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October 23  
~~September 24~~, 1996

Mr. Steven R. Rae, Group Leader, ESH-18  
Water Quality and Hydrology Group  
Los Alamos National Laboratory, MS K497  
Los Alamos, NM 87545

Ref: Corrective Action Report for TA-18 Septic Tank Leach Field

Dear Mr. Rae:

The Ground Water Quality Bureau (GWQB) of the New Mexico Environment Department (NMED) has reviewed Los Alamos National Laboratory's (LANL) Corrective Action Report for TA-18 Septic Tank Leach Field dated June 25, 1996 (Ref: ESH-18/WQ&H-96-0333). The GWQB hereby approves the report as an interim corrective action proposal pursuant to 20 NMAC 6.2 Section 1203.A.7 and subject to the following comments and conditions:

1) 1.0 Introduction

LANL states that the Water Quality Control Commission (WQCC) standard for 1,2 dichloroethane (EDC) is 10 mg/l. The correct numerical standard for EDC is 0.01 mg/l (WQCC 3103.A).

2) 3.3.2.1. Alluvial Aquifer

Please reference the data that suggests that no perched aquifer(s) exists between the shallow alluvial aquifer and the main aquifer.

3) 3.4 Nature of Observed Contamination (3rd Paragraph)

LANL presumes that EDC is the result of the chemical or biological breakdown of TCE. The GWQB is not aware, either through literature review or experience, that EDC is a breakdown product of TCE. Please state your source for this information. Has LANL pursued the possibility of leaking fuel tanks being the source of EDC contamination?

4) 3.4 Nature of Observed Contamination (4th Paragraph)

Based on the above mentioned degradation pathway of TCE to EDC, LANL concludes that the EDC present in groundwater is a result of discharges of organic solvents to the septic tank/leachfield

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system. This conclusion is erroneous if EDC is not a breakdown product of TCE.

5) 3.5.2 Site Investigation (1st Paragraph)

Because of the uncertainty of the source of the EDC contamination, a ground water monitoring point must be installed upgradient of the septic tank/leachfield system. An upgradient monitoring point is necessary to demonstrate that the septic tank/leachfield system is the source of ground water contamination at TA-18.

6) 3.5.2 Site Investigation (2nd Paragraph)

LANL proposes to screen the monitoring wells over the thickness of the shallow aquifer. In addition to screening in the saturated zone, NMED requires that monitoring wells be screened above the water table, allowing for seasonal water table fluctuations.

7) 3.5.2 Site Investigation (2nd Paragraph)

Because of the seasonal variability in aquifer characteristics, such as depth to water and local ground water gradient (see Section 3.3.2.1), the GWQB requests that LANL collect ground water samples quarterly for a period of no less than two years, as opposed to two sampling events over a six month period. Please submit the results of the sampling to NMED.

Thank you for your attention to the EDC contamination at TA-18. If you have further questions, please contact John Rogers of my staff at 827-2754.

Sincerely,



Dennis McQuillan, Program Manager, Remediation Section  
Ground Water Quality Bureau

DM:jbr

cc: Neil Weber, NMED, Chief, DOE OB  
Glenn Saums, NMED, Program Manager, SWQB  
Ken Zamora, DOE LAAO, MS A316  
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