SUSANA MARTINEZ
Governor

JOHN A. SANCHEZ
Lieutenant Governor

NEW MEXICO
ENVIRONMENT DEPARTMENT

Surface Water Quality Bureau

Harold Runnels Building, N2050
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Phone (505) 827-0187 Fax (505) 827-0160
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RYAN FLYNN
Cabinet Secretary

BUTCH TONGATE
Deputy Secretary

ERIKA SCHWENDER
Director
Resource Protection Division

Certificated Mail – Return Receipt Requested

April 21, 2014

Mr. Tom Fallgren, Plant Manager
PNM San Juan Generating Station
P.O. Box 227
Waterflow, New Mexico 87421

Re: San Juan Generating Station; Major Individual Permit; SIC 4911; NPDES Compliance Evaluation Inspection; NM0028606; March 19, 2014

Dear Mr. Fallgren:

Enclosed please find a copy of the report and check list for the referenced inspection that the New Mexico Environment Department (NMED) conducted at your facility on behalf of the U.S. Environmental Protection Agency (USEPA). This inspection report will be sent to the USEPA in Dallas for their review. These inspections are used by USEPA to determine compliance with the National Pollutant Discharge Elimination System (NPDES) permitting program in accordance with requirements of the federal Clean Water Act.

Introduction, treatment scheme, and problems noted during this inspection are discussed in the "Further Explanations" section of the inspection report.

You are encouraged to review the inspection report, required to correct any problems noted during the inspection, and advised to modify your operational and/or administrative procedures, as appropriate. If you have comments on or concerns with the basis for the findings in the NMED inspection report, please contact us (see the address below) in writing within 30 days from the date of this letter. Further, you are encouraged to notify in writing both the USEPA and NMED regarding modifications and compliance schedules at the addresses below:

Racquel Douglas, MS, ET
US Environmental Protection Agency, Region VI
Enforcement Branch (6EN-WM)
1445 Ross Avenue
Dallas, Texas 75202-2733

Bruce Yurdin
New Mexico Environment Department
Surface Water Quality Bureau,
Point Source Regulation Section
P.O. Box 5469
Santa Fe, New Mexico 87502

If you have any questions about this inspection report, please contact Erin Trujillo at 505-827-0418 or at erin.trujillo@state.nm.us.

Sincerely,

/s/Bruce J. Yurdin

Bruce J. Yurdin
Program Manager
Point Source Regulation Section
Surface Water Quality Bureau

cc: Rashida Bowlin, USEPA (6EN-W) by e-mail
Gladys Gooden-Jackson, USEPA (6EN-WC) by e-mail
Carol Peters-Wagnon, USEPA (6EN-WM) by e-mail
Racquel Douglas, USEPA (6EN-WM) by e-mail
Brent Larsen, USEPA (6WQ-PP) by e-mail
Robert Italiano, NMED District II by e-mail
Michael D. (Mike) Goen, PNM Resources, Manager, Environmental Services by e-mail

Form Approved
OMB No. 2040-0003
Approval Expires 7-31-85

NPDES Compliance Inspection Report

Section A: National Data System Coding

Transaction Code	NPDES	yr/mo/day	Inspec. Type	Inspector	Fac Type
1 N 2 5 3	N M 0 0 2 8 6 0 6 11 12	1 4 0 3 1 9 17 18	C 19	S 20	2

Remarks: S T E A M E L E C T R I C G E N E R A T I O N

Inspection Work Days	Facility Evaluation Rating	BI	QA	Reserved
67 69	70 3 71	N 72	N 73	74 75 80

Section B: Facility Data

Name and Location of Facility Inspected *(For industrial users discharging to POTW, also include POTW name and NPDES permit number)*	Entry Time /Date	Permit Effective Date
Public Service Company of New Mexico (PNM), San Juan Generating Station (SJGS), CR 6800, Waterflow, NM 87421. Travel approximately 11 miles west of Farmington on US Hwy 64, turn north CR 6800, travel approximately 3 miles to entrance. San Juan County.	~0748 hours / 03/19/2014	April 1, 2011
	Exit Time/Date ~1315 hours / 03/19/2014	Permit Expiration Date March 31, 2016

Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s)
-Michael D. (Mike) Goen, PNM Resources SJGS, Manager, Environmental Services / 505-598-7533
-Danny Kimball, Technical Manager II/Environmental Analyst, PNM
-Cindy Hurtado, Environmental Scientist, PNM Resources
-Suzanne Kelsheimer, Environmental Scientist II, PNM Resources
-Ernie A. Rodarte, Director, Generation Compliance Production, PNM SJGS

Other Facility Data
Entrance on CR 6800
Latitude: 36.797098°
Longitude: -108.440556°

SIC 4911

Name, Address of Responsible Official/Title/Phone and Fax Number
Tom Fallgren, Plant Manager Power Production / PNM San Juan Generating Station, P.O. Box 227, Waterflow, New Mexico 87421 / 505-598-7600 and fax 505-598-6036

Contacted: Yes [*] No [ ]

Section C: Areas Evaluated During Inspection

(S = Satisfactory, M = Marginal, U = Unsatisfactory, N = Not Evaluated)

S	Permit	N	Flow Measurement	S	Operations & Maintenance	N	CSO/SSO
M	Records/Reports	U	Self-Monitoring Program	N	Sludge Handling/Disposal	N	Pollution Prevention
S	Facility Site Review	S	Compliance Schedules	N	Pretreatment	N	Multimedia
N	Effluent/Receiving Waters	U	Laboratory	N	Storm Water	N	Other:

