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MEMORANDUM

TO: Benito Garcia, Bureau Chief

FROM: Jane Cramer, Technical Program *JC*

THROUGH: Ed Horst, Program Manager, and *EH*  
Steve Alexander, Technical Supervisor *SA*

DATE: January 31, 1993

RE: **Public Service Company of New Mexico (PNM)  
Person Generating Station progress update.**

January 25, 1993 meeting of HRMB with PNM to discuss status and plans of CAD tasks

Attendees:

Jane Cramer, Technical Program  
Ron Kern, Technical Program  
Steve Alexander, Technical Supervisor  
Ron Johnson, PNM  
Gary Richardson, Metric Corp., consultant to PNM

Hazardous and Radioactive Materials Bureau (HRMB) staff met with PNM, on January 25, 1993, to exchange information and ideas on the most recent results of plume characterization and discuss other tasks required by the Corrective Action Directive (CAD), agreed to by HRMB and PNM January 1992. The purpose of the CAD was to assess and remediate a volatile organic compound (VOC) plume in the groundwater at Person Station in Albuquerque. The PNM RCRA unit has a Post-Closure Care Permit.

HRMB staff met with Groundwater Remediation staff in November of 1992 and discussed the possibility of invoking a settlement agreement. A possible disadvantage to invoking a settlement agreement was that a transition between the current CAD and the proposed agreement could delay the plume characterization and remediation. Considerable progress has been made recently in the assessment of the Person Station plume.

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Status of off-site private well inventory and sampling

Private well sampling was conducted by HRMB & NMED District I staff on Wednesday, December 9, 1992, to sample sites of nearest groundwater use. Wells sampled were within a one-mile radius of PNM (see attached map). The results of chemical analyses of all groundwater samples showed no sign of groundwater contamination in these wells.

Status of plume characterization:

The leading edge of the plume is as yet unidentified. Drilling of three additional shallow monitoring wells is planned for the first two weeks in February. PNM is moving to complete characterization of the plume which is now 2400 feet in length as opposed to the originally determined 800 foot length. PNM also plans to install three monitoring wells to the depth of the contaminated production wells.

PNM CAD deliverables:

Due to the greater projected extent of the shallow plume, the existence of the deeper contamination, and the necessity to install additional wells, PNM is drafting a letter requesting an extension on CAD deliverables. Internal discussion has taken place on whether separate or combined timelines for the shallow plume and deep contamination investigations would be more advantageous. Currently HRMB staff is evaluating this situation.

The CAD deliverables as they stand are:

DEADLINES AND DELIVERABLES

April 10 -       1. Assessment Summary Report  
                  2. Potential Corrective Measures Technologies report  
then PNM has 60 days after NMED approval to submit:  
                  3. Corrective Action Program report (CAP).

Probable timeframe for assessment and then remedial action:  
Based on the days to completion called for in the CAD, and assuming the Phase II proposal is approved (this is the CAP), installation of CAP equipment begins December 1993. It is possible to speed this up somewhat (possibly several months) if reviews are accelerated and if PNM and NMED have few disagreements.

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### Analysis of threat to drinking water

As of January 1993, VOC's have been detected 2400 feet east of the former PNM waste oil tank location (see attached map). Unless there is contamination from another source (and there is no evidence of this), VOC's migrated 2400 feet east at some point in the past 12 years. The aquifer which has been contaminated is utilized regionally as the primary drinking water source for the City of Albuquerque and Bernalillo County, so, a drinking water source has been impacted.

Imminent impact to public health is a remote to non-existent threat, based on the apparent rate of spread of contaminants and the distance to currently utilized drinking water production wells. However, what may be a future drinking water supply has been impacted, and contamination might someday spread to currently utilized supplies.

Wells south and west of the former PNM waste oil tank location were tested as stated above and showed no sign of groundwater contamination. Kirtland Air Force Base (**KAFB**) and City of Albuquerque (**COA**) drinking water production wells lie north and north east of the VOC plume. The closest of these is a COA production well which lies 10,000 feet north-northeast of the former PNM waste oil tank location and from the known leading edge of VOC-contaminated groundwater. The closest KAFB well lies 13,000 feet from the waste oil tank location. These wells are not located directly down-gradient from the VOC plume. It is unclear, based on our current understanding of the hydrogeologic setting, whether contamination will reach these wells.

Work is still in progress on delineating the extent of the VOC plume. Information on rate of groundwater flow and rate of contaminant transport is also as yet ambiguous. A conservative guess might be a rate of contaminant movement of 200 feet per year in an eastward direction. Groundwater flow in this hydrogeological setting can range from inches up to 200 feet per year and contaminant transport may outstrip groundwater flow by a factor of 2. Important factors, such as permeability, effects of regional pumping, or, channeled deposits, can be varied and complex.

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Attachment: map showing VOC plume and water supply wells

cc: Benito Garcia, Bureau Chief  
Ed Horst, Program Manager  
Steve Alexander, Technical Supervisor  
Jane Cramer, Technical staff  
Tracy Hughes, Legal Counsel  
file: PNM/red/93

RIO GRANDE R.

