

SUMMARY OF PROPOSED PERMIT MODIFICATIONS

Public Service Company of New Mexico
Person Generating Station
EPA I.D. NO. NMT360010342

March 18, 1994

The information contained in this summary is the currently effective Permit conditions, the proposed Permit conditions to replace the currently effective Permit conditions, and a brief explanation of NMED'S basis for the changes proposed in the Post-Closure Care Permit for Person Generating Station.

1. **Proposal to disturb the closure cap to install a soil vapor extraction system designed to remediate remaining buried contaminants.**

Current Permit Condition:

II.M. RESTRICTION ON FUTURE USE

In accordance with HWMR-4, Section 206.D.2.g.(3), post closure use of the property listed in permit paragraph III.A. below, on or in which hazardous wastes remain after closure, shall not be allowed to disturb the integrity of the final cover, liner(s), or any other component of any containment system, or the function of the facilities's monitoring systems, unless the Permittee can demonstrate to the Director, by petition for a permit modification in accordance with HWMR-4, Section 302.M., that the disturbance:

1. is necessary to the proposed use of the property and will not increase the potential hazard to human health or the environment; or
2. Is necessary to reduce a threat to human health or the environment.

Proposed Permit Modification:

II.M. RESTRICTION ON FUTURE USE

The Permittee may install a dual-purpose soil vapor extraction (SVE) well through the final cover system as described in the Permit modification request from the Permittee dated October 8, 1993. The installation and operation of the SVE well shall meet the following performance standards:

1. No increase the potential hazard to human health or the environment;
2. Reduction of a threat to human health or the environment;
3. No leakage of surface water shall be allowed to occur around the well which might serve to drive contaminants lower in the vadose zone;
4. Air release of contaminants shall be in accordance with Bernalillo County air emission regulations; and
5. Wastes or contaminated media that are removed shall be managed as hazardous waste unless HWMR-7, Part II, Section 261.3(d) applies.

II.N. REMOVAL OF NOTATION ON DEED

The Permittee may in accordance with HWMR-7 Section V, Part 264 (c) request a Permit modification for:

1. the removal of the notation on the deed to the facility property or other instrument normally examined during title search; or
2. the addition of a notation to the deed or instrument indicating the removal of the hazardous waste.

Any Permit modification requested pursuant to Permit condition II.N.1. shall include a demonstration that the facility has met the clean closure requirement that no hazardous wastes or hazardous constituents remain in the soils, subsoils, or groundwater that could pose a threat human health or the environment. Any Permit modification requested pursuant to Permit condition II.N.2. shall include documentation that the contamination source has been removed.

NMED Basis for the Proposed Modification: PNM is currently responding to a Corrective Action Directive (CAD) issued by the New Mexico Environment Department (NMED) in September 1991. PNM submitted an Evaluation of Available Remedial Technologies and Conceptual design of Recommended Remedial Approach for the Person Generating Station dated November 1993. The Corrective Measures Proposal (CMP) intends to include remediation of the vadose zone contaminants beneath the Permitted unit using soil vapor extraction (SVE) technology. The SVE well will facilitate remediation of the contaminated soil and will also be used to pump underlying groundwater to the surface for treatment. The most rapid and effective way to effect remediation is to place the dual-purpose well in the center of the highest concentration of contamination.

2. Replacement of Point of Compliance Monitoring Wells

Current Permit Condition:

II.J.3. Point of Compliance. The groundwater protection standard in permit paragraph II.J.2. above shall apply at an imaginary vertical intercept with the first aquifer (approximately 117 feet deep) along a line drawn through wells PSMW-6, PSMW-8B, PSMW-8A and PSMW-5 down gradient of the closed disposal unit and an imaginary horizontal intercept, parallel to the water table and intercepting the screened interval of wells PSMW-3B and PSMW-8B.