Section D: Summary of Findings/Comments (Attach additional sheets if necessary)

1. See attached report and further explanations.

Name(s) and Signature(s) of Inspector(s)	Agency/Office/Telephone/Fax	Date
Erin S. Trujillo */s/Erin S. Trujillo*	**NMED/SWQB/505-827-0418**	**04/21/2014**
Signature of Management QA Reviewer	**Agency/Office/Phone and Fax Numbers**	**Date**
Sarah Holcomb */s/Sarah Holcomb*	**NMED/SWQB/505-827-2798**	**04/21/2014**

PNM - San Juan Generating Station – 03/19/2014	PERMIT NO. **NM0028606**

SECTION A - PERMIT VERIFICATION

PERMIT SATISFACTORILY ADDRESSES OBSERVATIONS ☒ S ☐ M ☐ U ☐ NA (*FURTHER EXPLANATION ATTACHED* ***Yes***)

DETAILS: **See comments in Further Explanations on reporting of "No Discharge" on DMRs**.

1. CORRECT NAME AND MAILING ADDRESS OF PERMITTEE	☒ Y ☐ N ☐ NA
2. NOTIFICATION GIVEN TO EPA/STATE OF NEW DIFFERENT OR INCREASED DISCHARGES	☐ Y ☐ N ☒ NA
3. NUMBER AND LOCATION OF DISCHARGE POINTS AS DESCRIBED IN PERMIT	☒ Y ☐ N ☐ NA
4. ALL DISCHARGES ARE PERMITTED	☒ Y ☐ N ☐ NA

SECTION B - RECORDKEEPING AND REPORTING EVALUATION

RECORDS AND REPORTS MAINTAINED AS REQUIRED BY PERMIT. ☐ S ☒ M ☐ U ☐ NA (*FURTHER EXPLANATION ATTACHED* ***Yes***)

DETAILS: **NetDMR subscriber agreement was approved 02/21/12. See Section F for pH analysis. Analytical results for target limits not reported on DMRs. Commercial laboratory reports for metal analysis attached to each DMR (NetDMR or paper).**

1. ANALYTICAL RESULTS CONSISTENT WITH DATA REPORTED ON DMRs.	☐ Y ☐ N ☒ NA
2. SAMPLING AND ANALYSES DATA ADEQUATE AND INCLUDE. **Metals**	☒ S ☐ M ☐ U ☐ NA
a) DATES, TIME(S) AND LOCATION(S) OF SAMPLING.	☒ Y ☐ N ☐ NA
b) NAME OF INDIVIDUAL PERFORMING SAMPLING	☒ Y ☐ N ☐ NA
c) ANALYTICAL METHODS AND TECHNIQUES.	☒ Y ☐ N ☐ NA
d) RESULTS OF ANALYSES AND CALIBRATIONS.	☒ Y ☐ N ☐ NA
e) DATES AND TIMES OF ANALYSES.	☒ Y ☐ N ☐ NA
f) NAME OF PERSON(S) PERFORMING ANALYSES.	☒ Y ☐ N ☐ NA
3. LABORATORY EQUIPMENT CALIBRATION AND MAINTENANCE RECORDS ADEQUATE. **See Section F for pH**	☐ S ☐ M ☐ U ☒ NA
4. PLANT RECORDS INCLUDE SCHEDULES, DATES OF EQUIPMENT MAINTENANCE AND REPAIR.	☒ S ☐ M ☐ U ☐ NA
5. EFFLUENT LOADINGS CALCULATED USING DAILY EFFLUENT FLOW AND DAILY ANALYTICAL DATA.	☐ Y ☐ N ☒ NA

SECTION C - OPERATIONS AND MAINTENANCE

TREATMENT FACILITY PROPERLY OPERATED AND MAINTAINED. ☒ S ☐ M ☐ U ☐ NA (*FURTHER EXPLANATION ATTACHED* ***No***)

DETAILS: **Schedule of Compliance Actions**

1. TREATMENT UNITS PROPERLY OPERATED.	☒ S ☐ M ☐ U ☐ NA
2. TREATMENT UNITS PROPERLY MAINTAINED.	☒ S ☐ M ☐ U ☐ NA
3. STANDBY POWER OR OTHER EQUIVALENT PROVIDED.	☒ S ☐ M ☐ U ☐ NA
4. ADEQUATE ALARM SYSTEM FOR POWER OR EQUIPMENT FAILURES AVAILABLE.	☒ S ☐ M ☐ U ☐ NA
5. ALL NEEDED TREATMENT UNITS IN SERVICE.	☒ S ☐ M ☐ U ☐ NA
6. ADEQUATE NUMBER OF QUALIFIED OPERATORS PROVIDED.	☒ S ☐ M ☐ U ☐ NA
7. SPARE PARTS AND SUPPLIES INVENTORY MAINTAINED.	☐ S ☐ M ☐ U ☒ NA
8. OPERATION AND MAINTENANCE MANUAL AVAILABLE.	☐ Y ☐ N ☒ NA
STANDARD OPERATING PROCEDURES AND SCHEDULES ESTABLISHED.	☐ Y ☐ N ☒ NA
PROCEDURES FOR EMERGENCY TREATMENT CONTROL ESTABLISHED. **Emergency Response Plan**	☒ Y ☐ N ☐ NA

