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NEW MEXICO
ENVIRONMENT DEPARTMENT **ENTERED**



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CERTIFIED MAIL - RETURN RECEIPT REQUESTED

February 21, 2017

John Hale, P. E.
Environmental Manager
PNM Resources
2401 Aztec NE – Z100
Albuquerque, NM 87107

**RE: APPROVAL
CLASS 2 MODIFICATION REQUEST FOR MONITORING WELL
ABANDONMENT, OCTOBER 2016
PERSON GENERATING STATION,
EPA ID# NMT360010342
HWB-PNM-16-003**

Dear Mr. Hale:

The New Mexico Environment Department (NMED) has completed review of the Public Service Company of New Mexico (PNM) Resources (the Permittee) Person Generating Station Post-Closure Care Permit (PCCP) "*Class II Permit Modification Request for Monitoring Well Abandonment, October 2016*" with cover letter dated October 31, 2016. NMED received the Permit Modification request on November 1, 2016.

In the submittal the Permittee proposed the abandonment of monitoring wells PSMW-11, PSMW-17 and PSMW-20. The New Mexico Department of Transportation is planning a construction project for the southbound Rio Bravo off-ramp from Interstate 25 (I-25), which would damage PSMW-11. Additionally, PNM has provided evidence that no volatile organic compounds or other constituents of concern have been detected in any of the three monitoring wells since the April 2008 sampling event; therefore, the wells no longer needed as part of the compliance monitoring program. Following review of the Permittee's request, NMED determined that removal of the wells from the PCCP compliance monitoring program was a Class 2 Permit Modification. Further, NMED also determined that PNM has fulfilled all the

5. Sample or monitor, for the purposes of ensuring Permit compliance or as otherwise authorized by the HWA or RCRA, any substances or parameters at any location.

This Permit Section shall not be construed to limit in any manner the Department's authority under 74-4-4.3 of HWA, 3007(a) of RCRA, or any other applicable law or regulation.

1.10.10 Other Information

Whenever the Permittee becomes aware that he failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Department, the Permittee shall promptly submit such facts or information in writing to the Department (*see* 40 CFR § 270.30(l)(11)).

1.10.11 Signatory and Certification Requirements

The Permittee shall sign and certify all applications, reports, or other information submitted to the Department or required by this Permit, in accordance with 40 CFR §§ 270.11(a)(3) and 270.30(k).

1.10.12 Confidential Information

The Permittee may claim that any information required by this Permit or otherwise submitted to the Department is confidential pursuant to the provisions of §§ 74-4-4.3(D) and (F) of the HWA and 40 CFR §§ 260.2 and 270.12.

1.10.13 Submissions to the Environment Department

The Permittee shall submit to the Department by certified mail or hand delivery all reports, notifications, or other submittals that are required by this Permit to be sent or given to the Department, at the following address:

Chief, Hazardous Waste Bureau
New Mexico Environment Department
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Telephone Number: (505) 476-6000
Facsimile Number: (505) 476-6030

And also one copy to,

New Mexico Environment Department
Hazardous Waste Bureau
5900 San Antonio Drive, NE
Albuquerque, NM 87109

One hard (paper) copy and one electronic copy to the Hazardous Waste Bureau Chief and one hard copy and one electronic copy to the Department's Hazardous Waste Bureau Office in Albuquerque of these plans, reports, notifications, or other submissions shall be submitted to the Department.

TABLE 3-2
Monitor and Extraction Well Network Sampling Requirements

Well ID	Semi-annual Sampling prior to GWTS Shutdown	Semi-annual Sampling during GWTS Shutdown	Reason for Selection as Key Well
PSMW-01Ra ^a	X	X	Point of compliance well
PSMW-07R ^b	X	X	Background well
PSMW-08B ^a	X	X	Plume center well
PSMW-10 ^a	X	X	Plume center well
PSMW-11 ^c	X		Plume boundary well
PSMW-13A ^a	X	X	Plume center well
PSMW-17	X		Southern plume boundary well
PSMW-18	X		Northern plume boundary well
PSMW-20 ^c	X		Plume boundary well
PSMW-22	X		Plume center well
PSMW-27	X		Downgradient plume boundary well
PSMW-37 ^c	X		Plume boundary well
VEW (Extraction well)	X	X	Extraction well
EW-1 (Extraction well)	X	X	Extraction well
EW-2 (Extraction well)	X	X	Extraction well
EW-3 (Extraction well)	X	X	Extraction well
EW-4 (Extraction well)	X	X	Extraction well
PSMW-24C-500 ^c	X	X	Deeper Aquifer Assessment Monitor Well
PSMW-27C-500 ^c	X	X	Deeper Aquifer Assessment Monitor Well
PSMW-27C-600 ^c	X		Deeper Aquifer Assessment Monitor Well

^aWill be sampled annually for Appendix IX constituents.

^bMonitoring well PSMW-07R is a background well that will be sampled annually for Appendix IX constituents.

^cAnnual sampling.

GWTS = Groundwater treatment system.

PSMW-10, PSMW-11, PSMW-13A, PSMW-17, PSMW-18, PSMW-20, PSMW-22, PSMW-27, and PSMW-37 are retained in the monitoring network to assess shallow groundwater contamination.

The Permittee shall ensure that monitor wells PSMW-24C-500, PSMW-27C-500, and PSMW-27C-600 are retained in the monitoring network to assess deep groundwater contamination.

