NEW MEXICO
ENVIRONMENT DEPARTMENT

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SUSANA MARTINEZ
Governor
JOHN A. SANCHEZ
Lieutenant Governor

RYAN FLYNN
Cabinet Secretary
BUTCH TONGATE
Deputy Secretary

Certified Mail – Return Receipt Requested

October 23, 2015

Mr. Britt Chesnut, Generation Manager
Farmington Electric Utility System
City of Farmington
501 McCormick School Road
Farmington, NM 87401

Re: Farmington Electric Utility System (FEUS); Bluffview Power Plant; Minor Individual Permit; SIC 4911; NPDES Compliance Evaluation Inspection; NM0031135; September 23, 2015

Dear Mr. Chesnut:

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
US Environmental Protection Agency, Region VI
Enforcement Branch (6EN-WM)
Fountain Place
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-AS) by e-mail
Carol Peters-Wagnon, USEPA (6EN-WM) by e-mail
Racquel Douglas, USEPA (6EN-WM) by e-mail
Gladys Gooden-Jackson, USEPA (6EN-WC) e-mail
Brent Larsen and Isaac Chen, USEPA(6WQ-PP) by e-mail
Robert Italiano, NMED District II by e-mail
Aaron Dailey, FEUS 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
N	NM0003113 5	150923	C	S	2

Remarks: STEAM ELECTRIC POWER PLANT

Inspection Work Days	Facility Evaluation Rating	BI	QA	Reserved
	2	N	N	

Section B: Facility Data

Name and Location of Facility Inspected *(For industrial users discharging to POTW, also include POTW name and NPDES permit number)*
City of Farmington, Farmington Electric Utility System (FEUS),
Bluffview Power Plant, 755 West Murray Drive, Farmington, NM 87401
San Juan County.

Entry Time /Date: ~1050 hours / 09/23/2015

Exit Time/Date: ~1600 hours / 09/23/2015

Permit Effective Date: August 1, 2014

Permit Expiration Date: July 31, 2019

Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s)
-Aaron Dailey, Environmental Scientist, FEUS, 505-599-8345
-Eric Jaquez, Water Treatment Specialist, FEUS, 505-566-2450
-Bryan Johnson, Operator, FEUS
-Richard Miller, Operations & Maintenance, Superintendent, Generation Division, FEUS
-Britt Chesnut, Generation Manager, FEUS, 505-599-8342

Name, Address of Responsible Official/Title/Phone and Fax Number
Mr. Britt Chesnut, Generation Manager, FEUS, City of Farmington
501 McCormick School Road, Farmington, NM 87401

Contacted: Yes * No

Other Facility Data
Entrance (Locked Gate)
Latitude: 36.717269°
Longitude: -108.215964°

Outfall 001
Latitude: 36.717214°
Longitude: -108.222229°

SIC 4911

Section C: Areas Evaluated During Inspection

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

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

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

1. The inspector, Erin Trujillo, accompanied by Daniel Valenta both of NMED SWQB, arrived at the facility at approximately 1050 hours on September 29, 2015. Upon arrival, the inspector conducted an entrance interview with Mr. Aaron Dailey, where she made introductions, presented credentials and explained the purpose of the inspection. Following a tour of the facility, the inspector conducted an exit interview on site to discuss preliminary findings of the CEI with Mr. Dailey, Mr. Miller and Mr. Chesnut from approximately 1515 to 1545 hours. Following the exit interview, Mr. Dailey and the inspectors went to the outfall at San Juan River.
2. See attached checklist 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**	**10/23/2015**
Signature of Management QA Reviewer	**Agency/Office/Phone and Fax Numbers**	**Date**
Bruce Yurdin */s/Bruce Yurdin*	**NMED/SWQB/505-827-2798**	**10/23/2015**

FEUS Bluffview Power Plant - September 23, 2015	PERMIT NO. **NM0031135**

SECTION A - PERMIT VERIFICATION

PERMIT SATISFACTORILY ADDRESSES OBSERVATIONS ☐ S ☒ M ☐ U ☐ NA (*FURTHER EXPLANATION ATTACHED* ***Yes***)
DETAILS: **New outfall 001 constructed / installed November 2014**.

