copy for my technical corresp. file

Public Service Company of New Mexico

December 28, 1992

Certified Mail
Return Receipt Requested

Ms. Jane Cramer
New Mexico Environment Department
Hazardous and Radioactive Materials Bureau
525 Camino de Los Marquez
Santa Fe, NM 87502

Dear Ms. Cramer

Subject: Well Logs and Stratigraphic Cross Sections for Person Generating Station Corrective Action Directive Submittal, NMT360010342

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Jack D. Maddox, Director
Resources, Environmental and Nuclear Services

Enclosed please find material submitted in response to a letter from Mr. Ed Horst, of the New Mexico Environment Department, dated October 15, 1992. This referenced letter contained a requirement for submittal of four items (contingencies) prior to completion of the existing Corrective Action Directive Assessment Phase.

Contingency Number 4, well survey, was submitted to the NMED on November 30, 1992. Contingencies 1, 2 and 3 are contained in this submittal.

attached docs in DIR.

Alvarado Square
Albuquerque, New Mexico 87158
505/848-2700

Contingency Number 1 is a requirement for submittal of all cutting/core logs for wells drilled to date. For convenience we have included logs from wells drilled during the original site investigation in 1984. This submittal is complete up to well PSMW-24.

Contingency Number 2 is a requirement for submittal of stratigraphic cross sections. In a field meeting with Jane Cramer on December 9, 1992, it was agreed that three cross sections (one parallel to groundwater flow, and two perpendicular to groundwater flow) would suffice for completeness at this time. These cross sections are included.

Contingency Number 3 is a requirement for a calculation of the rate of contaminant migration. A rough estimate for the average migration rate during the life of the plume is contained in the enclosed METRIC cover letter. Unfortunately, we do not feel we have enough information about the leading edge of the plume at this time to determine its current rate of movement, nor do we feel confident in making any ~~predictions~~ estimates regarding past movement of the plume over time.

If you have any questions, please feel free to contact me at 848-2998.

Sincerely,

Ron Johnson

Ron D. Johnson
Sr. Environmental Scientist

RDJ:knh
enclosures

METRIC
Corporation ENVIRONMENTAL ENGINEERING AND SCIENCE

8429 WASHINGTON PLACE NE, SUITE A
ALBUQUERQUE, NEW MEXICO 87113
(505) 828-2801

December 23, 1992

Mr. Ron Johnson
Public Service Company of New Mexico
Alvarado Square
Albuquerque, New Mexico 87158

Dear Mr. Johnson:

As per your request, we have prepared the following material to address contingencies 1, 2, and 3 in Ed Horst's letter to you dated October 15, 1992. The responses are based on the letter and our recent conversations with Jane Cramer.

Enclosed Site Geologic Cross Sections A-A', B-B' and C'C' along with sample logs for monitoring well PSMW-1 through PSMW-24, PSMW-3B, PSMW-8B, PSMW-12B, PSMW-13B and PSMW-15B have been prepared to address contingencies 1 and 2. Graphic textural symbols have been added to the cross sections to make them easier to interpret. Flow lines are not included on the cross sections because sufficient data is not available to allow construction of flow lines. We have observed a vertical gradient in the aquifer only at the PSMW-3/3B location. No vertical gradient was observed at the other three well cluster locations, i.e, PSMW-8A/8B, PSMW-12A/12B and PSMW-13A/13B. The bulk of the data indicates that the flow lines are parallel with the water table within the upper 35 feet of the aquifer.

In response to contingency 3, we can estimate an average migration rate for the leading edge of the plume (assumed to be 5 ppb concentration) at Person Station. The chlorinated solvents may have reached the aquifer beneath the waste tank in about 1980, and they have migrated to a point somewhat beyond monitoring well PSMW-27 by 1992. This represents a distance of about 2400 feet over a time of 12 years or an average migration rate of 200 feet per year. Based on the data that is currently available, we cannot determine the present or any past rates of migration. The leading edge of the plume might presently be moving at a rate which is greater than or less than 200 feet/year. The leading edge might even be moving back toward the source. When the leading edge monitoring wells have been completed, they can be used to determine the present rate and direction of plume migration.

If you have any questions or comments, please contact us.

Sincerely,

Gary L. Richardson, P.E.
Executive Vice President

GLR:kc

enclosures