PNM - San Juan Generating Station – 03/19/2014	PERMIT NO. **NM0028606**

SECTION C - OPERATIONS AND MAINTENANCE (CONT'D)

9. HAVE BYPASSES/OVERFLOWS OCCURRED AT THE PLANT OR IN THE COLLECTION SYSTEM IN THE LAST YEAR?	☐ Y ☒ N ☐ NA
IF SO, HAS THE REGULATORY AGENCY BEEN NOTIFIED?	☐ Y ☐ N ☒ NA
HAS CORRECTIVE ACTION BEEN TAKEN TO PREVENT ADDITIONAL BYPASSES/OVERFLOWS?	☐ Y ☐ N ☒ NA
10.HAVE ANY HYDRAULIC OVERLOADS OCCURRED AT THE TREATMENT PLANT?	☐ Y ☒ N ☐ NA
IF SO, DID PERMIT VIOLATIONS OCCUR AS A RESULT?	☐ Y ☐ N ☒ NA

SECTION D - SELF-MONITORING

PERMITTEE SELF-MONITORING MEETS PERMIT REQUIREMENTS. ☐ S ☐ M ☒ U ☐ NA *(FURTHER EXPLANATION ATTACHED* ***Yes****).*
DETAILS:

1. SAMPLES TAKEN AT SITE(S) SPECIFIED IN PERMIT.	☒ Y ☐ N ☐ NA
2. LOCATIONS ADEQUATE FOR REPRESENTATIVE SAMPLES.	☒ Y ☐ N ☐ NA
3. FLOW PROPORTIONED SAMPLES OBTAINED WHEN REQUIRED BY PERMIT.	☐ Y ☐ N ☒ NA
4. SAMPLING AND ANALYSES COMPLETED ON PARAMETERS SPECIFIED IN PERMIT. **pH**	☐ Y ☒ N ☐ NA
5. SAMPLING AND ANALYSES PERFORMED AT FREQUENCY SPECIFIED IN PERMIT. **pH**	☐ Y ☒ N ☐ NA
6. SAMPLE COLLECTION PROCEDURES ADEQUATE	☒ Y ☐ N ☐ NA
a) SAMPLES REFRIGERATED DURING COMPOSITING.	☐ Y ☐ N ☒ NA
b) PROPER PRESERVATION TECHNIQUES USED.	☒ Y ☐ N ☐ NA
c) CONTAINERS AND SAMPLE HOLDING TIMES CONFORM TO 40 CFR 136.3.	☒ Y ☐ N ☐ NA
7. IF MONITORING AND ANALYSES ARE PERFORMED MORE OFTEN THAN REQUIRED BY PERMIT, ARE THE RESULTS REPORTED IN PERMITTEE'S SELF-MONITORING REPORT?	☐ Y ☐ N ☒ NA

SECTION E - FLOW MEASUREMENT

PERMITTEE FLOW MEASUREMENT MEETS PERMIT REQUIREMENTS. ☐ S ☐ M ☐ U ☒ NA *(FURTHER EXPLANATION ATTACHED* ***No*** *)*
DETAILS: **PNM reports no discharge. No overflow measurement/estimate.**

1. PRIMARY FLOW MEASUREMENT DEVICE PROPERLY INSTALLED AND MAINTAINED. TYPE OF DEVICE	☐ Y ☐ N ☒ NA
2. FLOW MEASURED AT EACH OUTFALL AS REQUIRED.	☐ Y ☐ N ☒ NA
3. SECONDARY INSTRUMENTS (TOTALIZERS, RECORDERS, ETC.) PROPERLY OPERATED AND MAINTAINED.	☐ Y ☐ N ☒ NA
4. CALIBRATION FREQUENCY ADEQUATE.	☐ Y ☐ N ☒ NA
RECORDS MAINTAINED OF CALIBRATION PROCEDURES.	☐ Y ☐ N ☒ NA
CALIBRATION CHECKS DONE TO ASSURE CONTINUED COMPLIANCE.	☐ Y ☐ N ☒ NA
5. FLOW ENTERING DEVICE WELL DISTRIBUTED ACROSS THE CHANNEL AND FREE OF TURBULENCE.	☐ Y ☐ N ☒ NA
6. HEAD MEASURED AT PROPER LOCATION.	☐ Y ☐ N ☒ NA
7. FLOW MEASUREMENT EQUIPMENT ADEQUATE TO HANDLE EXPECTED RANGE OF FLOW RATES.	☐ Y ☐ N ☒ NA

SECTION F – LABORATORY

PERMITTEE LABORATORY PROCEDURES MEET PERMIT REQUIREMENTS. ☐ S ☐ M ☒ U ☐ NA *(FURTHER EXPLANATION ATTACHED* ***Yes*** *)*
DETAILS: **Approved methods not documented.**

1. EPA APPROVED ANALYTICAL PROCEDURES USED *(40 CFR 136.3 FOR LIQUIDS, 503.8(b) FOR SLUDGES).* **pH and Metals**	☐ Y ☒ N ☐ NA

PNM - San Juan Generating Station – 03/19/2014	PERMIT NO. **NM0028606**

SECTION F - LABORATORY (CONT'D)