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. **Latitude / Longitude** ☐ 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 approved.**

1. ANALYTICAL RESULTS CONSISTENT WITH DATA REPORTED ON DMRs. **pH and TRC** ☐ 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* ***Yes***)
DETAILS: **Power station was shut down for scheduled maintenance on the day of this CEI.**

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. **Not all written** ☐ Y ☒ N ☐ NA
PROCEDURES FOR EMERGENCY TREATMENT CONTROL ESTABLISHED. **Written, but not all distributed** ☐ Y ☒ N ☐ NA

FEUS Bluffview Power Plant - September 23, 2015	PERMIT NO. NM0031135

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. ☒ Y ☐ N ☐ NA

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

6. SAMPLE COLLECTION PROCEDURES ADEQUATE. **See further explanation for documenting cooling preservation** ☐ Y ☒ N ☐ NA
But, no record keeping of temperature
a) SAMPLES REFRIGERATED DURING COMPOSITING. **But, no traceable NIST thermometer** ☒ Y ☐ N ☐ NA

b) PROPER PRESERVATION TECHNIQUES USED. **N = Not Documented (Temperature not recorded during storage)** ☐ 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: **Rosemount Analytical, Inc. certificate of calibration dated 11/27/2014. Meter rate 0 to 275 gal/minutes (0.396 MGD). Emerson Process Management recommends in-situ verification of meter once every 3 years (i.e., due Nov 2017).**

1. PRIMARY FLOW MEASUREMENT DEVICE PROPERLY INSTALLED AND MAINTAINED. ☒ Y ☐ N ☐ NA
TYPE OF DEVICE **Emerson Magnetic 8732 Flow Meter, Sensor Serial Number 0272649**

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. **Initial calibration** ☒ Y ☐ N ☐ NA
RECORDS MAINTAINED OF CALIBRATION PROCEDURES. ☒ Y ☐ N ☐ NA
CALIBRATION CHECKS DONE TO ASSURE CONTINUED COMPLIANCE. **Not due by manufacturer (see above)** ☐ 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 laboratories not inspected. TRC sample handling procedures need review.**

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

FEUS Bluffview Power Plant - September 23, 2015	PERMIT NO. **NM0031135**

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. **See further explanations** ☒ S ☐ M ☐ U ☐ NA

5. DUPLICATE SAMPLES ARE ANALYZED. **pH 100** % **/ Submitted to Contract Lab 0** % OF THE TIME. ☒ Y ☐ N ☐ NA

6. SPIKED SAMPLES ARE ANALYZED. **Field pH and TRC 100** % OF THE TIME. ☒ Y ☐ N ☐ NA

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

LAB NAME **1) OMI CH2M Hill; 2) Hall Environmental; and 3) Sea Crest Group**
LAB ADDRESS **1) 615 S. Carlton, Farmington, NM 87401; 2) 4901 Hawkins NE, Albuquerque, NM 87109; 3) 500 S Arthur Ave #450, Louisville, CO 80027**
PARAMETERS PERFORMED **1) Solids; 2) O&G, Al; 3) WET**

SECTION G - EFFLUENT/RECEIVING WATERS OBSERVATIONS. ☐ S ☒ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED **Yes**).*

OUTFALL NO.	OIL SHEEN	GREASE	TURBIDITY	VISIBLE FOAM	FLOAT SOL.	COLOR	OTHER
001	**No discharge**	**No discharge**	**No discharge**	**No discharge**	**No discharge**	**No discharge**	**None**

RECEIVING WATER OBSERVATIONS **San Juan River, below the Animas River and at Outfall 001, was turbid.**

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

City of Farmington
Farmington Electric Utility System - Bluffview Power Plant
Compliance Evaluation Inspection
NPDES Permit No. NM0031135
September 23, 2015

Further Explanations

Introduction

On September 23, 2015, a Compliance Evaluation Inspection (CEI) was conducted by Erin S. Trujillo, accompanied by Daniel Valenta, both of the State of New Mexico Environment Department (NMED), Surface Water Quality Bureau (SWQB) at the City of Farmington, Farmington Electric Utility System (FEUS), Bluffview Power Plant located at 755 West Murray Drive, Farmington, New Mexico 87401 in San Juan County.

FEUS Bluffview Power Plant is classified as a minor facility discharger under the federal Clean Water Act, Section 402 National Pollutant Discharge Elimination System (NPDES) permit program and is assigned permit No. NM0031135. The permit authorizes discharges of cooling tower blowdown, reverse osmosis (RO) waste, evaporator coolant (summer only), and various floor drains to San Juan River in Segment 20.6.4.401 NMAC of the San Juan River Basin. Designated uses of Segment 20.6.4.401 NMAC include public water supply, industrial water supply, irrigation, livestock watering, wildlife habitat, primary contact, marginal coldwater aquatic life and warmwater aquatic life. The San Juan River assessment unit does not support primary contact (listed cause is E.coli bacteria) and marginal coldwater aquatic life (listed causes are turbidity and sedimentation siltation) according to the 2014-2016 State of New Mexico CWA §303(d)/§305(b) Integrated List & Report. A total maximum daily load (TMDL) has not been written for turbidity and sedimentation siltation at this time.

