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Surface Water Quality Bureau

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DAVE MARTIN
Secretary

BUTCH TONGATE
Deputy Secretary

Certified Mail - Return Receipt Requested

December 13, 2011

Patrick Themig, Vice President Generation
Public Service Company of New Mexico (PNM)
Alvarado Square MS 1030
Albuquerque, N.M., 87158-0001

RE: Minor Non-Municipal, SIC 4911, NPDES Compliance Evaluation Inspection, Public Service Company of New Mexico / Reeves Electric Generating Station, NM0000124, December 8, 2011

Dear Mr. Themig,

Enclosed, please find a copy of the report for the referenced inspection that the New Mexico Environment Department (NMED) Surface Water Quality Bureau (SWQB) 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.

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 to modify your operational and/or administrative procedures, as appropriate. Further, you are encouraged to notify in writing, both the USEPA and NMED regarding modifications and compliance schedules at the addresses below:

Diana McDonald
US Environmental Protection Agency
Allied Bank Tower
Region VI Enforcement Branch (6EN-WM)
1445 Ross Avenue
Dallas, Texas 75202-2733

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

I appreciate the cooperation of Richard Threet, Plant Manager and John Hale, P.E., Engineer, Environment and Land Services, and other Reeves Generating Station staff of PNM during the inspection. If you have any questions about this inspection report, please contact me at 505-827-0418.

Sincerely,
/s/ Erin S. Trujillo

Erin S. Trujillo
Surface Water Quality Bureau

cc: Marcia Gail Adams, USEPA (6EN-AS) by e-mail
Samuel Tate, EPA (6EN-AS) by e-mail
Carol Peters-Wagnon, USEPA (6EN-WM) by e-mail
Diana McDonald, USEPA (6EN-WM) by e-mail
Sonia Hall and Hannah Branning, USEPA (6EN-WC) by e-mail
Larry Giglio, USEPA (6WQ-PP) by e-mail
Bill Chavez, NMED District I Manager 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 0 0 1 2 4 11 12 1 1 1 2 0 8 17 18 C 19 S 20 2					
Remarks					
E L E C T R I C P O W E R G E N E R A T I O N					
Inspection Work Days	Facility Evaluation Rating	BI	QA	Reserved	
67 69	70 4	71 N	72 N	73	74 75 M I N O R 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) Public Service Company of New Mexico (PNM) / Reeves Electric Generating Station, 4400 Paseo Del Norte, NW, Albuquerque, NM. From I-25, take Paseo del Norte Exit West. At first light, turn south onto Jefferson Ave, travel approx. 1/2 block, turn west onto Paseo del Norte Frontage Road, travel approx. 0.4 miles to entrance. Bernalillo County	Entry Time /Date 1335 hours / 12/08/2011	Permit Effective Date October 1, 2009
	Exit Time/Date 1615 hours / 12/xx/2011	Permit Expiration Date September 30, 2014
Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s) Richard Threet, Plant Manager II, PNM-Reeves, 505-241-4723 and fax 505-241-2487 Ray A. Abbott, Maintenance & Operations Supervisor, PNM-Reeves, 505-241-2616 John Hale, P.E., Engineer, Environment and Land Services, PNM Resources, 505-241-2014 Malcolm Long, Planner, PNM-Reeves Dwayne Carlington, Chemist, PNM-Reeves	Other Facility Data Facility Entrance Latitude 35.174010° Longitude -106.601367° SIC 4911	
Name, Address of Responsible Official/Title/Phone and Fax Number Patrick Themig, Public Service Company of New Mexico, Alvarado Square MS 1030, Albuquerque, New Mexico 87158-0001 / Vice President / Switchboard 505-241-2700	Contacted Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

