Range 6E, Section 22 in 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.



The proposed/exempt discharge is briefly described as follows:

One of the proposed tracers would be added to the drilling water used for advancing the borehole between coring runs in order to distinguish native water (in subsequent core runs) from potable water introduced as part of the drilling operations. A total of one hundred and twenty feet (120 ft) of coring over four intervals are proposed; 210-230, 565-595, 1150-1200, and 1235-1255 ft. below ground surface. Approximately 95% of the drilling water (and tracer) is typically recovered with this type of drilling operation. The water will be stored in a lined drilling pit for evaporation. The following concentrations are proposed for the three potential tracers:

- Sodium 1,5-naphthalene disulfide - approximately 23 grams of the tracer material introduced in approximately 6,000 gallons of solution resulting in a concentration of the tracer of 1 mg/L with anticipated recovery of 95%;
- Sodium bromide - approximately 230 grams of the tracer material introduced into approximately 6,000 gallons of solution resulting in a concentration of the tracer of 10 mg/L with anticipated recovery of 95%; or
- Sodium fluorescein - approximately 23 grams of the tracer material introduced into approximately 6,000 gallons of solution resulting in a concentration of the tracer of 1 mg/L with anticipated recovery of 95%.

Although a Discharge Permit is not being required 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. This activity is being conducted under the regulatory oversight of the Hazardous Waste Bureau, who shall provide continuing oversight and post-application monitoring.

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.

July 8, 2015
Allison Dorries
Gene Turner
Page 3 of 3

If you have any questions, please contact Steve Huddleson, Program Manager of the Ground Water Pollution Prevention Section, at (505) 827-2936.

Sincerely,



Michelle Hunter, Acting Chief
Ground Water Quality Bureau

MH:SMH

cc: Steve Huddleson, Program Manager (electronic copy)
Steve Yanicak, DOE Oversight Bureau (electronic copy)
John Kieling; Hazardous Waste Bureau
NOI File
County File
Others