NEW MEXICO
ENVIRONMENT DEPARTMENT

Surface Water Quality Bureau

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RON CURRY
Secretary
SARAH COTTRELL
Deputy Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

November 1, 2010

Michael R. Sims, Generation Manager
City of Farmington, Electric Utility System
501 McCormick School Road
Farmington, New Mexico 87401

RE: Minor Non-Municipal, SIC 4911, NPDES Compliance Evaluation Inspection, City of Farmington, Electric Utility System, Animas Power Plant, NM0000043, October 14, 2010

Dear Mr. Sims,

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 Mr. Britt Chesnut, Generation Technical Support Specialist, Farmington Electric Utility System 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 Tates, EPA (6EN-AS) by e-mail
Carol Peters-Wagnon, USEPA (6EN-WM) by e-mail
Diana McDonald, USEPA (6EN-WM) by e-mail
Larry Giglio, USEPA (6WQ-PP) by e-mail
Jennifer Ickes, NMED District I Manager by e-mail
Britt Chesnut, Animas Power Plant by e-mail (bchesnut@fmtn.org)

EPA

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 0 4 3 11	12 1 0 1 0 1 4 17	18 C	19 S 20	2

Remarks: STEAM ELECTRIC GENERATING

Inspection Work Days	Facility Evaluation Rating	BI	QA	Reserved
67 69	70 3	71 N 72	N 73 74	75 MINOR 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)*
City of Farmington, Electric Utility System, Animas Power Plant, 501 McCormick School Road, Farmington, New Mexico 87401. From US 64 (east side of Farmington) at 1200 East Broadway Avenue, turn southwest onto McCormick School Road, travel one block, plant on right. San Juan County

Entry Time /Date: **1050 hours / 10/14/2010**
Exit Time/Date: **1555 hours / 10/14/2010**
Permit Effective Date: **December 1, 2005**
Permit Expiration Date: **November 30, 2010**

Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s)
Michael R. Sims / Generation Manager / 505-599-8342 and fax 505-326-2315
Britt D. Chesnut / Generation Technical Support Specialist / 505-599-8345

Name, Address of Responsible Official/Title/Phone and Fax Number
Michael R. Sims, City of Farmington, Electric Utility System, 501 McCormick School Road / Power Plant Generation Manager / 505-599-8342 and fax 505-326-2315

Contacted: Yes * No

Other Facility Data
Facility Entrance
Latitude N. 36.725611°
Longitude W. -108.191316°

SIC 4911

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
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
S	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 AND PHOTO LOG.**
2. **A COMPLIANCE EVALUATION INSPECTION REPORT FOR INDUSTRIAL STORMWATER (NPDES TRACKING NO. #NMR05B219) WILL BE SUBMITTED UNDER A SEPARATE EPA 3560 FORM.**

Name(s) and Signature(s) of Inspector(s)	Agency/Office/Telephone/Fax	Date
Erin S. Trujillo	**NMED/SWQB/505-827-0418**	**10/28/2010**
/s/ Erin S. Trujillo		
Signature of Management QA Reviewer **Richard E. Powell** ***/s/ Richard E. Powell***	**Agency/Office/Phone and Fax Numbers** **NMED/SWQB/505-827-2798**	**Date** **10/28/2010**

EPA Form 3560-3 (Rev. 9-94) Previous editions are obsolete.

City of Farmington, Electric Utility System, Animas Power Plant - October 14, 2010	PERMIT NO. NM0000043

SECTION A - PERMIT VERIFICATION

PERMIT SATISFACTORILY ADDRESSES OBSERVATIONS ☒ S ☐ M ☐ U ☐ NA (*FURTHER EXPLANATION ATTACHED* ***No***)

DETAILS: **EPA letter dated 01/21/2010 states that permittee's application was received on 12/18/2009.**

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: **Reviewed DMRs submitted since last inspection on 04/22/2009 (2nd Qtr 2009 – 3rd Qtr 2010 DMRs) and records for 10/2010. Discharge number for Outfall 003 is "003B" on monthly DMRs. Permittee provided additional outfall identification in comment field of the DMR form.**