Section C: Areas Evaluated During Inspection

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

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

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

1. SEE ATTACHED CHECKLIST REPORT WITH FURTHER EXPLANATIONS.

Name(s) and Signature(s) of Inspector(s) Erin S. Trujillo /s/ Erin S. Trujillo	Agency/Office/Telephone/Fax NMED/SWQB/505-827-0418	Date 12/13/2011
Signature of Management QA Reviewer Richard E. Powell /s/ Richard E. Powell	Agency/Office/Phone and Fax Numbers NMED/SWQB/505-827-2798	Date 12/13/2011

SECTION A - PERMIT VERIFICATION

PERMIT SATISFACTORILY ADDRESSES OBSERVATIONS
DETAILS: S M U NA (FURTHER EXPLANATION ATTACHED No)

1. CORRECT NAME AND MAILING ADDRESS OF PERMITTEE **Address correct, but mail stop needs to be updated** 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 **No discharge** Y N NA
4. ALL DISCHARGES ARE PERMITTED **No discharge** Y N NA

SECTION B - RECORDKEEPING AND REPORTING EVALUATION

RECORDS AND REPORTS MAINTAINED AS REQUIRED BY PERMIT.

 S M U NA (FURTHER EXPLANATION ATTACHED No)DETAILS: **Permittee's subscriber agreement for NetDMR approved by USEPA on February 7, 2011. No reported discharge since 06/27/2003.**

1. ANALYTICAL RESULTS CONSISTENT WITH DATA REPORTED ON DMRs. Y N NA
2. SAMPLING AND ANALYSES DATA ADEQUATE AND INCLUDE. 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. 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: **No on-site de-chlorination treatment readily available should an emergency discharge be required. Floor drains inspected weekly. Absorbent socks at effluent sample/flume access.**

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. **See above comment for de-chlorination.** Y N NA
STANDARD OPERATING PROCEDURES AND SCHEDULES ESTABLISHED. Y N NA
PROCEDURES FOR EMERGENCY TREATMENT CONTROL ESTABLISHED. **SPCC. See above comment for de-chlorination.** Y N NA

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: **No reported discharge since 06/27/2003. No required monitoring**

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. Y N NA

5. SAMPLING AND ANALYSES PERFORMED AT FREQUENCY SPECIFIED IN PERMIT. Y N NA

6. SAMPLE COLLECTION PROCEDURES ADEQUATE Y N NA

a) SAMPLES REFRIGERATED DURING COMPOSITING. Y N NA

b) PROPER PRESERVATION TECHNIQUES USED. **TSS – No discharge/no monitoring.** 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: **Permit states, "Estimate flow measurements shall not be subject to the accuracy provisions..." Estimated flows would be used in flow-weighted average Temperature monitoring. Flow measurement flume is in confined space (flow distribution, head measurement) not evaluated. Permittee's instrument department records weekly inspections.**

1. PRIMARY FLOW MEASUREMENT DEVICE PROPERLY INSTALLED AND MAINTAINED. Y N NA
 TYPE OF DEVICE **Flume w/Ultrasonic transmitter and Yokogawa DX106 Recorder**

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: **Contract laboratory not inspected. No discharge/no required monitoring (analysis)**

1. EPA APPROVED ANALYTICAL PROCEDURES USED (40 CFR 136.3 FOR LIQUIDS, 503.8(b) FOR SLUDGES) Y N NA

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. **Methods, but no written QC procedures.** S M U NA
5. DUPLICATE SAMPLES ARE ANALYZED. _____% OF THE TIME. Y N NA
6. SPIKED SAMPLES ARE ANALYZED. _____% OF THE TIME. Y N NA
7. COMMERCIAL LABORATORY USED. **On-Site Lab (pH, TSS, TRC, Temperature)** Y N NA

LAB NAME **1) Hall Environmental Analysis Laboratory, Inc. (505-345-3975)**
 LAB ADDRESS **4901 Hawkins NE, Albuquerque, NM 87109**
 PARAMETERS PERFORMED **Total Copper, WET (If needed, subcontracted)**

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
001	No Discharge						

RECEIVING WATER OBSERVATIONS: **No Discharge**.