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. Condition of sediment and erosion control measures and need for maintenance at the facility was discussed during the CEI, but an industrial stormwater Multi-Sector General Permit (MSGP) CEI was not conducted on the day of this inspection.

Upon arrival at approximately 1050 hours on the day of the inspection, the inspector made introductions, presented credentials to Mr. Aaron Daily, Environmental Scientist, FEUS and discussed the purpose of the inspection. The inspectors, Mr. Daily, Mr. Eric Jaquez, Water Treatment Specialist, and Mr. Bryan Johnson, FEUS toured the facility. The inspector conducted an exit interview on site to discuss preliminary findings with Mr. Daily, Mr. Richard Miller, Operations & Maintenance, Superintendent, Generation Division, FEUS and Mr. Britt Chesnut, Generation Manager from approximately 1515 to 1545 hours. Upon exiting the power plant facility, the inspectors and Mr. Daily traveled to the location of the facility's outfall at San Juan River, approximately 0.35 miles west of the power plant entrance. The inspectors left the facility at approximately 1600 hours on the day of the inspection.

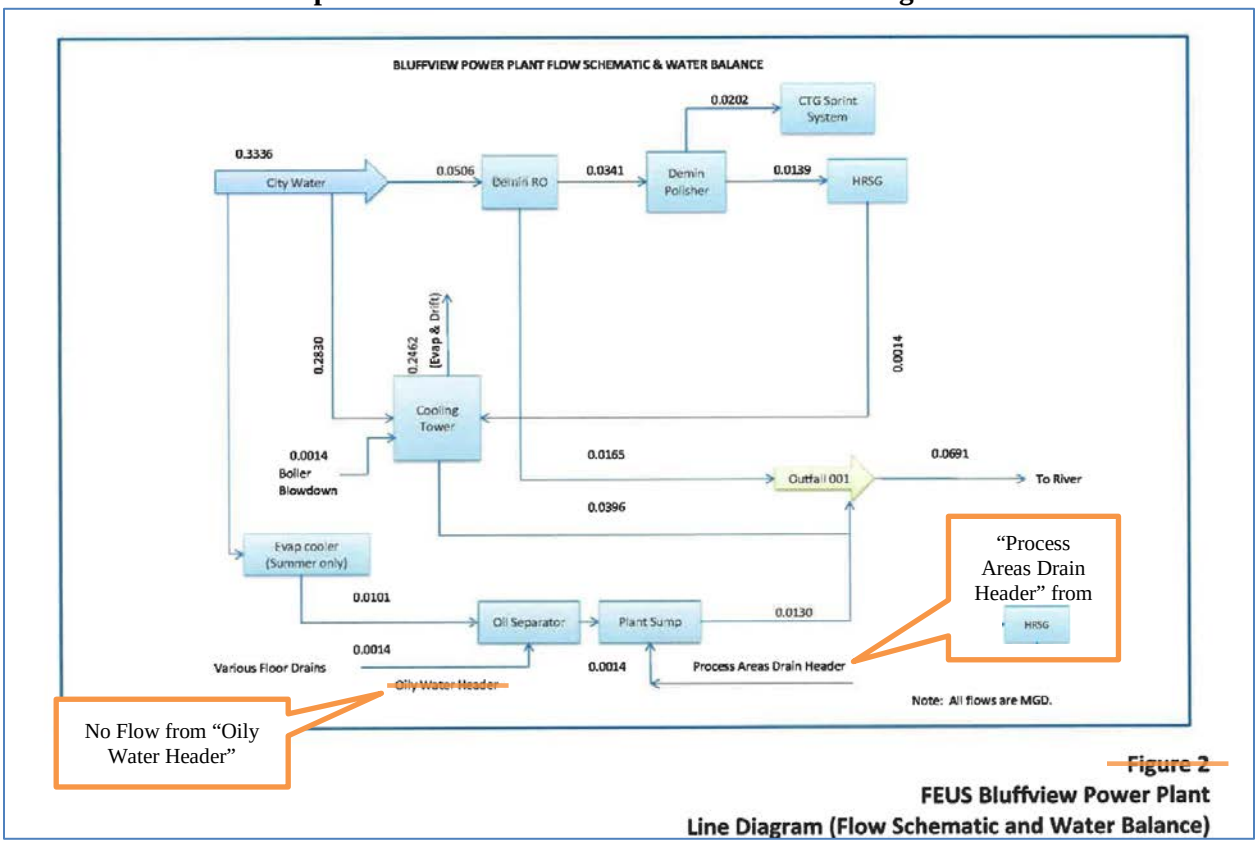
Treatment Scheme

Farmington Electric's Bluffview Power Plant approximately 60 megawatt combined–cycle natural gas steam electric generating facility was completed and commenced operation in May of 2005. The plant includes a natural gas fueled gas turbine with heat recover steam generator (HRSG), duct burner and steam turbine. The facility also includes cooling towers, water pump station, sub-station, and supporting equipment to produce and deliver electricity. Process or wastewater flows from the facility were previously directed to the City of Farmington Waste Water Treatment Plant. The final construction inspection for the pipe and Outfall 001 occurred on November 25, 2014.

A scan of the flow schematic line diagram from the Permittee's NPDES 2013 application has been annotated below based on updated information provided by the Permittee Representatives. Flows labeled "process areas drain header" are from an emergency pressure safety value at the HRSG. Wastewaters from the steam generator turbine

"oily water header" now drain to an underground containment tank. Steam generator turbine wash and metal cleaning waste waters (approximately 2,000 to 4,000-gallons of wash water per year)--that also drain to the underground containment tank--are profiled and disposed of through an USEPA and DOT approved service provider according to Permittee Representatives.

Updates to Permittee's Flow Schematic Line Diagram



~~Figure 2~~
FEUS Bluffview Power Plant
Line Diagram (Flow Schematic and Water Balance)