Proposed Permit Modification:

II.J.3. Point of Compliance. The groundwater protection standard in permit paragraph II.J.2. above shall apply at an imaginary vertical intercept with the first aquifer (approximately 117 feet deep) along a line drawn through wells PSMW-6R, PSMW-8B, PSMW-8A, and PSMW-11 down gradient of the closed disposal unit and an imaginary horizontal intercept, parallel to the water table and intercepting the screened interval of wells PSMW-3B and PSMW-8B.

Current Permit Condition:

II.J.4.C HWMR-4, Section 206.D.1.j(6) is changed to require that monitoring wells PSMW-3B, PSMW-6, PSMW-8A, PSMW-8B, and PSMW-5 shall be sampled and analyzed only for volatile and semi-volatile organic constituents within ninety days of the determination of significant increase.

Proposed Permit Modification:

II.J.4.C HWMR-7, Part V, Section 264.99(g) is changed to require that monitoring wells PSMW-3B, PSMW-6R, PSMW-8A, PSMW-8B, and PSMW-11 shall be sampled and analyzed only for volatile and semi-volatile organic constituents within ninety days of the determination of the significant increase.

Current Permit Condition:

III.F.1 Designated Wells. The designated monitoring wells are PSMW-1 in the vicinity of the permitted unit and down gradient wells PSMW-3B, PSMW-6, PSMW-8A and PSMW-8B.

Proposed Permit Modification:

III.F.1 Designated Wells. The designated monitoring wells are PSMW-1R in the vicinity of the permitted unit and down gradient wells PSMW-3B, PSMW-6R, PSMW-8A, PSMW-8B, and

PSMW-11.

NMED Basis for the Proposed Modifications: The changes proposed in the three permit paragraphs above are for redesignating ground water monitoring wells. Due to the declining water table elevations at the facility monitoring wells PSMW-1R was installed to replace PSMW-1 in January 1993 and PSMW-5 and PSMW-6 will be dry within the next year. PNM will be unable to collect ground water samples as required by the permit unless replacement wells are designated in the permit. The change proposed for these permit conditions is to replace wells PSMW-1 with PSMW-1R, PSMW-5 with PSMW-11, and PSMW-6 with PSMW-6R to maintain the groundwater monitoring program at point of compliance. PSMW-1R and PSMW-11 are installed and PSMW-6R is to be installed within 15 feet of PSMW-6. Also PSMW-11 is proposed to be included as a designated well in permit paragraph III.F.1.

3. Changes in ground water sampling frequency

Current Permit Condition:

III.F.2.a. Sampling Frequency.

During detection monitoring, the designated wells shall be sampled and analyzed semi-annually. During compliance monitoring, the designated wells shall be sampled and analyzed quarterly. Water levels will be recorded prior to sampling.

Proposed Permit Modification:

III.F.2.a. Sampling Frequency.

During detection and compliance monitoring, the designated wells shall be sampled and analyzed semi-annually. During compliance monitoring the designated wells shall be sampled and analyzed quarterly when specified by the Director. Water levels will be recorded prior to sampling.

Current Permit Condition:

III.F.4.c. Data which exceed the maximum concentration limits in Table 1 and confirmed by resampling and reanalysis will trigger an assessment of the sampling program. If the anomalous data are not due to sampling or analytical error, replicate sampling of the affected well and other wells at the point of compliance will be conducted quarterly.

Proposed Permit Modification:

III.F.4.c. Data which exceed the maximum concentration limits in Table 1 and confirmed by resampling and

reanalysis will trigger an assessment of the sampling program. If the anomalous data are not due to sampling or analytical error, replicate sampling of the affected well and other wells at the point of compliance will be conducted semi-annually.

Current Permit Condition:

III.F.3.c. Monitor wells PSMW-3B, PSMW-6, PSMW-8A and PSMW-8B shall annually be sampled as above and quantitatively analyzed for volatile and semi-volatile organic compounds using EPA approved methods. Detection of organic constituents other than TCA, PCE or DCE shall be reported to the Director within seven days of receipt of the analytical results by the Permittee.