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. **Temperature Meter/Chart**	☒ 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. **TDS Monthly Average**	☐ Y ☒ N ☐ NA

SECTION C - OPERATIONS AND MAINTENANCE

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

DETAILS:

1. TREATMENT UNITS PROPERLY OPERATED.	☒ S ☐ M ☐ U ☐ NA
2. TREATMENT UNITS PROPERLY MAINTAINED. **Screens manually cleaned of debris, collected and disposed**	☒ 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.	☐ Y ☐ N ☒ NA

City of Farmington, Electric Utility System, Animas Power Plant - October 14, 2010	PERMIT NO. **NM0000043**

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: **Discharge from all outfalls occurred in October of 2009. Did not review laboratory reports for additional analytical test results submitted as part of the permit application.**

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. **Not documented on chain of custody (COC) form.**	☐ Y ☒ N ☐ NA
b) PROPER PRESERVATION TECHNIQUES USED. **But, actual technique not documented on COC form.**	☒ Y ☐ N ☐ NA
c) CONTAINERS AND SAMPLE HOLDING TIMES CONFORM TO 40 CFR 136.3. **Container lid not documented on COC form.**	☐ 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**: Daily estimated flow not subject to accuracy provisions. Outfall 001 magnetic meter flow measurement recorded on written logs every 4 hrs; and Outfall 003 and 003A flow estimated using pump rate output (60 gallons per minute).**

1. PRIMARY FLOW MEASUREMENT DEVICE PROPERLY INSTALLED AND MAINTAINED.	☒ Y ☐ N ☐ NA
TYPE OF DEVICE **Outfall 001 magnetic meter; Outfall 003 and 003A pump rate output**	
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: **Did not inspect contract laboratories. Reviewed laboratory and analytical quality control reports for 10/2009.**

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

City of Farmington, Electric Utility System, Animas Power Plant - October 14, 2010	PERMIT NO. **NM0000043**

SECTION F - LABORATORY (CONT'D)

2. IF ALTERNATIVE ANALYTICAL PROCEDURES ARE USED, PROPER APPROVAL HAS BEEN OBTAINED **O&G modified method** ☐ Y ☒ N ☐ NA
On-site temperature chart down on day of inspection, but calibration work order is submitted prior to discharge.

3. SATISFACTORY CALIBRATION AND MAINTENANCE OF INSTRUMENTS AND EQUIPMENT. **Contract lab not inspected** ☒ S ☐ M ☐ U ☐ NA

4. QUALITY CONTROL PROCEDURES ADEQUATE. **Lab QC reports** ☒ S ☐ M ☐ U ☐ NA

5. DUPLICATE SAMPLES ARE ANALYZED. **0** % OF THE TIME. **Repeat Finding** ☐ Y ☒ N ☐ NA

6. SPIKED SAMPLES ARE ANALYZED. **Unknown** % OF THE TIME. **Lab QC reports document spikes.** ☒ Y ☐ N ☐ NA

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

LAB NAME	**1) CH2M HILL OMI (505-326-1918, 325-6953)**	**2) Anachem Inc. (972-727-9003)**
LAB ADDRESS	**615 South Carlton Avenue, Farmington, NM 87401**	**8 Prestige Circle Ste 104, Allen TX 75002-3433**
PARAMETERS PERFORMED	**pH, TSS, TSD**	**O&G, Al, Heptachlor and Heptachlor Epoxide**

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	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
003	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
003A	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**

RECEIVING WATER OBSERVATIONS: **On the day of the inspection, the plant was down for maintenance and repairs. There was no discharge (ND) at outfalls. Willet Ditch was turbid. Close observation of Animas River was not made during this inspection.**

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: **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

City of Farmington, Electric Utility System, Animas Power Plant
NPDES Permit No NM0000043
Compliance Evaluation Inspection
October 14, 2010