Corrosion inhibitors and biocides chemicals are fed into the water flow system and cooling tower basin. After the cooling tower, bisulfite for de-chlorination is pumped into the flow line prior to discharge. The following information on the chemical feeds was obtained safety data sheets (SDS) provided by Permittee Representatives:

Chemical Name	**Purpose**	**SDS Listed Chemicals, CAS#**
Betzdearborn	De-Chlorination Agent	Sodium Bisulphite, #7631-90-5
Caustic Soda	Alkalinity Control	Sodium Hydroxide, #1310-73-2
Cortrol	Water-Based Dissolved Oxygen Scavenger	Carbohydrazide, #497-18-7
Gengard	Corrosion Inhibitor	Carboxylic Acid Polymer; Maleic Acid, #110-16-7
Hypersperse	Membrane Deposit Control Agent	Disodium Phosphonate, #13708-85-5
Optisperse	Water-Based Internal Boiler Treatment	Polyphosphoric Acids, Sodium Salts, #68915-31-1; Sodium Hydroxide, #1310-73-2
Sodium Hypochlorite	Commodity Bleach	Sodium Hypochlorite, #7681-52-9
Steamate Pwr1440	Neutralizing Amine	Ethanolamine, #141-43-5

Section A - Permit Verification - Overall rating of "Marginal"

Permit Requirements

Standard Conditions, Part III.D.9 (Reporting Requirements, Other Information) of the Permit states *"Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, it shall promptly submit such facts or information."*

Findings for Outfall 001 Coordinates

- The Title Page of the Permit provides the following coordinates for Outfall 001 based on information provided in the Permittee's application: Latitude 36° 42' 56" North, Longitude 108° 13' 20 " West. Outfall 001 was constructed after the permit became effective in a location approximately 500 feet north of the coordinates in the application and final permit (directly north of the City of Farmington WWTP Outfall). Based on Google Earth imagery, the actual latitude and longitude coordinates of Outfall 001 are:

	Latitude	Longitude
Decimal Degrees	36.717214°	-108.222229°
Degree, Minutes, Seconds	36° 43' 1.97" N	108° 13' 20.02" W

Comments on USEPA's Final SSM Rule

- USEPA R6 has not determined that modifications to the permit are required due to USEPA's Final Sufficiently Sensitive Method (SSM) Rule effective September 18, 2014 at this time. More information on the rule is available at http://water.epa.gov/polwaste/npdes/basics/.

  USEPA R6 Permit Section and/or Permit Writer may want to consider if the Minimum Quantification Levels (MQLs) in the permit are sufficient reporting values for compliance with effluent limitations. For example, the total residual chlorine (TRC) MQL in the Permit is above the Method Detection Limit (MDL) calculated by the Permittee, and may be above the minimum level (ML) of quantification of a sufficiently sensitive analytical method.

