

PNM 2004

PNM
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January 26, 2004

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. John Kieling
RCRA Permits Program Manager
New Mexico Environment Department
Hazardous Waste Bureau
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505



*A personal commitment
to New Mexico*

RE: Person Generating Station (NMT 360010342) – Post Closure Cost Estimate and Actual Post Closure Costs

Dear Mr. Kieling:

Please find enclosed the 2004 post closure care cost estimate and actual post closure costs through 2003 for the Public Service Company of New Mexico Person Generating Station.

If you have any questions, please contact me at (505) 855-6392.

Sincerely,

A handwritten signature in cursive script that reads "John Hale".

John Hale, P.E.
Technical Project Manager

Enclosures

Cc: Mr. Will Moats w/enclosures
New Mexico Environment Department
Hazardous Waste Bureau
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505

Person Generating Station
Post Closure Cost Estimate for 2004

Line Item	Description	Cost
1a	RCRA Permit - Yearly Administration, Inspections, and Reporting (thru 2018)-See Detail 1a	\$ 24,220.00
1b	Shallow GW Sampling Program - Annual Cost for Next 15 Years, (thru 2018)-See Detail 1b	\$ 49,912.00
1c	Deeper GW Sampling Program - Annual Cost for Next 15 Years, (thru 2018)-See Detail 1c	\$ 39,764.00
1d	Increased Sampling Frequency to Demonstrate Attainment of GW Goals - See Detail 1d	\$ 88,024.00
2	RCRA Permit - Non-Recurring Costs for 2004 - Additional Permit Activities-See Detail 2	\$ 43,700.00
2a	Future NMED Permit Fees, Associated PNM Labor and Contractor Costs - See Detail 2a	\$ 564,960.00
3	Shallow GW Corrective Action Program - Additional Equipment Installation Costs - See Detail 3	\$ 172,000.00
4	Shallow GW Corrective Action Program (thru 2015) - Annual Operation and Maintenance Costs - See Detail 4	\$ 59,860.00
5	Deeper Groundwater Assessment Program - Completion Costs - See Detail 5	\$ -
6	Deeper Groundwater Corrective Action Program - Installation Costs - See Detail 6	\$ -
7	Deeper Groundwater Corrective Action Program - Annual Operation Costs - See Detail 7	\$ -
8	Estimated Cost for 16th Year (2004) of Permit (line items 1a+1b+1c+2+4+5+6+7)	\$ 217,456.00
9	Estimate for Next 15 Years (PC Period): line 8 + line 1d + line 2a + line 3 + 14*(line 1a) + 14*(line 1b) + 14*(line 1c) + 11*(line 4)	\$ 3,295,444.00
	Date of Cost Estimate:	1/23/2004
	Notes:	
	1. Lines 5, 6, and 7 are set to 0 - assumes no engineered corrective action will be needed for deeper GW.	
	2. Line 4 - CAP program for shallow GW estimated to require 12 additional years of active pumping to complete (last 3 years of permit would require verification sampling only).	
	3. All labor costs are calculated at \$80 per hour.	

Detail 1
RCRA Permit - Yearly Administration, Inspections, GW Sampling, Maintenance, and Reporting
(2004 Through 2018)