Further Explanations

Introduction

On October 14, 2010, Erin Trujillo, New Mexico Environment Department (NMED), Surface Water Quality Bureau (SWQB) conducted a Compliance Evaluation Inspection (CEI) at the City of Farmington, Electric Utility System, Animas Power Plant, 501 McCormick School Road, Farmington, New Mexico 87401 in San Juan County, New Mexico
The facility 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 NM0000043 which regulates discharge of once-through cooling water and screen wash to Willet Ditch thence to the Animas River in Segment 20.6.4.403 *State of New Mexico Standards for Interstate and Intrastate Surface Waters, 20.6.4 New Mexico Administrative Code (NMAC)* of the San Juan River Basin.

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 and website, observations made by the NMED inspectors, and records and reports kept by the Permittee and/or NMED.

Upon arrival at the facility gate at approximately 1050 hours on October 14, 2010, Mr. Britt D. Chesnut, Generation Technical Support Specialist was contacted, then the inspector continued to the plant offices. The inspector made introductions, presented credentials and explained the purpose of the inspection to Mr. Chesnut. The inspector and Mr. Chesnut toured the facility. The inspector met Mr. Michael R. Sims, Generation Manager during the tour. Following the tour and records review, an exit interview to discuss preliminary findings was conducted on-site with Mr. Chesnut. The inspection ended and the inspector left the site at approximately 1555 hours on the day of the inspection. Additional information on laboratory test methods was obtained from Mr. Chesnut on October 22, 2010.

Background/Treatment Scheme

Farmington Electric Utility System is owned and operated by the City of Farmington and serves approximately 44,000 customers. The service territory encompasses the City of Farmington, most of the populated area of San Juan County (including the City of Bloomfield and the San Juan River Valley west from the City to the Navajo reservation) and a portion of Rio Arriba County northeast of the City. The Electric Utility System also provides transmission services for the City of Aztec, which owns its own substation and distribution facilities to Williams Field Services. The Animas Power Plant in the utility system was originally built in 1929 as a hydroelectric generating unit. From 1955 through 1959, four steam turbines and boilers were constructed. The approximately 50.3 mega watt steam electric generation facility consists of five (5) generating units. Two (2) conventional steam turbines (Units 1 and 2) are used in combined cycle arrangement with an 18,680 KW natural gas fired combustion turbine constructed in 1993. Two (2) conventional steam units (Units 3 and 4) are typically not operated according to the on-site permittee representative. The process used to develop electricity from steam includes turbine generators, heat recovery steam generator (HRSG), cooling towers, water pump station, sub-station, and other supporting equipment.

Process water from operations of the power generating facility consists of noncontact once-through condenser cooling water from Willet Ditch that discharges from Outfall 001, back-wash water from a Willet Ditch inlet water screen that discharges from Outfall 003, and back-wash water from another Willet Ditch inlet water screen for the hydroelectric plant that discharges from Outfall 003A. The Animas Power Plant also draws condenser cooling water from the cooling tower in a separate closed circuit system (cooling tower to condenser to cooling tower).

Make-up water for this system is municipal drinking water. The treated cooling water or tower blowdown wastewater from this system is not discharged to Willet Ditch, but enters the collection system for the City of Farmington Waste Water Publicly-Owned Treatment Works.

Willet Ditch, plant intake, and Outfalls 001 and 003 (see Photo #1) are located at the northeast corner of the facility directly east of a clarifier pump house that is no longer used according to the permittee on-site representative. When operating, gravity fed intake water from Willet Ditch is passed through a coarse material traveling screen to remove leaves, tree branches, and trash. After the screen, intake water flows to a sump where it is pumped through the condenser cooling circuit then the noncontact once-through condenser cooling water is discharged from Outfall 001 directly downstream from the intake to Willet Ditch. Periodically, the traveling screen is back-washed to remove coarse build-up and these materials as well as back-wash water is discharged from Outfall 003 (adjacent to Outfall 001). Outfall 001 is sampled from a port prior to mixing with Willet Ditch (see Photo #2), except for temperature, which is at the end of Willet Ditch prior to discharging into the Animas River. Outfall 003 is sampled from the discharge of the screen backwash prior to mixing with Willet Ditch. The hydroelectric plant would also use water from Willet Ditch. Intake water from the ditch would pass through a coarse material screen similar to the one described above and sent through the turbine. Periodically, this screen is back-washed to remove coarse material build-up. Course materials are collected and back-wash water is discharged from Outfall 003A, located approximately 100 feet northwest from Outfall 001 and Outfall 003. Outfall 003A is sampled from the discharge of the screen backwash prior to mixing with Willet Ditch. Solids removed from the traveling screens are placed in open drums, transferred to an on-site trash dumpster, then disposed at a municipal solid waste landfill.