2. IF ALTERNATIVE ANALYTICAL PROCEDURES ARE USED, PROPER APPROVAL HAS BEEN OBTAINED ☐ Y ☐ N ☒ NA

3. SATISFACTORY CALIBRATION AND MAINTENANCE OF INSTRUMENTS AND EQUIPMENT. ☒ S ☐ M ☐ U ☐ NA

4. QUALITY CONTROL PROCEDURES ADEQUATE. **Written Procedures** ☒ S ☐ M ☐ U ☐ NA

5. DUPLICATE SAMPLES ARE ANALYZED. 10 % OF THE TIME. **See Further Explanations** ☒ Y ☐ N ☐ NA

6. SPIKED SAMPLES ARE ANALYZED. 100 (Laboratory) % OF THE TIME. ☒ Y ☐ N ☐ NA

7. COMMERCIAL LABORATORY USED. ☒ Y ☐ N ☐ NA

LAB NAME **Green Analytical Laboratories**
LAB ADDRESS **75 Suttle Street, Durango, CO 81303**
PARAMETERS PERFORMED **Metals**

SECTION G - EFFLUENT/RECEIVING WATERS OBSERVATIONS. ☐ S ☐ M ☐ U ☒ NA *(FURTHER EXPLANATION ATTACHED **No**).*

OUTFALL NO.	OIL SHEEN	GREASE	TURBIDITY	VISIBLE FOAM	FLOAT SOL.	COLOR	OTHER

RECEIVING WATER OBSERVATIONS

SECTION H - SLUDGE DISPOSAL

SLUDGE DISPOSAL MEETS PERMIT REQUIREMENTS. ☐ S ☐ M ☐ U ☒ NA *(FURTHER EXPLANATION ATTACHED **No**).*
DETAILS:

1. SLUDGE MANAGEMENT ADEQUATE TO MAINTAIN EFFLUENT QUALITY. ☐ S ☐ M ☐ U ☒ NA

2. SLUDGE RECORDS MAINTAINED AS REQUIRED BY 40 CFR 503. ☐ S ☐ M ☐ U ☒ NA

3. FOR LAND APPLIED SLUDGE, TYPE OF LAND APPLIED TO: _____ (e.g., FOREST, AGRICULTURAL, PUBLIC CONTACT SITE)

SECTION I - SAMPLING INSPECTION PROCEDURES *(FURTHER EXPLANATION ATTACHED **No**).*

1. SAMPLES OBTAINED THIS INSPECTION. ☐ Y ☐ N ☒ NA

2. TYPE OF SAMPLE OBTAINED

GRAB _____ COMPOSITE SAMPLE ___ METHOD _____ FREQUENCY

3. SAMPLES PRESERVED. ☐ Y ☐ N ☒ NA

4. FLOW PROPORTIONED SAMPLES OBTAINED. ☐ Y ☐ N ☒ NA

5. SAMPLE OBTAINED FROM FACILITY'S SAMPLING DEVICE. ☐ Y ☐ N ☒ NA

6. SAMPLE REPRESENTATIVE OF VOLUME AND MATURE OF DISCHARGE. ☐ Y ☐ N ☒ NA

7. SAMPLE SPLIT WITH PERMITTEE. ☐ Y ☐ N ☒ NA

8. CHAIN-OF-CUSTODY PROCEDURES EMPLOYED. ☐ Y ☐ N ☒ NA

9. SAMPLES COLLECTED IN ACCORDANCE WITH PERMIT. ☐ Y ☐ N ☒ NA

Public Service Company of New Mexico
San Juan Generating Station
Compliance Evaluation Inspection
NPDES Permit No. NM0028606
March 19, 2014

Further Explanations

Introduction

On March 19, 2014, a Compliance Evaluation Inspection (CEI) was conducted by Erin S. Trujillo, accompanied by Sarah Holcomb, both of the State of New Mexico Environment Department (NMED), Surface Water Quality Bureau (SWQB) at the Public Service Company of New Mexico (PNM) San Juan Generating Station (SJGS) located approximately 11 miles west of Farmington, near Waterflow, New Mexico in San Juan County. PNM SJGS is classified as a major facility discharger under the federal Clean Water Act, Section 402 National Pollutant Discharge Elimination System (NPDES) permit program and is assigned permit No. NM0028606.

NM0028606 is authorized a "No Discharge" permit. If a discharge of process wastewaters at the facility occurs, the discharge may flow to unclassified "Duck Pond Arroyo", Westwater Arroyo; thence to Shumway Arroyo subject to 20.6.4.98 NMAC; thence to the San Juan River in Segment 20.6.4.401 NMAC of the San Juan River Basin. Discharges of seepage through hydrologic connection to Shumway Arroyo are temporarily authorized in accordance with the Permit. The seep area is not located on land under control of PNM, but on the adjacent San Juan Coal Mine facility.

NMED performs a certain number of CEIs for the U.S. Environmental Protection Agency (USEPA) each year. The purpose of this inspection is to provide USEPA with information to evaluate the permittee's compliance with the NPDES permit. This report is based on review of files maintained by the permittee and NMED, on-site observation by NMED personnel, and verbal information provided by the permittee's representatives.

Upon arrival at approximately 0748 hours on the day of the inspection, the inspector made introductions, presented credentials to Mr. Goen and discussed the purpose of the inspection. An entrance interview was conducted with PNM Resources and SJGS environmental staff including Mike Goen, Environmental Manager; Cindy Hurtado, Environmental Scientist; Danny Kimball, Technical Manager II; Suzanne Kelsheimer, Environmental Scientist II; and Ernie A. Rodarte, Director, Generation Compliance Production; and other operational (production) and maintenance staff. Mr. Goen provided a introductory presentation on the SJGS facility. The inspectors, Mr. Goen and Ms. Hurtado toured the facility. Following the tour, an exit interview was conducted on site with PNM Resources and SJGS environmental, production and maintenance staff, including Tom Fallgreen, Plant Manager, Power Production. The inspectors left the facility at approximately 1315 hours on the day of the inspection.