Assumed Average Labor Rate For All Hourly Activities:		\$80.00								
Line Item	Description	Labor or Unit Rate	Hrs/Item or 1 Unit	Items Per Year	Annual Cost (\$)	Group Subtotal				
Permit-Required Inspections										
1	Closure Cap Inspection	\$80.00	1	2	\$ 160.00					
2	Security Fence Inspection	\$80.00	1	2	\$ 160.00					
						\$ 320.00				
Program Administration/Reporting										
3	Administrative Activities, Meetings, and Regulatory Contact	\$ 80.00	120	1	\$ 9,600.00					
4	Annual Data Report and Other Reports Preparation	\$ 80.00	160	1	\$ 12,800.00					
5	Miscellaneous Costs: Copies, Supplies, Reference Materials, Etc.	\$ 1,500.00	1	1	\$ 1,500.00					
6	RESERVED									
						\$ 23,900.00				
Subtotal for Detail 1a:						\$ 24,220.00				
Shallow GW Sampling Program (38 wells)										
7	Preparation - Equipment Checkout, Planning, and Set-Up	\$ 80.00	8	2	\$ 1,280.00					
8	Water Level Measurements (2 operators, WL readings at 43 wells)	\$ 80.00	16	2	\$ 2,560.00					
9	Purge and Sampling of 38 Wells (2 operators)	\$ 80.00	65.5	2	\$ 10,480.00					
10	Data Review/Evaluation	\$ 80.00	40	2	\$ 6,400.00					
11	Administration	\$ 80.00	24	2	\$ 3,840.00					
12	Well Replacement/Maintenance (assume 1 well replaced/yr)	\$ 10,000.00	1	1	\$ 10,000.00					
13	Sampling Supplies and Equipment	\$ 750.00	1	2	\$ 1,500.00					
14	Lab Analysis (8021halo x 44)	\$ 100.00	44	2	\$ 8,800.00					
15	Lab Analysis (App. IX x 1)	\$ 1,800.00	1	1	\$ 1,800.00					
16	Non-Labor Costs: Vehicles, Gas Cylinders, and Miscellaneous	\$ 1,626.00	1	2	\$ 3,252.00					
Subtotal for Detail 1b:						\$ 49,912.00				
							Shallow GW Well Group	Number	Sample Hrs @	Total Hours
							1R,3B,6R,7R,8A,8B,10,11,13A,14,37	11	1.0	11.0
							1B,13B	2	1.5	3.0
							25, 26, EW-1, VEW, EW-2, EW-3, EW-4, EW-5	8	0.5	4.0
							17,18,19,20,21,22,23,29	8	2.5	20.0
							27,28,30,31,32,34,35,36	8	3.0	24.0
							33	1	3.5	3.5
							Totals:	38	12.0	65.5
							Cylinders: 1.0 per well, \$17 per cyl., = 38 * 1.0 * \$17 = \$646			
							Vehicles: 48 hr * \$5/hr * 2 vehicles = \$480			
							Misc: \$500			
							Estimate per sampling event	\$ 1,626		
Deeper GW Sampling Program (15 wells)										
17	Preparation - Equipment checkout, planning, set up.	\$ 80.00	8	2	\$ 1,280.00					
18	Water Level Measurements (2 operators, WL readings at 42 wells)	\$ 80.00	16	2	\$ 2,560.00					
19	Purge and Sampling of 15 Deep CAD Wells (2 operators)	\$ 80.00	51	2	\$ 8,160.00					
20	Data Review/Evaluation	\$ 80.00	40	2	\$ 6,400.00					
21	Administration	\$ 80.00	24	2	\$ 3,840.00					
22	Well Maintenance	\$ 10,000.00	1	1	\$ 10,000.00					
23	Sampling Supplies/Equipment	\$ 500.00	1	2	\$ 1,000.00					
24	Lab Analysis (8021halo x 19)	\$ 100.00	19	2	\$ 3,800.00					
25	Non-Labor Costs: Vehicles, Gas Cylinders, and Miscellaneous	\$ 1,362.00	1	2	\$ 2,724.00					
Subtotal for Detail 1c:						\$ 39,764.00				
							Deeper GW Well Group	Number	Sample Hrs @	Total Hours
							17-8,19-8,22-8	3	6.0	18.0
							19-5, 21-5.8, 24-4.5,6,8, 25-5.8	9	3.0	27.0
							27-4,5,6	3	2.0	6.0
							Totals:	15	11.0	51.0
							Cylinders: 1.5 per well, \$17 per cyl., = 15 * 1.5 * \$17 = \$382			
							Misc: \$500			
							Vehicles: 48 hrs * \$5/hr x 2 vehicles = \$480			
							Estimate per sampling event	\$ 1,362		
Subtotal for Detail 1:						\$ 113,896.00				
26	Detail 1 Total:					\$ 113,896.00				
Increased Sampling To Demonstrate Attainment of GW Goals										
27	Additional Sampling at Shallow Groundwater Wells									
Subtotal For Detail 1d:						\$ 88,024.00				
Note: Sampling will be increased from biannual to quarterly one time during program. This will be done to demonstrate asymptotic behavior of GW analytical results as a trigger to evaluate system for Technical Infeasibility or Alternate Abatement Standard.										

Detail 2
RCRA Permit - Non-Recurring Costs For 2004

Assumed Average Labor Rate For All Hourly Activities:		\$80.00				
Line Item	Description	Labor or Unit Rate	Hrs/item or 1 Unit	Items Per Year	Annual Cost (\$)	Group Subtotal
Major Permit Activities to be Completed in 2004						
1	Miscellaneous - Non-Labor PNM Costs	\$2,500.00	1	1	\$2,500.00	
2	SWMUs - Additional Closure Activities (see details below)	\$9,200.00	1	1	\$9,200.00	
3	SVE 2004 Operation	\$2,800.00	1	1	\$2,800.00	
						\$14,500.00
Natural Pit Remediation - Completion of Activities						
6	PNM Administrative Costs	\$80.00	40	1	\$3,200.00	
7	PNM Miscellaneous Costs	\$1,000.00	1	1	\$1,000.00	
8	NMED Permit Modification Fee (NFA-Class III)	\$25,000.00	1	1	\$25,000.00	
9	Lab Analysis to Support Risk-Based Closure	\$0.00	0	0	\$0.00	
						\$29,200.00
	Detail 2 Total:					\$43,700.00
Solid Waste Management Units (SWMUs) - Additional Closure Activities						
	Lab Analysis - Miscellaneous Soil Samples	\$ 2,000.00	1	1	\$2,000.00	
	Additional Data Analysis and Reporting (Contractor)	\$ 4,000.00	1	1	\$4,000.00	
	PNM Work Activities and Data Review	\$80.00	40	1	\$3,200.00	
						\$ 9,200.00
Vapor Extraction System Operation - Currently Out of Service (2004 Only)						
	PNM Labor	\$80.00	10	1	\$800.00	
	Compliance Sampling	\$0.00	0	0	\$0.00	
	Carbon Disposal	\$2,000.00	1	1	\$2,000.00	
						\$2,800.00

