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GOVERNOR

State of New Mexico
ENVIRONMENT DEPARTMENT
Ground Water Quality Bureau

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MARK E. WEIDLER
SECRETARY

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CERTIFIED MAIL - RETURN RECEIPT REQUESTED

October 20, 1997

Steven Rae, Group Leader
ESH-18, Water Quality and Hydrology Group
Los Alamos National Laboratory, MS-K497
Los Alamos, New Mexico 87545

RE: Additional Information, Generic Notice of Intent, Los Alamos
National Laboratory, Potable Water

Dear Mr. Rae:

The New Mexico Environment Department (NMED), Ground Water Quality Bureau (GWQB) has received and reviewed the draft Generic Notice of Intent (NOI) submitted by ESH-18. The GWQB requests information on the following items prior to making any formal decisions on regulating wastewater from potable water sources.

2. The location of the discharges from the Water Supply System (WSS), Water Line Disinfection (WLD), Steam Distribution and Condensate Return Systems (SDCRS) and Fire Protection System (FPS) is generally stated as within the boundaries of the Los Alamos National Laboratory (LANL). The location of large or continuous discharges was not provided nor was other information illustrating the proximity of the discharges to Potential Release Sites (PRs).

Please submit a detailed map with the locations of individual or continuous (discharges through time) discharges greater than 10,000 gallons per year. The map should include locations of PRs and other facilities where discharged water should be diverted in order to eliminate the mobilization of any Water Quality Control Commission (WQCC) Regulation 3103 constituent.

3. The means of discharge from the WSS, WLD, SDCRS, and FPS states that discharges will be made to mesa tops or into various tributaries to the Rio Grande. Information was not provided stating how discharged water will be prevented from



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flowing through PRSs.

Please submit the methods to be utilized to keep any discharged water from flowing through PRSs or other locations where there is the potential to mobilize WQCC 3103 constituents.

4. a. The estimated concentrations of contaminants in the discharge from the WLD and the SDCRS was not adequately provided. It is stated in the NOI that Calcium Hypochlorite or Sodium Hypochlorite Solution will be used to disinfect lines and other related facilities. It is not stated in the NOI if chloride will be a byproduct of either disinfectant, and if so, what the expected residual chloride concentrations will be.

Please submit estimated chloride concentrations in discharge water that has been impacted with disinfectant.

- b. The draft NOI states that steam condensate has been analyzed from previous releases and submitted to the NMED and that the analysis is attached. Analytical data was not included with the draft NOI and any data previously submitted may not adequately represent all discharges from SDCRS. The GWQB has not seen any evidence demonstrating that Total Dissolved Solids (TDS) do not concentrate in steam condensate or that other constituents are not introduced.

The GWQB recommends that conductivity readings of wastewater at 25 degrees C be taken prior to every discharge. If the conductivity is greater than 1400 umhos/cm, the wastewater should be analyzed for TDS. If wastewater is greater than 1000 mg/L TDS, the wastewater should be analyzed for general chemistry and the ionic balance should be calculated. If cations and anions do not balance, wastewater should be analyzed for metals. Wastewater with concentrations greater than WQCC 3103 concentrations should not be discharged without submitting an NOI to NMED and LANL has received a determination from NMED.

5. The NOI states that the type of operations from which discharges are derived from the SDCRS are 12 major leaks with an approximate discharge of 18,000,000 gallons per year. Another source of wastewater is steam condensate and storm water runoff which accumulates in manholes or vaults. As stated previously, locations of discharges, methods to insure that discharged water will not migrate to or through PRSs, and water chemistry have not been provided.

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Please submit the information requested in numbers 2-4 above. The GWQB recommends that all pipeline leaks be repaired for source control of discharged water that could eventually cause any contaminants to migrate. Samples of water from the leaks should be taken at least monthly and samples should be taken from manholes and vaults prior to discharge. Conductivity should be measured and the procedures outlined in #4 above should be followed if conductivity is greater than 1 400 umhos/cm at 25 degrees C for both pipeline leaks and water collected in manholes and vaults.

8. Notification requirements for documenting and reporting discharges to NMED are outlined in #8 of the Generic NOI. The GWQB requests that sampling procedures outlined in #4 above are followed prior to any discharge, and conductivity is recorded.

The NMED, GWQB will respond to the Generic NOI when the following information has been addressed and submitted to the GWQB. If you have any questions, please call me at 827-0166.

Sincerely,

Phyllis Bustamante

Phyllis Bustamante
Water Resource Specialist
Pollution Prevention Section

xc: James Bearzi, District Manager, NMED District II
Barbara Hoditschek, SWQB
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