  Additional Information/Example Calculations: All analytical methods and systems have a certain level of "noise" due to random variations in the analytical and detection components of the system. When testing for contaminants at low concentrations, there is a point where the method's results cannot be distinguished from the "noise" level of the analytical system. MDL, as defined in 40 CFR 136 Appendix B, is "*…the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix containing the analyte.*" ML is the minimum concentration at which the numerical result is quantifiable.

  Part I.A.1 of the Permit requires a daily maximum effluent limitation for TRC of 19 µg/L. The MQL discussed in Part II.A and listed in Appendix A of the Permit for TRC is 33 µg/L. Part II.A states "*If any individual analytical test result is less than the MQL listed, a value of zero (0) may be used for that pollutant result for the Discharge Monitoring Report (DMR) calculations and reporting requirements.*" Part II of the permit does not include language on estimating ML based on a calculated MDL. As an example of how one may calculate ML based on MDL study data, Federal Register / Vol. 68, No. 48 / Wednesday, March 12, 2003 / Proposed Rules / Page 11790 describes that ML may be calculated to be approximately 3.18 x MDL (assuming the number of degrees of freedom is 6 and Student's t-value is 3.143).

  Permittee representatives indicated that the facility's TRC "*Determination of the Method Detection Limit*" per Part 136 Appendix B, and thus, the facility's Chlorine Amperometric Titrator detection limit is 3 µg/L (0.003 mg/L). The instrument below detection limit (BDL) value is < 3 µg/L. Using the 2003 proposed Federal Register equation and the facility's instrument specific determined MDL, the ML may be approximately 3.18 x 3 µg/L = 9.54 µg/L, rounded to 10.0 µg/L or 0.010 mg/L, which is lower than both the TRC effluent limitation and MQL in the Permit.

- Permitees/Applicants must use "sufficiently sensitive" approved analytical test methods when completing an NPDES permit application per the USEPA's Final SSM rule. Permittees should contact the USEPA R6 Permit Writer to confirm that the reportable MQLs in Appendix A of PART II of the Permit are sufficient prior to analysis and submitting (reporting) "not detected" or "0" concentration data for a permit renewal application.

Additional information (e.g., detection or estimate limits, minimum or reportable quantification levels, etc.) may be required.

Comments on Aluminum Monitoring

- The Permittee would need to contact the USEPA R6 Permit Writer to confirm if the analytical results of samples that had higher turbidity and filtered according to NMED SWQB standard operating Procedures (SOPs) would be reportable for compliance purposes under this Permit and/or to request changes to the Permit. If approved by USEPA, filtering would only be used (applicable) if the effluent was turbid as described below.

  Additional Notes: Part I.A.1 (Outfall 001 Effluent Limits) of the Permit requires monitoring for Total Aluminum with 30-DAY AVG and daily max limitations of 1.701 mg/L. Pollutants listed in Part II.B (24-Hour Oral Reporting/Daily Maximum Limitation Violations) of the Permit include Total Recoverable Aluminum. Approved methods at 40 CFR 136.3 Table IB Footnote 4 states *"For the determination of total metals (which are equivalent to total recoverable metals) the sample is not filtered before processing."* Permittee representatives indicated that samples collected for aluminum monitoring are not filtered which is consistent with the Permit.

  USEPA R6 Draft Permit Fact Sheet prepared April 8, 2014 indicates that the aluminum monitoring and limitation is a water quality based effluent limitation. In the State of New Mexico, the acute and chronic aquatic life criteria for aluminum are based on analysis of total recoverable aluminum in a sample that is filtered to minimize mineral phases as specified by the department [20.6.4.900.J(1)(e) NMAC effective June 5, 2013]. NMED SWQB Standard Operating Procedures (SOPs) allow for filtering of Total Recoverable Aluminum samples with a turbidity of greater than 30 nephelometric turbidity units (NTUs).

  Section 6.1.4 Total Recoverable Aluminum of NMED SWQB SOP for wastewater sampling at https://www.env.nm.gov/swqb/SOP/8.3SOP-WastewaterSampling08Aug2014.pdf states *"If turbidity is 30 NTUs or less, follow the instructions for total metals samples…. If turbidity is greater than 30 NTUs, follow the instructions for dissolved metals samples…, but use a 10-µm filter in place of the 0.45-µm filter. If there are equipment problems prohibiting the measurement of turbidity in the field and the wastewater sample has any cloudiness as determined by visual inspection, then the total recoverable Al sample should be filtered using a 10-µm filter…."*

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

Permit Requirements

Part I.A.1 of the Permit requires monitoring for pH and TRC, and both 30-DAY AVG and Daily Max total dissolved solids (TDS), total suspended solids (TSS), and oil & grease effluent loading limitations, as follows:

EFFLUENT CHARACTERISTICS		DISCHARGE LIMITATIONS Standard Units		MONITORING REQUIREMENTS	
POLLUTANT	STORET CODE	MINIMUM	MAXIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
pH	00400	6.6	9.0	Daily	Grab

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS lbs/day, unless noted		DISCHARGE LIMITATIONS mg/l, unless noted (*2)		MONITORING REQUIREMENTS	
POLLUTANT	30-DAY AVG	DAILY MAX	30-DAY AVG	DAILY MAX	MEASUREMENT FREQUENCY	SAMPLE TYPE
Flow	Report MGD	Report MGD	***	***	Continuous	Record
Total Dissolved Solids (TDS)	Report	<2,000	Report	3,475	Once/Month	12-Hr Composite
Total Suspended Solids (TSS)	17.26	57.55	30	100	Once/Month	Grab
Oil & Grease (O&G)	8.63	11.51	15	20	Once/Month	Grab
Total Residual Chlorine (TRC)	N/A	N/A	N/A	19 ug/l	Daily	Grab (*1)
Total Aluminum	N/A	N/A	1.701	1.701	Once/Quarter	Grab

Findings

- Analytical results for pH, and analytical results and monitoring frequency for TRC were not consistent with data reported on discharge monitoring reports (DMRs).

  On the April 2015 DMR, the minimum pH was reported to be 6.33 s.u. However, April 2015 DMR Comments state *"pH readings were below permit limit on April 3 and April 4, 2015 (6.55, 5.33 respectively)."* The minimum pH to be reported on the DMR would be 5.33, not 6.33 s.u.

  Examples of TRC monitoring results reported on March, April and May 2015 DMRs that were not consistent with reviewed recordkeeping are provided below:

  - TRC daily max of < 3 µg/L and a daily monitoring frequency was reported on the May 2015 DMR. May 2015 DMR Comments states *"…For Chlorine, the minimum detectable limit, 3 ug/L, was used as the laboratory results were below detectable limits for the month."*

    Reviewed record keeping indicated that the Daily Max TRC concentration in May of 2015 was 21 µg/L. The monitoring frequency was more than daily in May of 2015. Analytical results of a sample collected on 05/05/15 at 0249 hours was 0.021 mg/L and on 05/05/15 at 0414 was BDL.

  - TRC daily max of 8 µg/L and daily monitoring frequency was reported on the April 2015 DMR. April 2015 DMR Comments states "*…Chlorine detection of 8 ppb was observed on 29 April, below permit limit, but was anomalous with all other "below detection limit" readings for the month."*

    Reviewed record keeping indicated that the Daily Max TRC concentration was 0.021 mg/L (21 µg/L) in April 2015. The monitoring frequency was more than daily in April of 2015. Analytical results of a sample collected on 04/29/15 at 1135 hours was 0.021 mg/L and at 1158 hours was 0.008 mg/L.

  - Comments on the March 2015 DMR state *"For Chlorine, all daily samples taken were Below Detectable Limits (BDL), but this form has inputs for numbers only. Therefore < 4 µg/L was used as the number because this was the Minimum Detectable Limit for this constituent."*

    On the day of this CEI, the BDL was described by Permittee Representatives to be 3 µg/L. Permittee should confirm that 4 µg/L was correct in March of 2015 and/or revise the comment on the associated DMR as applicable.

  The Permittee's decision to use MQL permit language to report zero (0) for compliance purposes would apply to DMRs, as well as, Part II.B 24-hour oral and written report requirements in the Permit. USEPA NetDMR staff can be contacted to confirm the proper way to document actual monitoring more frequent than required by the permit (e.g., 31/30 or 32/31 depending upon the number of days of the month).

- Loading Calculations: Permittee representative described that effluent loadings were not calculated using daily effluent flow corresponding to the daily analytical data. USEPA Region 6, NPDES Reporting Requirements Handbook, Reporting of Loadings, Revised August 25, 2004 states:

  Some parameters in the permit are limited in terms of pounds per day (lbs/day). Although all of these parameters are measured initially in milligrams per liter (mg/L), conversion to lbs/day can be achieved by using the following formula. Always be sure to use the flow measurement determined on the day when sampling was done.

  Flow on day of sampling (MGD) x concentration (mg/L) x 8.34 (lbs/gal) = Loading (lbs/day)

NetDMR staff can be contacted if more information is needed on how to submit revised DMRs electronically.