Proposed Permit Modification:

III.F.3.c. Monitor wells PSMW-1R and PSMW-7 shall annually be sampled as above and quantitatively analyzed for HWMR-7, Part V, Section 264, Appendix IX constituents. Detection of new constituents, not previously reported, shall be reported to the Director within seven days of receipt of the analytical results by the Permittee and shall be added to the ground water monitoring list in accordance with HWMR-7, Part V, Section 264.99(g).

NMED Basis for the Proposed Modifications: PNM is currently in compliance monitoring and corrective action. Many new wells were installed as a result of NMED directing PNM to conduct a corrective action program. Excessive sampling of groundwater monitoring wells with known contamination is not necessary. A twice yearly sampling and analysis program is considered adequate to track any variations in contaminant concentrations in groundwater. Frequency of monitoring during the compliance period is proposed to be changed from quarterly to semi-annual sampling to coordinate the Corrective Action Directive (CAD) monitoring wells sampling frequency with that required in the permit. The contamination source area monitoring wells PSMW-1R and PSMW-7 are proposed to be sampled once a year for a more complete list of hazardous constituents than that required by the current permit paragraph to determine if any new constituents are entering the groundwater. Any new constituents identified through this sampling will be added to the ground water monitoring list.

4. Changes proposed in the groundwater protection standard for protecting groundwater quality

Current Permit Condition:

II.J.4. Compliance Monitoring Period. The compliance period shall begin when the detection monitoring program indicates an increase above the concentrations of any parameter listed in Table 1 in any downgradient well, or

well PSMW-3B. An increase is defined as a change significant at the 95% confidence level from the background concentration for that parameter for that well. The change may be established by one resample and reanalysis for the parameter of concern.

Proposed Permit Modification:

II.J.4. Compliance Monitoring Period. The compliance period shall begin when the detection monitoring program indicates an increase above the concentrations of any parameter listed in Table 1 in any downgradient well, or well PSMW-3B. The change may be established by one resample and reanalysis for the parameter of concern.

Current Permit Condition:

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Table 1

Maximum Concentration Limits
(milligrams per liter)

WELL	TCA	PCE	DCE
PSMW-1	7.81	2.76	1.92
PSMW-2	10.48	3.35	1.57
PSMW-3	2.39	0.89	0.52
PSMW-3B	0.002	0.002	0.002
PSMW-4	0.002	0.002	0.002
PSMW-5	0.002	0.002	0.002
PSMW-6	0.022	0.070	0.022
PSMW-7	0.002	0.002	0.002
PSMW-8A	0.019	0.022	0.027
PSMW-8B	0.002	0.002	0.002

TCA = 1,1,1-trichloroethane
PCE = tetrachloroethylene
DCE = 1,1-dichloroethylene

Proposed Permit Modification:

Person Generating Station

Table 1

Maximum Concentration Limits
(parts per billion)

WELL	TCA	PCE	DCE
PSMW-1R	60	5	5
PSMW-3B	60	5	5
PSMW-11	60	5	5
PSMW-6R	60	5	5
PSMW-7	60	5	5
PSMW-8A	60	5	5
PSMW-8B	60	5	5

TCA = 1,1,1-trichloroethane

PCE = tetrachloroethylene

DCE = 1,1-dichloroethylene

Current Permit Condition:

II.J.5. Background Groundwater Quality. Background for PCE, TCA, and DCE is defined as the concentration for each well as shown in permit Table 2. Background for any other hazardous waste constituent is defined as the concentration of that constituent from a sample drawn from PSMW-7. Background values may be adjusted by the Director in accordance with HWMR-4, Section 302.M. as sufficient data are acquired to establish a new concentration.

Proposed Permit Modification:

This permit paragraph is proposed to be deleted from the permit.

NMED Basis for the Proposed Modification: The current permit conditions which are proposed to be changed were based on an Alternate Concentration Limit (ACL) in groundwater that was granted to PNM in 1988 when the original permit was issued. The ACL was based on the data provided by PNM that although contamination existed in the groundwater, the concentrations were expected to not increase or remain at the same levels. However, by 1991 the groundwater monitoring program indicated an increase in the concentrations of contaminants in the groundwater and the NMED

directed PNM to conduct a corrective action program to address the groundwater contamination.