Section B - Recordkeeping and Reporting – Overall Rating of "M = Marginal";

Section D - Self-Monitoring – Overall Rating of "M = Marginal"; and

Section F – Laboratory – Overall Rating of "M = Marginal"

Permit Requirements for Recordkeeping and Reporting, Self Monitoring and Laboratory

Part II.C (Monitoring of Intake Water and Minimum Quantification Level (MQL)) of the permit states:

> *If any effluent analytical results are detected above MQL for the following pollutants, a sample of intake water shall be taken and analyzed: Dissolved Aluminum, Heptachlor, Heptachlor Epoxide. If any of the pollutants is detected above its MQL in the INTAKE water sample, the results shall be reported orally to EPA Region 6, Water Quality Protection Division, NPDES Permits (6WQ-P), Dallas, Texas, and NMED, Surface Water Quality Bureau (SWQB), Santa Fe, New Mexico, within 24 hours from the time the permittee becomes aware of the potential violation of water quality standards followed by a written report in five days.*

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

> *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.*
>
> *c. 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.*

Part III.D.4 (Standard Conditions, Discharge Monitoring Reports and Other Reports) of the permit states:

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Monitoring results must be reported on Discharge Monitoring Report (DMR) Form EPA No. 3320-1 in accordance with the "General Instructions" provided on the form.

Findings for Recordkeeping and Reporting, Self-Monitoring and Laboratory

Pesticide analytical testing for Heptachlor and Heptachlor Epoxide of the intake water in October 2009 was not conducted at a low enough detection limit to determine if the pollutants were above MQLs subject to reporting requirements in Part II.C of the permit. Analytical test results of the discharge at Outfall 001 and intake water for Heptachlor and Heptachlor Epoxide were not detected, but the practical quantification limit was 0.10 µg/L (Anachem, Inc. report dated November 4, 2009) which is above the 0.05 µg/L MQL in Part II.A of the permit. Also, it was not documented that sample container caps for the Heptachlor and Heptachlor Epoxide Outfall 001 and intake water monitoring conformed to 40 CFR 136.3. Table II (Required Containers, Preservation Techniques and Holding Times) of 40 CFR 136.3 lists that glass containers for pesticide tests are to have FP (e.g., fluoropolymer, polytetrafluoroethylene (PTFE), Teflon®) lined caps. Cap material for the glass containers was not recorded on chain of custody forms or discussed in the facility's written sampling plan. Cooling preservation during composite sample collection was discussed in the facility's written sampling plan, but actual sample preservation was not documented on completed composite sample or chain of custody forms. Table II of 40 CFR 136.3 lists ≤6°Celsius cooling preservation requirements for pesticide tests. The chain of custody form for Outfall 001 Heptachlor and Heptachlor epoxide monitoring in October 2009 did record that the cooler/temperature blank transported with the samples was within acceptable temperature range when it arrived at the laboratory. But, the chain of custody form was completed with a code "1" which indicated no preservation for the pesticide samples. All preservation methods need to be completed on chain of custody forms.

