

Alvarado Square  
Albuquerque, NM 87158-2104  
P 505.241.2031  
F 505.241.2376  
PNMResources.com

ENTERED

PNM Resources

March 29, 2013

**CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED**

Mr. John Kieling  
Chief, Hazardous Waste Bureau  
New Mexico Environment Department  
2905 Rodeo Park Drive East, Building I  
Santa Fe, NM 87505



**RE: Person Generating Station (NMT 360010342-1) - Class 1 Permit Modification Request for Monitoring Well Replacement**

Dear Mr. Kieling:

Public Service Company of New Mexico (PNM) is submitting this Class I permit modification request for the replacement of monitoring well PSMW-8A with monitoring well PSMW-8B. In discussions with Mr. Brian Salem of your staff, PNM believes that this modification request would be considered a Class I modification without prior notification as described in Appendix I to § 270.42.C.1.b.

Monitoring well PSMW-8A is listed as a plume center well in the current permit and is required to be sampled for COCs and Appendix 9 constituents. The October 2012 monitoring results showed concentrations of total chromium, nickel, and cobalt (as part of the Appendix 9 monitoring requirements) above the relevant standards in PSMW-8A. The well was re-sampled in November 2012 for total and dissolved phase chromium, nickel, and cobalt. The re-sample analytical results are shown in Table 1 below and indicate similar totals concentrations; however, the dissolved phase concentrations were significantly lower.

**Table 1**  
**Monitoring Well PSMW-8A Analytical Results**

Sample Date	Analytical Results (mg/L)					
	Total Cr	Dissolved Cr	Total Ni	Dissolved Ni	Total Co	Dissolved Co
10/18/12	6.6	NS	3.5	NS	0.12	NS
11/21/12	6.2	0.088	3.4	1.5	0.11	0.044

NS: Not Sampled

PSMW-8A is a relatively old well and over the past few years the water level has declined significantly in it as well as other Person Generating Station monitoring wells. During sampling activities, the PSMW-8A purge water is reddish and rust-colored. The construction specifications indicate that it has a stainless steel screen. Given that stainless steel is composed, in part, of chromium and nickel, the presence of rust-colored purge water, and the significant difference between totals and dissolved concentrations suggest

that corrosion of the screen and possibly the casing is occurring, and is likely the source of the elevated totals concentrations.

PSMW-8B is located approximately 15 feet north of PSMW-8A and was originally installed to monitor COCs over a deeper zone of the shallow aquifer. Although PSMW-8B is not required to be monitored under the current permit conditions, it was monitored under the previous permit requirements but had shown no evidence of COCs for the past several years.

Although PSMW-8B was screened over a deeper zone than PSMW-8A when both wells were originally installed, due to the continuing water level decrease, it now meets the NMED monitoring well installation guidelines. The NMED monitoring well installation guidelines specify a screened interval of 5 ft above and 15 ft below the water table. The water table elevation in these two wells was approximately 150 ft during the last two sampling events in 2012. Therefore, the ideal screened interval would start at 145 ft and extend to 165 ft. The as-constructed specifications for PSMW-8A and PSMW-8B are shown in Table 2 below. The PSMW-8B screened interval below the water table elevation is close to the ideal depth of 165 ft. The additional 3.8 ft of screen may be beneficial should the water table elevation continue to decline, which seems likely given the recent conditions.

**Table 2**  
**Monitoring Well Construction Specifications**

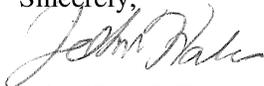
Well ID	Total Depth (ft)/ Casing Head Elevation (ft)	Screened Interval (ft)	Casing Diameter (in.)	Depth to Water (ft)
PSMW-8A	155.8/5046.29	133.2 – 153.2	2	150.08 in 10/12
PSMW-8B	169.0/5045.64	153.8 – 168.8	2	149.71 in 6/12

In order to confirm the deteriorating condition of PSMW-8A as a result of corrosion, PNM will conduct a video survey of the well casing. In addition, during the upcoming April 2013 sampling activities, PNM will sample nearby surrounding monitor wells PSMW-1R, PSMW-8B, PSMW-10, and PSMW-13A for total chromium, nickel, and cobalt in order to determine background concentrations of these three parameters. The results of the video survey and the analytical results will be provided to the NMED in a subsequent report.

PNM believes that PSMW-8B is similar to PSMW-8A relative to surface location, well construction specifications, and now, the monitored groundwater zone of interest. Therefore, PNM believes that the appropriate permit modification for this request is a Class I without prior notification.

If you have any questions, please contact me at (505) 241-2014.

Sincerely,



John Hale, P.E.  
Technical Project Manager

cc: Brian Salem, NMED-GWQB (via email)