The proposed change to permit paragraph II.J.4. is to disallow the use of ACLs and require that compliance monitoring to be triggered by a significant increase at the 95% confidence level from the concentrations in Table 1 and not based on background concentrations of the past ACLs listed in the current Table 2. Thus the background concentrations (ACLs) listed in Table 2 are proposed to be removed from the permit. Table 1 is proposed to be revised to require that the groundwater quality underneath PNM must meet the New Mexico Water Quality Standards for drinking water for the three constituents found in the groundwater. These drinking water standards are 60ppb for TCA, 5ppb for PCE, and 5ppb for DCE. Permit paragraph II.J.5 is proposed to be deleted from the permit because ACLs are being disallowed and all groundwater must meet the drinking water standards.

5. Specification of Compliance Period

Current Permit Condition:

II.J.4.d. The compliance period shall end when specified by the Director.

Proposed Permit Modification:

II.J.4.d. The compliance period shall end when specified by the Director in accordance with HWMR-7, Part V, Section 264.96.

NMED Basis for the Proposed Modification: The permit paragraph is proposed for a minor change to reference the applicable regulations for the provisions under which the compliance period may end.

6. Groundwater flow rate and direction

Current Permit Condition:

III.F.4.e. The groundwater flow rate and direction shall be determined annually, using water level data from all ten wells installed at Person Generating Station. The results of this determination shall be recorded in the facility records and reported to the Director.

Proposed Permit Modification:

III.F.4.e. The groundwater flow rate and direction shall be determined annually, using water level data from all wells installed at Person Generating Station. The results of this determination shall be recorded in

the facility records and reported to the Director.

NMED Basis for the Proposed Modification: This is a minor wording change to remove the word, "ten" from the permit paragraph. The modification proposed has the effect of requiring that PNM establish groundwater flow rate and direction in all wells installed at the facility.

7. Changes to Facility Maps

Current Permit Condition:

The map on Figure 1 of the current permit shows the locations of the groundwater monitoring wells when the permit was issued in 1988. Figure 2, page 2 of 3 and page 3 of 3 shows the structures at the facility when the permit was issued in 1988.

Proposed Permit Modification:

Modified maps are proposed for Figure 1 and page 2 of 3 and page 3 of 3 of Figure 2 of the permit to update the current groundwater monitoring wells locations and locations of structures at the facility covered by this proposed permit modification. Figure 2, page 1 of 3 is proposed to be removed from the Permit, and be replaced by a narrative description of ground water monitoring wells maintenance requirements found on page 6 of Attachment A.

NMED Basis for the Proposed Modification: These maps are proposed for updates to reflect the current situation at the facility. Figure 2, page 1 of 3 is being deleted to allow flexibility in replacement wells inspections and maintenance.

8. Changes to the Post Closure Plan, Permit Attachment A

Current Permit Condition:

The Post Closure Plan in permit Attachment A was approved through the issuance of the permit in 1988 and was based on the permit requirements for alternate concentrations limits (ACLs) in the groundwater.

Proposed Permit Modification:

The Post Closure Plan in attachment A is proposed to be replaced with an updated Post Closure Plan.

NMED Basis for the Proposed Modification: The Post Closure Plan needs to be updated to reflect the replacement wells which are discussed in this Summary of Proposed Permit Modifications as well as the other applicable requirements which are proposed for change in the permit conditions.

9. Update of Financial Assurance, Attachment B

Current Permit Condition:

Attachment B displays the Financial Assurance option chosen by PNM for Post Closure financial assurance at the time the original Permit was issued in 1988.

Proposed Permit Modification:

Attachment B is proposed to be updated with the currently effective financial assurance option as required by Permit condition II.G.2.h.

NMED Basis for the Proposed Modification:

Attachment B is proposed to be updated with the current financial option because Permit condition II.G.2.h. requires that current documentation is to be included in Permit Attachment B as a minor modification to the Permit. PNM's financial assurance option for Post Closure Care has changed since 1988.