PNM submitted a Notice of Intent (NOI) on January 30, 2009 (active NPDES Tracking No. NMR05GF19) to obtain permit coverage under the 2008 Multi-Sector General Permit (MSGP) for industrial stormwater discharges. PNM had also submitted an NOI to obtain permit coverage under the previous MSGP on January 5, 2001 (expired NPDES Tracking No. NMR05A758). A MSGP NOI submitted for the facility on July 8, 2010 was terminated (NPDES Tracking No. NMR05H161). An industrial stormwater MSGP CEI was not conducted on the day of this inspection.

Treatment Scheme

PNM owns a portion and is the operator of the station of the SJGS. PNM San Juan Generating Station (SJGC) is a four unit, 1860 MW, coal-fired boiler steam electric generating plant. Two of the four units are to be decommissioned/closed. Part I.A of the Permit requires monitoring of groundwater at wells labeled QAL-1, QAL-2 (well replaced by internal plant designation QAL2R-A), QAL-3, QAL-4, CB-1, CB-2 and MW-4 for pH, Dissolved and Total Aluminum, Dissolved and Total Boron, Dissolved and Total Copper, and Total Selenium at a frequency of 1/month.

Corrective Actions and Compliance Schedule

Part II.A (Corrective Actions and Compliance Schedules) requires PNM SJGS to meet the following schedule: identify potential leakage in 6 months; start corrective actions in 9 months; completion of corrective actions in 36 months; and comply with target limits in 36 months from effective date of the permit.

PNM identified capital improvement projects (corrective actions) listed in quarterly compliance reports included: installation of decant pond prior to process pond 3; Unit 1 and 2 cooling tower circulating water line coating; Unit 3 cooling tower conversion; Unit 3 and 4 cooling tower circulating lines carbon fiber liner installation; coal pile runoff basins 1, 2, 3 and 4 synthetic liner installation; construction of coal pile runoff basin 3 and 4 pre-ponds; closure of north evaporation cell 1 pond; wastewater treatment plant pipeline replacement and repairs; and Unit 1 and 2 cooling tower drift containment.

Part II.A (USEPA R6 permit modification dated March 16, 2011) of the permit states *"…PNM shall either eliminate seepages or discharges to the WUS or comply with the target limits three (3) years from the effective date of the permit (EDP)."* The 2013 4th and 2014 1st quarter compliance reports indicated that the identification of potential leakage sources started June 1, 2007 and was on-going. A PNM project to check for leaks in the plant sewer conveyance system was initiated on June 1, 2011 and completed on August 15, 2011. Following this inspection, PNM identified corrective actions, including system-wide water balance, were completed on March 25, 2014 and April 1, 2014 (PNM letter dated April 11, 2014). Following this inspection, PNM letter dated April 11, 2014, indicated that the project to identify potential leakage sources was completed June 1, 2007 and all PNM identified projects where indicated to be completed. Monitoring results have not met target limits for Total Aluminum, Total Boron, and Total Selenium. Following this inspection, PNM letter dated April 11, 2014 states *"PNM believes that with completion of these projects, the major sources of potential water leakage from SJGS have been eliminated. However…we cannot predict the period of time that is necessary for any water that may have resulted from SJGS leakage to commingle with naturally occurring groundwater and completely move through the shallow alluvial aquifer system."*

Section A - Permit Verification - Comments

Part I.A (No Discharge Reporting) of the Permit states:

> *If there is no discharge event at this outfall during the sampling month, place an "X" in the NO DISCHARGE box located in the upper right corner of the preprinted Discharge Monitoring Report. This option can be used only after six monthly monitoring results show compliance with target limits after the completion of corrective actions to eliminate seepages.*

Part III.D.4 (Discharge Monitoring Reports and Other Reports) of the Permit states:

> *Monitoring results must be reported to EPA on either the electronic or paper Discharge Monitoring Report (DMR) approved formats.*

During the inspection, Mr. Goen indicated that USEPA Region 6 staff instructed PNM to continue to report "X" in the NO DISCHARGE box for the target action limits. PNM's subscriber agreement to submit monitoring results using NetDMR was dated February 21, 2012. PNM attached laboratory reports of groundwater monitoring to DMRs submitted in NetDMR or by paper. NMED files do not contain a permit modification to Part 1.A and/or Part III.D.4 of the Permit concerning the reporting of NO DISCHARGE.

