



NEW MEXICO
ENVIRONMENT DEPARTMENT



Surface Water Quality Bureau

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DAVE MARTIN
Secretary

RAJ SOLOMON, P.E.
Deputy Secretary

Certified Mail – Return Receipt Requested

August 3, 2011

Allen Briley, City Manager
City of Elephant Butte
Post Office Box 1080
Elephant Butte, NM 87935

RE: Minor Municipal; SIC 4952; NPDES Compliance Evaluation Inspection; Sierra County Regional Wastewater Treatment Plant; NPDES Permit No. NM0030864; July 27, 2011

Dear Mr. Briley:

Enclosed, please find a copy of the report and checklist 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 and treatment scheme 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, Region VI
Enforcement Branch (6EN-WM)
Suite 1200
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

If you have any questions about this inspection report, please contact me at (505) 827-1041 or sandra.gabaldon@state.nm.us

Sincerely,

Sandra Gabaldón
Surface Water Quality Bureau

Cc: Marcia Gail Adams, EPA, Enforcement Section (6EN-AS) by e-mail
Larry Giglio, EPA (6EN-P) by e-mail
Carol Peters-Wagnon, EPA (6EN-WM) by e-mail
Diana McDonald, EPA (6EN-WM) by e-mail
Samual Tates, EPA, (6W-AS) by e-mail
NMED District III 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	3	0	8	6	4	11	12	1	1	0	7	2	7	17	18	C	19	S	20	1	
Remarks																													
M I N O R M U N I C I P A L																													
Inspection Work Days						Facility Evaluation Rating						BI		QA		Reserved													
67	0	0	1	69	70	2	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) SIERRA COUNTY REGIONAL WWTP – I-25 SOUTH, EXIT 79, LEFT ON HIGHWAY 181 (JUST PAST MCDONALD’S), TURN RIGHT ON SUNSET RIDGE ROAD, TRAVEL 0.4 MILES TO STOP SIGN. TRAVEL 0.1 MILES TO DIRT ROAD, TURN RIGHT. FOLLOW TO WWTP.		Entry Time /Date 1100 HOURS / 07-27-2011	Permit Effective Date August 1, 2007
SIERRA COUNTY		Exit Time/Date 1215 HOURS / 07-27-2011	Permit Expiration Date July 31, 2012
Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s) JERRY BONNER, WASTEWATER OPERATOR IV (575) 740-8001		Other Facility Data	
Name, Address of Responsible Official/Title/Phone and Fax Number ALLEN BRILEY, CITY MANAGER (575) 744-4892 Village of Elephant Butte Post Office Box 1080 Elephant Butte, NM 87935		Contacted Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> *	
		GPS: N. 33.15445° W. – 107.23116° SIC: 4952	

Section C: Areas Evaluated During Inspection

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

S	Permit	U	Flow Measurement	M	Operations & Maintenance	N	CSO/SSO
M	Records/Reports	S	Self-Monitoring Program	S	Sludge Handling/Disposal	N	Pollution Prevention
S	Facility Site Review	S	Compliance Schedules	S	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)

- See attached checklist and further explanation report.

Name(s) and Signature(s) of Inspector(s) SANDRA GABALDON	Agency/Office/Telephone/Fax NMED/SWQB (505) 827-1041	Date August 3, 2011
Signature of Management QA Reviewer Richard Powell	Agency/Office/Phone and Fax Numbers NMED / SURFACE WATER QUALITY BUREAU (505) 827-2798	Date August 3, 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

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.
DETAILS:

S M U NA (FURTHER EXPLANATION ATTACHED YES)

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.
DETAILS:

S M U NA (FURTHER EXPLANATION ATTACHED YES)

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 . **GENERATOR ONSITE**

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

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 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 YES).
 DETAILS:

1. PRIMARY FLOW MEASUREMENT DEVICE PROPERLY INSTALLED AND MAINTAINED. Y N NA
 TYPE OF DEVICE 6-INCH PARSHALL FLUME

2. FLOW MEASURED AT EACH OUTFALL AS REQUIRED. - **BATCH DISCHARGE** 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:

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. S M U NA
5. DUPLICATE SAMPLES ARE ANALYZED. 100 % OF THE TIME - **WHEN DISCHARGING**. Y N NA
6. SPIKED SAMPLES ARE ANALYZED. 10 % OF THE TIME. **N - WHEN DISCHARGING** Y N NA
7. COMMERCIAL LABORATORY USED. Y N NA

LAB NAME WILKINS ENVIRONMENTAL

INTERLAB

LAB ADDRESS 832NW 67TH STREET; OKLAHOMA CITY, OK 73116

POST OFFICE BOX 3497 ; LAS CRUCES, NM 88003

PARAMETERS PERFORMED WHOLE EFFLUENT TOXICITY

BOD, TSS, E.COLI

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: THIS FACILITY BATCH DISCHARGES. NO DISCHARGE WAS OCCURRING DURING THIS INSPECTION.

SECTION H - SLUDGE DISPOSALSLUDGE 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: agricultural (e.g., FOREST, AGRICULTURAL, PUBLIC CONTACT SITE)

SECTION I - SAMPLING INSPECTION PROCEDURES (FURTHER EXPLANATION ATTACHED __).