Comments on USEPA's Final Electronic Reporting Rule

USEPA R6 has not determined that modifications to the permit are required due to USEPA's Final Electronic Reporting Rule signed on September 24, 2015 at this time. This rule will replace most paper-based Clean Water Act (CWA) NPDES permitting and compliance monitoring reporting requirements with electronic reporting. More information on the rule is available at http://www2.epa.gov/compliance/final-national-pollutant-discharge-elimination-system-npdes-electronic-reporting-rule.

Permittee has an approved NetDMR subscriber agreement to submit DMRs electronically. It is not known when USEPA R6 may require that other non-compliance reporting will be required to be submitted electronically.

Section C - Operations and Maintenance - Overall rating of "Marginal"

Permit Requirements

Part III.B.3.a (Standard Conditions, Proper Operation and Maintenance) of the Permit states *"The permittee shall at all times properly operate and maintain all facilities and system of treatment and control (and related appurtenances) which are installed or used by permittee as efficiently as possible and in a manner which will minimize upsets and discharge of excessive pollutants and will achieve compliance with the conditions of this permit."*

Findings

- Not all water treatment operating procedures described by the Permittee's Representative main water treatment operator, including procedures for emergency treatment control, had been formalized and distributed to other staff. As an example, Permittee Representatives described that de-chlorination tank filling practices were changed to prevent exceedances of TRC limitations, but procedures were not available in written form on the day of this CEI. The need for written procedures is important if the facility's main water treatment operator is on leave or not otherwise available. Operator training on new written procedures may also be necessary.

Section D - Self-Monitoring - Overall rating of "Marginal"

Permit Requirements

Part III.C.5.a (Standard Conditions, Monitoring Procedures) of the Permit states *"Monitoring must be conducted according to test procedures approved under 40 CFR 136…."*

Findings

- Proper cooling preservation techniques were not documented. Table II (Required Containers, Preservation Techiques, and Holding Times) of 40 CFR 136.3 requires that samples collected for solids, oil & grease and Whole Effluent Toxicity testing are Cool, ≤6°C. Samples were described by Permittee Representatives to be refrigerated during composite sample collection. However, there was no record keeping of temperature of the refrigerator during sample collection. There was no traceable National Institute of Standards and Technology (NIST) thermometer or other method used to verify temperature of the samples kept in the on-site refrigerator.

  Additional Notes: USEPA National Pollutant Discharge Elimination System Compliance Inspection Manual, Table 5-4 quality control procedures for field analyses and equipment states, *"All standardization should be against a traceable NIST or NIST calibrated thermometer…Temperature readings should agree within ±1°C or the thermometer should be replaced or recalibrated."*

- As discussed above, monitoring and analyses for TRC were performed more often than required by permit, but not reported on the April and May 2015 DMRs.

Section F - Laboratory - Overall rating of "Marginal"

Permit Requirements

Part III.B.3.a (Standard Conditions, Proper Operation and Maintenance) also 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 accurancy of all required analytical results shall be maintained by the permittee or designated commercial laboratory."*

Findings

- Commercial laboratory report dated 12/12/2014, for a sample collected on 11/24/2014 for Aluminum monitoring, did not document use of an approved 40 CFR 136.3 method. The method used was recorded to be EPA 6010B. Approved methods are listed below:

TABLE IB—LIST OF APPROVED INORGANIC TEST PROCEDURES—Continued

Parameter	Methodology[58]	EPA[52]	Standard methods	ASTM	USGS/AOAC/Other
3. Aluminum—Total,[4] mg/L	Digestion,[4] followed by any of the following:				
	AA direct aspiration[36]	.....	3111 D–1999 or 3111 E–1999.	.....	I–3051–85.[2]
	AA furnace	.....	3113 B–2004.		
	STGFAA	200.9, Rev. 2.2 (1994).			
	ICP/AES[36]	200.5, Rev 4.2 (2003)[68]; 200.7, Rev. 4.4 (1994).	3120 B–1999	D1976–07	I–4471–97.[50]
	ICP/MS	200.8, Rev. 5.4 (1994)	3125 B–2009	D5673–05	993.14,[3] I–4471–97.[50]
	Direct Current Plasma (DCP)[36].	.....	.....	D4190–08	See footnote.[34]
	Colorimetric (Eriochrome cyanine R).	.....	3500–Al B–2001.		

- Described TRC sample handling procedures—agitation of the sample by hand prior to analysis—are practices that are not described or in accordance with the approved 40 CFR 136.3 method. Standard Method 4500-CL Chlorine (Residual) Section A.4 states *"Exposure to sunlight or other strong light or agitation will accelerate the reduction of chlorine. Therefore, start chlorine determinations immediately after sampling, avoiding excessive light and agitation."* SM 4500-CL D (Amperometric Titration Method) lists agitator apparatus, but the procedure does not describe agitation when the sample is collected.