Detail 2a - NMED Permit Fees

The estimate below is based on the current NMED fee structure and an assumed number of permit actions over the life of the permit.			
Activity	Number	Fee	Total For This Activity
Permit Renewal (circa 2008)	1	\$ 90,000.00	\$ 90,000.00
HSWA Module Fee	1	\$ 7,500.00	\$ 7,500.00
Class I Modifications	12	\$ 1,000.00	\$ 12,000.00
Class II Modifications	8	\$ 10,000.00	\$ 80,000.00
Class III Modifications	2	\$ 25,000.00	\$ 50,000.00
Annual NMED PC Business Fee	16	\$ 2,000.00	\$ 32,000.00
Hearing Fees	4	\$ 5,000.00	\$ 20,000.00
			\$ 291,500.00
Other Costs	Labor/Unit Rate	Hrs/item or 1 unit	Total For This Activity
PNM Labor Toward Permit Renewal	\$80.00	600	\$ 48,000.00
Contractor Labor for Renewal	\$ 150,000.00	1	\$ 150,000.00
Labor for Class I Mods (24hrsx12)	\$80.00	288	\$ 23,040.00
Labor for Class II Mods (48hrs x8)	\$80.00	384	\$ 30,720.00
Labor for Class III Mods (120hrs x 2)	\$80.00	240	\$ 19,200.00
Contractor Labor for PC Certification	\$2,500.00	1	\$ 2,500.00
			\$ 273,460.00
Detail 2a Total:			\$ 564,960.00

Detail 3

CAD - Shallow Groundwater Corrective Action Program - Additional Equipment Installation Costs

Assumed Average Labor Rate For All Hourly Activities:		\$80.00				
Line Item	Description	Labor or Unit Rate	Hrs/item or 1 Unit	Items Per Year	Annual Cost (\$)	Group Subtotal
1	Plugging and Abandonment of 2 in. Shallow Wells	\$800.00	15	1	\$12,000.00	
2	Plugging and Abandonment of 4 in. Shallow Wells	\$1,000.00	20	1	\$20,000.00	
3	Plugging and Abandonment of 4 in. Deep Wells	\$2,000.00	3	1	\$6,000.00	
4	Plugging and Abandonment of Cluster Wells	\$8,000.00	7	1	\$56,000.00	
5	Plugging and Abandonment of PSMW-25, PSMW-26, EW-1, EW-2, EW-3, EW-4, EW-5, and VEW	\$3,000.00	8	1	\$24,000.00	
6	Additional/Replacement Extraction Wells	\$15,000.00	3	1	\$45,000.00	
7	Engineering Design/Piping and Trenching to GWTP for Future Extraction Wells	\$3,000.00	3	1	\$9,000.00	
						\$172,000.00
Detail 3 Total:					\$172,000.00	

Detail 5

CAD - Deeper Groundwater Assessment Program, Completion Costs

The RCRA Post Closure Care Permit issued by the NMED in 2000 approves the deeper groundwater assessment findings.							
Consequently, it is unlikely that any additional assessment work will required for the deeper groundwater.							
CAD Deeper Groundwater Assessment Completion:					\$0.00		

Detail 7

CAD - Deeper Groundwater Corrective Action Program - Annual Operation Costs

Currently, PNM is assuming that no engineered remediation program will be needed. Contaminant levels will be monitored only. Monitoring costs are shown in Detail 1.											
CAD - Deeper Plume Corrective Action Program - Annual Operation Costs:							\$0.00				

Actual Post-Closure Costs
Public Service Company of New Mexico
Person Generating Station (NMT 360010342)

Costs Through 2003

Routine Permit Activities	
• Labor	\$ 660,092
• Other	<u>\$ 1,203,733</u>
Subtotal for Routine Activities	\$ 1,863,825
Corrective Action Directive	
Shallow Groundwater Assessment	
• Labor	\$ 105,554
• Other	<u>\$ 834,085</u>
Subtotal Shallow Groundwater Assessment	\$ 939,639
Shallow Groundwater Remediation (Installation)	
• Labor	\$ 152,686
• Other	<u>\$ 1,977,344</u>
Subtotal	\$ 2,130,030
Deep Groundwater Assessment	
• Labor	\$ 45,040
• Other	<u>\$ 2,018,080</u>
Subtotal	\$ 2,063,120
Production Well Closure	
• Labor	\$ 9,855
• Other	<u>\$ 88,908</u>
Subtotal	\$ 98,763
CAP Operation	
• Labor	\$ 92,748
• Other	<u>\$ 230,466</u>
Subtotal	\$ 323,214
Subtotal for CAD Activities:	\$ 5,554,766
Total for all Post-Closure Costs:	\$ 7,418,591