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

Sierra County Regional Wastewater Treatment Plant
NPDES Permit No. NM0030864
Compliance Evaluation Inspection
July 27, 2011

Introduction:

On July 27, 2011, a compliance evaluation inspection (CEI) was conducted at the Sierra County Regional Wastewater Treatment Plant (WWTP) located near Elephant Butte, New Mexico, by Sandra Gabaldón and Sarah Holcomb of the State of New Mexico Environment Department (NMED), Surface Water Quality Bureau (SWQB). The Sierra County Regional WWTP has a design flow of 0.6 million gallons a day (MGD), is classified as a minor municipal discharger under the federal Clean Water Act (CWA), Section 402 National Pollutant Discharge Elimination System (NPDES) permit program and is assigned permit #NM0030864. This permit allows discharges to the Cuchillo Negro creek, thence to the Rio Grande in Segment 20.6.4.103 NMAC of the Rio Grande Basin.

The NMED performs a certain number of CEI's 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, onsite observation by NMED personnel, and verbal information provided by the permittee's representative, Mr. Jerry Bonner.

An entrance interview was conducted with Mr. Jerry Bonner, Wastewater Operator IV at approximately 1100 hours on July 27, 2011. The inspectors made introductions, presented credentials and discussed the purpose of the inspection.

Treatment Scheme:

Raw sewage flows through the collection system via six (6) lift stations to the WWTP. The final lift station lifts raw sewage to the treatment plant and is located approximately a quarter of a mile from the treatment plant. An additional lift station is located at the treatment plant to allow decant from the digester and the drying beds back to the head of the treatment plant.

At the entrance works, raw sewage passes through a manual bar screen, grit chamber and Parshall flume.

The main treatment units for this facility are two sequencing batch reactor (SBR) basins which allow for aeration, mixing, anoxic and decanting of influent. The design flow for the facility is 0.6 MGD, however, 0.2 MGD influent is being treated. The mixed liquor suspended solids (MLSS) currently is approximately 1,500 mg/L.

Following the SBR treatment units, the flow enters a rectangular covered flow equalization basin before entering the disinfection unit. This unit is covered to prevent algal growth in the effluent prior to discharge. This also increases the bulb life span in the Ultraviolet (UV) disinfection chamber. Effluent flows past the UV disinfection into a 3" Parshall flume for flow measurement prior to being discharged to Cuchillo Negro Creek.

Sierra County Regional WWTP
Compliance Evaluation Inspection
NPDES Permit No. NM0030864
July 27, 2011

Further Explanations

Note: The sections are arranged according to the format of USEPA Form 3560-3 and checklist, attached, rather than being ranked in order of importance.

Section B – Recordkeeping and Reporting – Overall Rating “Marginal”

The permit requires in Part II. Section C:

Monitoring information shall be on Discharge Monitoring Report Form (EPA 3320-1) as specified in Part III.D.4 of this permit and shall be submitted quarterly. Each quarterly submittal shall include separate forms for each month of the reporting period.

Findings for Section B – Recordkeeping and Reporting:

The Permittee has failed to submit their May 2011 DMR to EPA and NMED. The inspector requested bench sheets from May 2011 to review, however, no DMR was submitted and the inspector was unable to review data to verify analytical data consistency with that reported on the DMR. The inspector was also unable to verify effluent loading calculations.

Section C – Operations and Maintenance: Overall rating of “Marginal”

Permit requirements, Part III. B. 3.b: Proper Operation and Maintenance:

- b. The permittee shall provide an adequate operating staff which is duly qualified to carry out operation, maintenance and testing functions required to insure compliance with the conditions of this permit.*

Findings for Section C – Operation and Maintenance:

Mr. Bonner, Certified Operator IV, is the only operator available to do operation, maintenance and testing at this facility. The operator stated that there is one other man currently working at the WWTP but he is not certified, nor has he been trained appropriately. Mr. Bonner has stated that if he was allowed to supervise this individual, he would be able to train him appropriately.

Section D – Self-Monitoring : Overall rating of “Satisfactory”

The permit requires in Part I.A. Final Effluent Limits:

Biochemical Oxygen Demand and Total Suspended Solids 3-hour composite sampling.

Findings for Self-Monitoring:

The Sierra County Regional WWTP is an SBR that has batch discharges. The permit requires a three-hour composite sample for BOD and TSS. It is impossible for this facility to collect three-hour composite samples when they only discharge twice daily. It would be more appropriate for the facility to be required to do grab samples rather than have composite samples.

Section E – Flow Measurements: Overall rating of “Unsatisfactory”

The permit requires in Part III. C. 6: Flow Measurement

Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated, and maintained to insure that the accuracy of the measurements is consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than 10% from true discharge rates throughout the range of expected discharge volumes.

The operator had no calibration records available from an outside representative. EPA recommends that calibration of all flow measurement devices performed annually.

Section F – Laboratory: Overall rating of “Marginal”

The permit requires in Part III.C.5:

- a. *Monitoring must be conducted according to test procedures approved under 40 CFR 136, unless other test procedures have been specified in this permit or approved by the Regional Administrator.*

Findings for Laboratory:

The permittee provided the inspector with bench sheets from Interlab laboratory that analyses BOD and TSS for the facility. The laboratory reported that the test methods being used are EPA 405.1 and 160.2, respectively. These two methods were withdrawn from 40 CFR 136 on March 12, 2007. The current approved methods are SM5210B and SM2540C for BOD and TSS.