- Described laboratory analysis QA/QC procedures did not include a schedule for submitting duplicate field samples to commercial laboratories. USEPA's NPDES Inspection Manual states "10 percent of the samples should be duplicated."

Section G - Effluent/Receiving Waters Observations - Overall rating of "Marginal"

Permit Requirements

As discussed above, effluent limitations in Part I.A of the Permit for pH include a minimum of 6.6 s.u.; Total Suspended Solids include 30 Day Average (30 DA AVG) and Daily Max concentrations of 30 and 100 mg/L, respectively; and oil & grease include 30 DA AVG limitation of 15 mg/L.

Findings

- On 09/05/15, the TRC value of 35 µg/L exceeded the MQL (discussed above) in the Permit. TRC record keeping for 09/05/15 at 1055 hours was 0.35 mg/L, 1119 hours was 0.027 mg/L, and 1404 hours was 0.010 mg/L.

- pH reported on the April 2015 DMR was below the minimum effluent limit. As discussed above, the minimum pH to be reported on the April 2015 DMR was 5.33 not 6.33 s.u., and both were below the effluent limit of 6.6 s.u.

- TSS, and oil & grease reported on the November 2014 DMR exceeded effluent limitations as follows:

Pollutant	Permit Limit	Reported Result
TSS	30 DA AVG = 30 mg/L	101 mg/L
	Daily Max = 100 mg/L	101 mg/L
Oil & Grease	30 DA AVG = 15 mg/L	19 mg/L

Note: The short term discharge (flow reported on the DMR was 0.010334 MGD) in November 2014 was from hydraulic testing of the new pipe to outfall 001 after construction and not representative of cooling tower blowdown, RO waste, evaporator coolant and various floor drains flows authorized by the Permit. USEPA R6 2014 Fact Sheet indicates that the TSS, and oil & grease limitations in the Permit are based on 40 CFR 423 Steam Electric Power Generating effluent limitation guidance (ELG)—not ELGs of the construction industry.

Attachment

Operator Response

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November 17, 2015

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

RE: FEEDBACK to NPDES Permit No. NM0031135, Farmington Electric Utility System (FEUS) Bluffview Plant, NPDES Compliance Evaluation Inspection Report Dated October 23, 2015

VIA FEDERAL EXPRESS <Tracking #8082 5490 7902 (EPA), #8082 5490 7898 (NMED)> AND ELECTRONIC MAIL

Dear Ms. Douglas and Mr. Yurdin,

The purpose of this letter is to document corrective actions made as a result of the New Mexico Environment Department (NMED) Compliance Evaluation Inspection (CEI) conducted on September 23 2015; findings were reported on October 23, 2015.

No items were listed as "unsatisfactory" as a result of the NPDES on site facility inspection. Items listed as "marginal" were investigated by FEUS management and corrective action items were created to improve upon existing items or correct the problems that were identified during the NMED inspection. These items have been corrected or improved upon at this time. Such items that were corrected/improved are as follows:

- Discharge Monitoring Reports (DMRs) were revised to reflect the following: Loading calculations were corrected to reflect 24 hour daily flow volumes for the day the particular constituent was sampled, which was based on NMED feedback during the on site inspection. Chlorine and pH values and associated comments were corrected based on NMED feedback during the on-site facility inspection.
- To ensure the third party laboratory conducts the proper laboratory analysis in the future, the comments section on associated chain of custody forms now read "please run using 40 CFR 136 compliant methods."

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- A NIST certified thermometer has been purchased and placed in the water sample refrigerator at the plant. Temperatures are being documented as required.
- A Standard Operating Procedure (SOP) binder has been created, which contains all procedures associated with NPDES permit compliance (chemical transfer, daily sampling, contingency and spill response plan) for the Bluffview plant. Instead of having these items in various places in the plant, now they are all found in one book. This SOP is maintained in the plant control room for easy reference.

Thank you for providing the opportunity to submit feedback to the (NPDES NM0031135) FEUS Bluffview Plant NPDES facility inspection and associated report.

Please contact me directly at (505) 599-8345, by e-mail at adailey@fmtn.org if you have any questions or if any additional information is requested.

Sincerely,

Britt D. Chesnut

Britt Chesnut
Generation Manager
Farmington Electric Utility System

cc: Gladys Gooden Jackson (e-mail)
FEUS Environmental File