Should any monitor or extraction well be incapable of producing a representative sample of groundwater or perform its intended purpose for any reason, the Permittee shall submit a permit modification request to the Department for approval within 90 days of discovery for replacement of that monitor or extraction well and the abandonment of the faulty well.

3.4.2 Sampling and Analysis

The Permittee shall, as part of the groundwater monitoring program, perform groundwater sampling and analysis in accordance with this Permit Section and Permit Part 4. The data quality objective (DQO) for groundwater monitoring is to collect accurate and defensible data of high quality to assess the concentrations of hazardous constituents in the groundwater in the shallow and deep aquifers such that they can be compared to the concentration limits in Tables 3-4 and 3-5. The Permittee shall evaluate accuracy, precision, representativeness, completeness, and comparability of the groundwater data to verify that data are of high quality and ensure that data quality objectives are met. Water samples shall be collected from wells in accordance with the schedule in Table 3-3.

3.4.3 Groundwater Analytes

The Permittee shall analyze groundwater samples for the hazardous constituents specified in Tables 3-4 and 3-5. Aqueous samples shall be reported in units of micrograms per liter ($\mu\text{g/L}$).

Secondary hazardous constituents which have not been consistently detected above applicable EPA Maximum Contaminant Levels (MCLs) or the NMWQCC standards include chloroform and 1,1-dichloroethane. The Permittee shall ensure that any additional hazardous constituent that is detected, but not detected above the applicable EPA MCL or the NMWQCC standard is included on Table 3-5 via a Class 1 permit modification, if the hazardous constituent exceeds background. Any additional hazardous constituent that is detected above the applicable EPA MCL or the NMWQCC standard must be included on Table 3-4 via a Class 1 permit modification, if the hazardous constituent exceeds background. Background levels shall be established using the concentration levels present in groundwater at the background well, PSMW-7R.

The Permittee shall also collect and analyze groundwater samples annually from the wells identified on Table 3-2 for all metal, volatile organic constituents, and semivolatile organic constituents identified in 40 CFR Part 264 Appendix IX which are not pesticides, herbicides, or pharmaceuticals, to determine whether additional hazardous constituents are present (*see* 40 CFR §§ 264.100(d) and 264.99(g)). If the Permittee detects any Appendix IX constituents in the groundwater that are not already identified in Tables 3-4 and 3-5, the Permittee shall resample the well and repeat the analysis for the constituents within one month. If the second analysis confirms the presence of a new constituent, the Permittee must report the concentrations of the new constituent to the Department within seven days of receipt of the results of the second analysis. If a constituent is detected that must be added to either Table 3-4 or 3-5, the Department will direct the Permittee to initiate a permit modification request to

**TABLE A-1
Groundwater Monitor and Extraction Well Construction Details**

Well ID	Total Depth of Well (ft)	Casing Size (in)	Casing Material	Screen Length (ft)
PSMW-01R	137	2	PVC	20
PSMW-07R	133	2	PVC	29
PSMW-08B	169.40	2	Stainless Steel	15
PSMW-10	171	2	PVC	20
PSMW-11	165	2	PVC	20
PSMW-13A	164.3	2	PVC	20
PSMW-17	191	4	PVC	20
PSMW-18	185	4	PVC	20
PSMW-20	224	4	PVC	20
PSMW-22	227	4	PVC	20
PSMW-27	269	4	PVC	20
PSMW-37	111	2	PVC	20
VEW (Extraction well)	135	4	PVC	125
EW-1 (Extraction well)	158	4	PVC	22
EW-2 (Extraction well)	197	4	PVC	30
EW-3 (Extraction well)	253	4	PVC	30
EW-4 (Extraction well)	231	4	PVC	10
PSMW-24C-500	577	2	Stainless Steel	10
PSMW-27C-500	717	2	Stainless Steel	10
PSMW-27C-600	717	2	Stainless Steel	10

A.5.3 Groundwater Treatment System

The groundwater treatment system (GWTS) (Figures E-5, E-11 and E-12) was installed in 1995. Currently, the GWTS uses activated carbon to treat approximately 61 gpm of groundwater from five groundwater recovery wells. Figure E-7 presents a process flow diagram for the GWTS. Prior to modification of the GWTS in 2002, the primary treatment involved air stripping followed by activated carbon treatment.

Routine monitoring of the GWTS provides information needed to schedule preventative maintenance and to detect conditions that require repair or replacement. Maintenance procedures for the strainer, equalization tank, influent tank, pump, bag filter, GAC unit, and effluent surge tank are described fully in the O & M manual.

Sampling ports are located throughout the system to allow for collection and analysis of samples to characterize influent and effluent water, and to verify the level of treatment between the GAC

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PSMW-22	X		Plume center well
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ID = Identification.

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Should groundwater analytical results indicate that a concentration limit has been exceeded for

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Routine monitoring of the GWTS provides information needed to schedule preventative maintenance and to detect conditions that require repair or replacement. Maintenance procedures for the strainer, equalization tank, influent tank, pump, bag filter, GAC unit, and effluent surge tank are described fully in the O & M manual.

Sampling ports are located throughout the system to allow for collection and analysis of samples to characterize influent and effluent water, and to verify the level of treatment between the GAC units. The objectives of sampling and analysis are to ensure that groundwater cleanup levels are achieved and to provide operational data needed for routine system maintenance.