Outfalls 003 and 003A quarterly effluent monitoring for Oil & Grease was not conducted according to EPA approved test procedures in October 2009. Approved methods in 40 CFR 136.3 for Oil & Grease include Standard Methods 1664A. Anachem, Inc. laboratory report dated November 2, 2009 indicated that Oil & Grease analytical testing was by EPA 1664 Modified. **This is a repeat finding**. Anachem, Inc. letter dated May 19, 2009 to the Permittee states, *"Anachem follows the EPA method with the exception of one modification, the use of vegetable oil as a spike instead of the mixture of hexadecane/steric acid."* The Regional Administrator of the region in which the discharge will occur has final responsibility for approval of any alternate test procedure proposed by the responsible person or firm making the discharge (see 40 CFR 136.5). It was not documented that the Permittee submitted an application for approval of alternate test procedures to EPA Region 6 or obtained approval.

Outfall 001 daily flow estimate and average temperature monitoring need to be re-calculated for the October 2009 DMR and discrepancies explained on facility records/logs. Outfall 001 flow measurements on the facility's hand written logs (Daily/Water Treatment Logs) were inconsistent with printed spreadsheets for October 27, 2009. It appears that the wrong data was used on the flow measurement printed spreadsheets. Because Part II.I of the permit requires flow-weighted average temperatures, average monthly temperature also needs to be re-calculated for the October 2009 DMR. Outfall 001 temperature hand written logs were also inconsistent with spreadsheet record keeping for October 26, 2009. But, in this case, the on-site permittee representative stated that the temperature spreadsheet data used for reporting purposes on the DMR were more accurate readings from circular charts.

Outfall 001 TDS effluent loading was not calculated using the correct daily effluent flow estimate on the October 2009 DMR. Loading is calculated using the following equation: *Flow on day of sampling (MGD) x concentration (mg/L) x 8.34 (lbs/gal) = Loading (lbs/day).* CH2M HILL OMI report dated November 24, 2009 indicates that a TDS 12-hour composite sample was collected on October 26, 2009 and the result was 472 mg/L. Based the reported loading on the October 2009 DMR (44,758 lbs/day), it appears that the incorrect average flow measurement for October 27, 2009 as discussed above, in this case 11.37 MGD, was used [44,758 / (472 x 8.34) = 11.37]. The chain of custody for this sample was not included with the analytical report. The permittee may have additional records confirming the date of sample

collection. Record keeping needs to be corrected and the correct daily flow needs to be used in the reported TDS loading calculation. For example, the calculated average flow for October 26, 2009 was 11.28 MGD according to the facility's record keeping. In this case, the TDS monthly average loading would be 44,403 lbs/day (11.28 x 472 x 8.34).

Outfall 003 April 2009 to September 2010 DMRs (excluding December 2009 thru March 2010 when there was no reported discharge) did not include the actual units, frequency or sample type per instructions provided on the form. Also, the actual frequency for flow measurement reported on the July, August and September 2009 DMRS were incorrect. For example, the monthly frequency was incorrectly reported to be "4/90" on the September 2009 DMR.

Quality control/quality assurance duplicate samples were not collected and analyzed. Procedures for field quality assurance were discussed in the facility's written sampling plan. Ten percent of the samples should be duplicated. It was also noted that the facility's written sampling plan needs to be updated with approved analytical procedures for pH and TSS monitoring. EPA Methods 150.1 (pH) and 160.2 (TSS) were withdrawn in March of 2007 (Federal Register/Vol. 72, No. 47/Monday, March 12, 2007/Rules and Regulations).

NMED/SWQB
Official Photograph Log
Photo # 1

Photographer: Erin S. Trujillo	Date: 10/14/2010	Time: 1123 hours
City/County: Farmington / San Juan County		State: New Mexico
Location: Farmington Animas Power Plant		
Subject: Willet Ditch, Outfall 001 and Outfall 003 at intake structure.		

NMED/SWQB
Official Photograph Log
Photo # 2

Photographer: Erin S. Trujillo	Date: 10/14/2010	Time: 1224 hours
City/County: Farmington / San Juan County		State: New Mexico
Location: Farmington Animas Power Plant		
Subject: Arrow points to sampling port for Outfall 001. Discharge pipe was painted during inspection.