Section B - Recordkeeping and Reporting Evaluation - Overall rating of "Marginal",

Section D - Self-Monitoring - Overall rating of "Unsatisfactory," and

Section F - Laboratory - Overall rating of "Unsatisfactory"

Part I.A (Target Limits and Monitoring Requirements) of the Permit requires monitoring and reporting of groundwater wells QAL-1, QAL-2 , QAL-3, QAL-4, CB-1, CB-2 and MW-4 of grab samples for pH at a frequency of 1/month. Part III.C 4 and 5a (Standard Conditions) of the Permit state:

> *4. Record Contents*
> *Records of monitoring information shall include:*
> *a. The date, exact place, and time of sampling or measurements;*
> *b. The individual(s) who performed the sampling or measurements;*
> *c. The date(s) and time(s) analyses were performed;*
> *d. The individual(s) who performed the analyses;*
> *e. The analytical techniques or methods used; and*
> *f. The results of such analyses.*
>
> *5. Monitoring Procedures*
> *a. Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit or approved by the Regional Administrator.*

pH: The Permittee did not conduct or report pH target limit monitoring results according to test procedures approved by 40 CFR 136. Commercial pH laboratory results of monitoring well samples exceeded the maximum holding time in 40 CFR 136.3 Table II (i.e., within 15 minutes). The Permittee records field data for pH, among other parameters (e.g., temperature and conductivity), to determine when groundwater characteristics during well purging have stabilized (SJGS's forms labeled Well Sampling Log and NPDES Field Data – pH). However, this process control screening was not documented to meet the requirements of USEPA approved analytical procedures in 40 CFR 136.3. For example, calibration (standardization using three buffers required in Standard Methods 4500-H+) was not documented on the reviewed field form or facility's written procedures. Standard Methods 4500-H+ pH method approved by the Standard Methods Committee in 2000 states "*The purpose of standardization is to adjust the response of the glass electrode to the instrument. When only occasional pH measurements are made standardize instrument before each measurement.*"

Metals: Reviewed analytical reports from the contract laboratory for samples collected February 12, 2014 (commercial laboratory report dated February 28, 2014) did not include method approval dates. Effective June 18, 2012, EPA approved analytical procedures in 40 CFR 136.3 include approval dates of the agency or committee (e.g., EPA 200.7, Rev. 4.4 (1994)). The Permittee would need to contact the contract laboratory to obtain documentation and verify compliance that analysis was conducted with approved methods.

Monitoring results for total metals on reviewed commercial laboratory report dated February 28, 2014 indicate analytical methods EPA 6010 B (Aluminum and Boron) and 6020 A (Copper and Selenium). EPA approved solid waste methods, in this case, SW-846 Method 6010 B and 6020A, are not listed as an approved method in 40 CFR 136.3 for metals (see 40 CFR 136.3, Table IB—List of Approved Inorganic Test Procedures).

QA/QC: Field duplicate samples were not documented to have been collected and submitted for analysis in reviewed record-keeping Chain of Custody forms for samples collected on February 12, 2014. According to USEPA's NPDES Inspection Manual, "*10 percent of the samples should be duplicated.*" In this case, duplicate samples at a 10% rate may be too infrequent to evaluate commercial laboratory quality control procedures. SJGS's Groundwater Sampling Plan (copy provided during inspection was not dated) states, "*At a minimum, one duplicate sample per sampling event will be obtained.*"

P.O.Box 227 – 96EO
Waterflow N.M. 87421
P 505.598-7533
F 505.598-6036
PNMResources.com

PNM Resources

April 11, 2014

RECEIVED
APR 14 2014
SURFACE WATER QUALITY BUREAU

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Compliance Assurance and Enforcement Division
Water Enforcement Branch (6EN-W)
U.S. EPA, Region 6
1445 Ross Avenue
Dallas, TX 75202-2733

RE: Permit No. NM0028606, Public Service Company of New Mexico San Juan Generating Station – 36-month Compliance Schedule Update

Dear Sir or Madam:

Public Service Company of New Mexico (PNM) is providing this summary report on progress to date in meeting the 36-month compliance schedule as described in NPDES Permit No. NM0028606 for the San Juan Generating Station (SJGS).

Part II.A of the permit indicates that all corrective actions (i.e., capital improvement projects) and compliance with target limits are to be completed within 36 months of the effective date of the permit (EDP). The EDP was April 1, 2011; therefore, the 36-month compliance date is April 1, 2014. PNM has been providing regular updates on progress relative to the compliance schedule to EPA in the quarterly compliance status reports.

All of the capital improvement projects have been completed. Project descriptions, completion dates, and other relevant information are included in Attachment 1. PNM believes that with completion of these projects, the major sources of potential water leakage from SJGS have been eliminated. However, as PNM noted in its draft permit comments of December 16, 2010 to EPA, we cannot predict the period of time that is necessary for any water that may have resulted from SJGS leakage to commingle with naturally occurring groundwater and completely move through the shallow alluvial aquifer system.

An additional concern that was noted in PNM's comments on the draft permit is that natural groundwater in the shallow alluvium is of poor quality and as supported by the available historic data, these water quality conditions predate the operation of SJGS. Consequently, it is likely that even with the elimination of major sources of water leakage, certain parameters may remain above the EPA permit-specified target levels for the duration of monitoring at SJGS. PNM notes that these target levels are based on federal and New Mexico surface water quality standards, even though they are being applied to groundwater. Given the natural background conditions, these levels simply may not be appropriate or achievable.

Attachment 2 includes figures showing monitoring well analytical results for the seven monitoring wells that are required to be monitored. As previously reported to EPA in the monthly Discharge Monitoring Reports, monitoring well QAL2 was damaged during the construction of the Coal Pile Runoff Basin 3 & 4 Pre-pond (a capital improvement project). The well was subsequently replaced with a new well designated as QAL2R.