SECTION H - SLUDGE DISPOSAL

SLUDGE DISPOSAL MEETS PERMIT REQUIREMENTS. S M U NA (FURTHER EXPLANATION ATTACHED No).
 DETAILS: **No sewage sludge generated.**

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: **NA** (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

**PNM / Reeves Electric Generating Station
NPDES Permit No NM0000124
Compliance Evaluation Inspection
December 8, 2011**

Further Explanations

Introduction

On December 8, 2011, Erin Trujillo, accompanied by Daniel Valenta, both of the New Mexico Environment Department (NMED), Surface Water Quality Bureau (SWQB) conducted a Compliance Evaluation Inspection (CEI) at the Public Service Company of New Mexico Reeves Electric Generating Station (PNM – Reeves) in Albuquerque, Bernalillo County, New Mexico.

PNM-Reeves is classified as a minor industrial discharger under the federal Clean Water Act, Section 402, of the National Pollutant Discharge Elimination System (NPDES) permit program. It is assigned NPDES permit number NM0000124 which regulates discharge on an emergency basis of cooling tower blowdown, boiler blowdown, and low volume waste streams (non-contact cooling water from recirculation service systems collected by several shop drains). If piping were to be connected, then discharges from outfall 001 would be to a manmade stormwater conveyance, thence to the unclassified Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA) North Diversion Channel that flows north, thence to the Rio Grande in Segment 20.6.4.106 *State of New Mexico Standards for Interstate and Intrastate Surface Waters, New Mexico Administrative Code (NMAC)*. Segment 20.6.4.106 of the Rio Grande includes the designated uses of irrigation, marginal warmwater aquatic life, livestock watering, wildlife habitat and primary contact, and public water supply on the Rio Grande.

The NMED performs a certain number of CEIs each year for the U.S. Environmental Protection Agency (USEPA), Region VI. The purpose of this inspection is to provide the USEPA with information to evaluate the Permittee's compliance with the NPDES permit. This inspection report is based on information provided by the Permittee's representatives, observations made by the NMED inspectors, and records and reports kept by the Permittee and/or NMED. Additional information was obtained from PNM web site <http://www.pnm.com/systems/reeves.htm>.

Upon arrival at approximately 1335 hours on the day of this inspection, the inspector made introductions, explained the purpose of the inspection and presented her credentials to Mr. Richard Threet, Plant Manager II, PNM-Reeves. The inspectors, Mr. Threet and Mr. John Hail, P.E., Engineer, Environment and Land Services, PNM Resources toured the facility. At the end of the tour, an exit interview to discuss preliminary findings was conducted with Mr. Threet, Mr. Hail and Mr. Dwayne Carlington, Chemist, PNM-Reeves. The inspection ended at approximately 1615 hours on the day of this inspection.

Treatment Scheme

PNM-Reeves in north Albuquerque is a three boiler, 154-megawatt, natural gas-fired plant with three cooling tower units. The plant went online in 1958. It is used as an auxiliary plant for transmission support and peak electricity-demand periods. At capacity, this plant produces enough electricity to serve about 123,000 homes. Due to recent cold weather, two boiler units had run two days prior and one boiler unit had run the night before this inspection. The boilers were not running during this inspection.

The raw water source is from on-site deep groundwater wells. Raw water is de-mineralized before entering the boilers. Raw water is used in the cooling towers and pumps. Boiler water and cooling water treatment chemicals and corrosion inhibitor include NALCO 3D Trasar 3DT193, Sulfuric Acid 66 BE 93%, Sodium Hypochlorite, phosphate, CONQUOR CNQR3475 (Hydroquinone) and UltraAmine ULTAM120. Boiler blowdown flows to the cooling tower units or to two-lined evaporation ponds. The

ponds are permitted under NMED Groundwater Quality Bureau Discharge Permit No. 68. The lagoons contain wastewater from boiler blowdown, de-mineralizer wastes, equipment acidation wastes, caustic/acid tank cleanout wastes, and de-scaler wastes from tower maintenance activities. There is no constructed overflow outlet or connection from the evaporation ponds to Outfall 001 according to the permittee's on-site representatives.