As shown in the figure for total copper, analytical results for the seven monitoring wells for most sampling events have been below the target limit since the commencement of the NPDES permit-required monitoring requirements. However, the analytical results for the other three parameters (i.e., total

aluminum, total boron, and total selenium) indicate that they have remained above the target limits since the onset of the required monitoring. Although total aluminum, total boron, and total selenium concentrations have remained above the target limits, the figures show that most wells are exhibiting a downward trend of decreasing concentrations over time.

Attachment 3 includes water level data for the seven monitoring wells that are required to be monitored. All seven of the monitoring wells have shown a general decline in water levels over time.

The generally decreasing concentrations of the four parameters and declining water levels in the monitoring wells are indicative of the changing conditions in the shallow alluvium as the various capital improvement projects have been completed. That is, as sources of potential leakage are mitigated, less water is added to the alluvial system and commingling with naturally occurring groundwater. Over time, this commingled groundwater will move through the alluvial system allowing it to return to natural background conditions.

Increases and/or fluctuations in water levels and parameter concentrations over the duration of the capital improvement projects may be attributable to the shallow alluvial conditions. Historically, some monitoring wells have shown an increase in water levels after a heavy rainfall event. In addition, minor water leaks (which are repaired as soon as practicable) can also result in increased water levels and changing parameter concentrations.

In previous comments on the draft permit, PNM suggested that EPA consider including the groundwater recovery system (GRS) in the NPDES permit as a measure to collect and prevent any potentially impacted groundwater from SJGS impacting surface water. The GRS, in operation since 2007, is located hydrologically down gradient from SJGS. Any water leakage from SJGS that may become commingled with natural groundwater will move into the shallow alluvium and continue down gradient as groundwater to be collected by the GRS and then pumped to the SJGS synthetically-lined evaporation ponds for disposal.

The effectiveness of the GRS is demonstrated by comparing the analytical results for select parameters from monitoring well RTWE2, which is located hydrologically up gradient of the GRS and hydrologically down gradient of SJGS to the results from monitoring well RTWW2, which is located hydrologically down gradient of the GRS (see Attachment 4). To date, monitoring results indicate that parameters in RTWE2 have generally shown little to no change in concentrations over time. However, concentrations of these select parameters in RTWW2 have decreased over time. This condition suggests that if any impacted groundwater is moving down gradient through the shallow alluvial system, it is being collected by the GRS as demonstrated by the significantly better quality groundwater conditions on the down gradient side of the GRS.

PNM believes that it has met EPA's expectations by ensuring there are no discharges from SJGS to surface water and by committing substantial resources toward minimizing seepage to groundwater. Recognizing that the target levels in the NPDES permit are not enforceable limitations and may not be achievable due to natural background conditions in the groundwater, PNM respectfully requests that EPA waive the requirement to meet the target limits in the groundwater at the seven monitoring wells. Since SJGS is a zero discharge facility relative to surface water discharges, and with completion of the capital improvement projects, major sources of potential water leakage into the groundwater have been eliminated. Therefore, PNM suggests that EPA consider the GRS as a means to ensure compliance with the NPDES program and subsequent permits.

PNM can provide additional details on the GRS and monitoring results at EPA's request. If you require additional information, please contact me at (505) 598-7533.

Sincerely,

Michael D. Goen

Michael D. Goen
Environmental Manager
Environmental Services, San Juan Generating Station

Attachments

cc: Maureen Gannon, Executive Director, Environmental Services, PNM
John Hale, Technical Project Manager, Environmental Services, PNM
Isaac Chen, U.S. EPA, Region 6 (6WQ-PP), 1445 Ross Ave, Dallas, TX 75202-2733
Program Manager, NMED-SWQB, P.O. Box 5469, Santa Fe, NM 87502-5469

SAN JUAN GENERATING STATION NPDES PERMIT # NM0028606 CAPITAL PROJECT SUMMARY

Project	Start Date	Completion Date	Comments	Project Summary	Expenditure
Identify Potential Leakage Sources		6/1/2007	A four-year groundwater investigation was completed in June 2007 in which PNM identified various sources of potential leaks. On-going efforts include identifying any new leaks and making necessary repairs as soon as possible		$100,000
Install Decant Pond Prior to Process Pond 3	9/3/2012	12/31/2012	Provides for less groundwater infiltration because of shorter run of conveyance ditches. Also provides more efficent use of plant process water less loss to evaporation due to increase pumping capacity.	This project provided for installation of a concrete line channel and ramp for removal solids build-up.	$359,056
Unit 1 Cooling Tower Circulating Water Line Coating	10/1/2011	11/15/2011	Coating provides extra protection against leaks.	This project provided for installation of new interior protective coatings.	$1,119,217
Unit 2 Cooling Tower Circulating Water Line Coating	3/1/2012	3/25/2014	Coating provides extra protection against leaks.	This project provided for installation of new interior protective coatings.	$2,225,197
Unit 3 Cooling Tower Conversion	1/1/2013	6/1/2013	The project has decreased the number of external piping leaks due to inclement weather.	This project provided for installation of new water conserving matrix cooling system on C-cell and installation of blanking plates on A, B, H, and K cell.	$4,266,688
nit 3 Cooling Tower Circulating Lines Carbon Fiber Liner Installatio	9/29/2012	11/15/2012	This project will reduce the risk of major piping failure as well as providing added leak protection.	This project provided for installation of new structural reinforcement on the interior of the Unit 3 circulating water line.	$646,285
nit 4 Cooling Tower Circulating Lines Carbon Fiber Liner Installatio	3/16/2013	5/1/2013	This project will reduce the risk of major piping failure as well as providing added leak protection.	This project provides for installation of new structural reinforcement on the interior of the Unit 4 circulating water line.	$712,143
Install Synthetic Liner in Coal Pile Runoff Basin 1 and 2	10/15/2012	2/15/2012	Project reduces the risks of leaks by adding HDPE lining to the exiisting clay line pond.	This project provided for installation of new plastic lining on the Unit 1&2 coal pile run-off basin.	$331,262
Install Synthetic Liner in Coal Pile Runoff Basin 3 and 4	N/A	N/A	The project was originally scoped to install a synthetic liner on top of the clay lined Coal Pile Runoff Basin located Northeast of the station proper. To minimize groundwater infiltration and to provide for more efficient use of water at the plant, the Pre-pond project was developed.	Alternative project completed. See Coal Pile Runoff Basin 3 & 4 Pre-pond Project below.	N/A
Construct Coal Pile Runoff Basin 3 and 4 Pre-pond	12/15/2012	8/15/2013	Pond built upstream of CPRB 3 &4 is synthetically lined and the old pond will not receive water other than storm water in the event of excessive flooding. Pre-pond plan approved and permitted by NMED.	This project provided for installation of concrete and plastic lined pre-pond to allow for retaining site drainage within PNM site boundaries and a pumping system to convey drainage to existing process ponds.	$1,338,989