Low volume waste streams (e.g., flow from sample panel instruments, non-contact cooling water from pump recirculation systems) is collected by shop drains. One floor drain in the "Bleach Room" remains unplugged. Other shop drains are plugged or lipped (low berm) based on information from permittee's on-site representatives and an "Operational Weekly Facility Inspection Checklist" for floor drains dated December 6, 2011.

Boiler blowdown not sent to the evaporative ponds, cooling tower blowdown and low volume waste streams are sent to the City of Albuquerque Wastewater Treatment Plant (WWTP). If the facility had an emergency situation in which they need to discharge, the facility would have to connect the line to the conveyance ditch prior to any discharge.

If future discharge under this NPDES Individual Permit becomes required, then de-chlorination treatment and procedures would be required. Permittee on-site representatives stated that current Total Copper levels of the flow would not meet permit effluent limits; therefore, additional treatment to reduce Total Copper would also be required.

Section B - Recordkeeping and Reporting Evaluation – Overall Rating of "S = Satisfactory"

Permit Requirements for Recordkeeping and Reporting

Part III.C.5.b (Standard Conditions, Monitoring Procedures) of the permit states:

The permittee shall calibrate and perform maintenance procedures on all monitoring and analytical instruments at intervals frequent enough to insure accuracy of measurements and shall maintain appropriate records of such activities.

Part III.C.4 (Standard Conditions, Record Contents) of the permit states:

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.*

Comments for Recordkeeping and Reporting

During this inspection, some of the Permittee's practices for recordkeeping of the flows to the City's WWTP, were reviewed. If future discharge under this NPDES Individual Permit becomes required, then additional sampling and analyses data would need to be recorded. For example, actual pH analytical methods used would need to be recorded. Additional laboratory equipment calibration and maintenance records would also be needed. For on-site pH analysis, the three buffer checks as required in approved Standard Methods and described in written on-site lab pH meter instructions were conducted according to the permittee's on-site laboratory representative. However, only results from two of the three buffers checks were recorded on test data (bench sheets). It was also noted that written signs in the laboratory, stating "pH is less than 6 or greater than 9"—were incorrect. The minimum pH effluent limit is 6.6 standard units (Part I.A of the permit).

Section F – Laboratory – Overall Rating of “M = Marginal”

Permit Requirements for Self-Monitoring and Laboratory

Part III.B.3.a (Standard Conditions, Proper Operation and Maintenance) of the permit states:

Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures.

Part III.C.5.c (Standard Conditions, Monitoring Procedures) of the permit states:

An adequate analytical quality control program, including the analyses of sufficient standards, spikes and duplicate samples to insure the accuracy of all required analytical results shall be maintained by the permittee or designated commercial laboratory.

Findings for Laboratory

The on-site laboratory appeared well organized with written methods and instructions, sufficient standards (reagents), and calibrated equipment and analytical instruments. It was noted that a solid residue and/or discoloration was observed inside the sample collection container used for TSS and Total Copper. Also, desiccant used for the TSS analytical procedure was substantially different in color from the unused material. There were no written site-specific quality control procedures, including practices for conducting duplicate or spike testing.

USEPA’s NPDES Inspection Manual states, “Each permittee’s laboratory must have a QA/QC program. The laboratory must document the QA program in a written QA/QC manual and the lab should make it available to all personnel responsible for sample analyses. The manual must clearly identify the individuals involved in the QA program and document their responsibilities. The laboratory’s standard operating procedures must meet user requirements in terms of specificity, completeness, precision, accuracy, representativeness, and comparability of the required testing procedures.” USEPA’s NPDES Inspection Manual also states, “10 percent of the samples should be duplicated.” Other QA/QC procedures that should be considered include: container type, container replacement or washing, and desiccant replacement.