North Evaporation Cell 1 Pond Closure	11/15/2012	2/28/2013	Pond is closed and capped. Final closure plans to incorporate drainage slopes to be approved by NMED in early 2014.	This project provided for closing and capping the North Evaporation Pond Cell 1. Pond was dewatered and capped with a Stormwater Drainage System to prevent ponding.	$749,498
SJGS System-Wide Water Balance	6/30/2010	4/1/2014	Project provided more control and data points for operators to respond more efficently to changes in flows. Also increased water use efficiency.	Scope to study and improve water usage at the plant, improve leak detection and process problems at SJGS.	$325,000
Boroscope Wastewater Treatment Plant Pipelines	6/1/2011	8/15/2011	Project designed to check for leaks in the plant sewer conveyance system. Study triggered repair project below.	This project was designed to identify leaks in the existing plant sewer system.	$378,442
Wastewater Treatment Plant Pipeline Replacement and Repairs	10/18/2011	2/15/2012	New project undertaken after Boroscope Wastewater Treatment Plant Pipelines project identified potential leaks in the system.	This project provided for installation of new sewer lines and sewer plant on the Southside of the plant area.	$481,475
Unit 1 Cooling Tower Drift Containment	1/1/2012	2/15/2012	New project undertaken to capture wind-blown water (drift) from the cooling tower to reduce groundwater infiltration..	This project provided lining for the inside of the berms around Cooling Tower 1 and the installation of a drainage system to the process ponds	$75,000
Unit 2 Cooling Tower Drift Containment	7/1/2012	8/15/2012	New project undertaken to capture wind-blown water (drift) from the cooling tower to reduce groundwater infiltration.	This project provided lining for the inside of the berms around Cooling Tower 1 and the installation of a drainage system to the process ponds	$75,000

Permittee Response After CEI

P.O. Box 227 – 96EO
Waterflow, NM 87421
P 505.598.7533
F 505.598.6036
PNMResources.com

PNM Resources

RECEIVED
MAY 20 2014
SURFACE WATER
QUALITY BUREAU

May 15, 2014

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Bruce Yurdin
New Mexico Environment Department
Surface Water Quality Bureau
Point Source Regulation Section
P.O. Box 5469
Santa Fe, NM 87502

RE: Public Service Company of New Mexico San Juan Generating Station, NM0028606 – Response to NPDES Compliance Evaluation Inspection Report

Dear Mr. Yurdin:

Public Service Company of New Mexico (PNM) provides the following response to the Compliance Evaluation Inspection Report dated April 21, 2014, for San Juan Generating Station (SJGS).

If you have any questions, please contact me at (505) 598-7533.

Sincerely,

Michael Goen
Environmental Manager
Environmental Services, San Juan Generating Station

cc: Racquel Douglas, U.S. EPA, Region 6, (6EN-WM), 1445 Ross Ave., Dallas, TX 75202-2733
Maureen Gannon, Executive Director, Environmental Services, PNM
Erin Trujillo, NMED-SWQB (via email)

Section A – Permit Verification - Comments

Response to Comments

Although procedures associated with this permit section were identified as satisfactory in the inspection report, the NMED indicated that their files do not contain information on modifications to Part 1.A and/or Part III.D.4 of the permit relative to PNM reporting "no discharge" on the Discharge Monitoring Reports (DMR).

As was discussed with NMED during the on-site inspection, PNM again notes that EPA has instructed SJGS to report "no discharge" on the DMR.

Section D – Self-Monitoring

Response to Comments

PNM has made the necessary procedural changes and will follow the appropriate pH test methods as approved in 40 CFR 136 for future monitoring activities related to this NPDES permit.

Section F – Laboratory

Response to Comments

PNM has discussed this finding with their contract analytical laboratory. The laboratory has indicated that they will use EPA-approved analytical procedures as specified in 40 CFR 136.3 (to include the method-specific approval date) for all future analyses related to this NPDES permit.

In addition, PNM will increase the number of field duplicate samples that are collected from the seven NPDES permit-specified monitoring wells in order to satisfy the 10% sample duplicate rate recommended in the EPA's NPDES inspection manual.