



**NEW MEXICO
ENVIRONMENT DEPARTMENT**



Surface Water Quality Bureau

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Deputy Secretary

ERIKA SCHWENDER
Director
Resource Protection Division

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

November 12, 2013

The Honorable Windell Bridges, Mayor
Village of Fort Sumner
Post Office Box 180
Fort Sumner, New Mexico 88119

RE: Village of Fort Sumner Wastewater Treatment Facility; Minor Municipal; SIC 4952; NPDES Compliance Evaluation; NPDES Permit No. NM0023477; October 29, 2013.

Dear Mr. Bridges:

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 the requirements of the Clean Water Act.

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. Further, you are encouraged to notify in writing both the USEPA and NMED regarding modifications and compliance schedules at the addresses below:

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

Bruce Yurdin, Program Manager
New Mexico Environment Department
Surface Water Quality Bureau
Point Source Regulation Section
Post Office Box 5469
Santa Fe, NM 87502

Village of Fort Sumner

November 12, 2013

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

Sincerely,

/s/ Bruce Yurdin

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

Cc: Rashida Bowlin, USEPA (6EN-AS) via e-mail
Carol Peters-Wagnon, USEPA (6EN-WM) via e-mail
Racquel Douglas, USEPA (6EN-WM) via e-mail
Larry Giglio, USEPA (6WQ-PP) via e-mail
Hannah Branning, USEPA (6EN-WC) via e-mail
Jan Walker, USEPA (6EN) via e-mail
NMED District I, via e-mail

VILLAGE OF FORT SUMNER

PERMIT NO. 0023477

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 NO).
 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. Y N NA
3. SECONDARY INSTRUMENTS (TOTALIZERS, RECORDERS, ETC.) PROPERLY OPERATED AND MAINTAINED. Y N NA
4. CALIBRATION FREQUENCY ADEQUATE. Last calibration was completed in March 2012 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. 0 % OF THE TIME. Y N NA

6. SPIKED SAMPLES ARE ANALYZED. % OF THE TIME. Y N NA

7. COMMERCIAL LABORATORY USED. Y N NA

LAB NAME Tucumcari Wastewater Treatment Facility Bio Aquatic Testing, Inc.
 LAB ADDRESS 1700 N. Rock Island Street 2501 Mayes Road Suite 100
 PARAMETERS PERFORMED TSS, BOD, E. coli Biomonitoring

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	None	None	None	None	None	Clear	

RECEIVING WATER OBSERVATIONS

SECTION H - SLUDGE DISPOSAL

SLUDGE DISPOSAL MEETS PERMIT REQUIREMENTS. S M U NA (FURTHER EXPLANATION ATTACHED NO).
 DETAILS:

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

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

3. FOR LAND APPLIED SLUDGE, TYPE OF LAND APPLIED TO: 1 (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

Further Explanations
Ft. Sumner Wastewater Treatment Plant
NPDES Permit No. NM0023477
Inspection Date: October 29, 2013

INTRODUCTION:

On October 29, 2013, Sandra Gabaldón and Daniel Valenta of the New Mexico Environment Department (NMED), Surface Water Quality Bureau (SWQB) conducted a Compliance Evaluation Inspection (CEI) at the Fort Sumner Wastewater Treatment Plant (WWTP). The Fort Sumner WWTP has a design flow capacity of 0.21 MGD (million gallons per day) and is classified as a minor municipal 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 NM0023477. This permit regulates the WWTP discharge to the Pecos River in Segment 20.6.4.207 of the Pecos River Basin according to the *State of New Mexico Standards for Interstate and Intrastate Surface Waters, 20.6.4. NMAC*. This segment includes the designated uses of irrigation, marginal warm water aquatic life, livestock watering, wildlife habitat and secondary contact.

The NMED performs a certain number of CEIs for the U.S. Environmental Protection Agency (USEPA), Region VI, under the NPDES permit program, in accordance with the federal Clean Water Act. USEPA uses these inspections to determine compliance with the NPDES permit program. This inspection report is based on information provided by the permittee's representative, observations made by the NMED inspector, and records and reports kept by the permittee and/or NMED.

Upon arrival at the WWTP at 1035 hours on October 29, 2013, the inspectors met Mr. Louie Gallegos, Lead Operator. Ms. Gabaldon explained the purpose of the inspection and presented her credentials. A tour of the facility was made. Record review was completed. An exit conference to discuss preliminary findings was held at the Mayor's office with Mr. Gallegos and Ms. Bonnie Lilly, City Clerk. Mayor Bridges spoke with Ms. Gabaldon via the telephone prior to the inspectors' departure.

TREATMENT SCHEME:

There are three lift stations throughout the Village's collection system. Flow from the village proceeds to the WWTP. The entrance works to the plant consist of a comminutor with a bypass to an automated bar screen which runs every 15 minutes. The grit is currently land filled. The headworks also consist of an aerated grit chamber and a six-inch Parshall flume. The influent is then lifted by two alternating submersible pumps to the two separate SBR (Sequencing Batch Reactors) basins.

Flow is cycled through the basins during phases which consists of fill/mix, settling and decant periods to treat the wastewater entering the plant. There are four small blowers which provide aeration to these two units. An aerobic sludge digester is located between the two SBR units. Decant water from the SBR basins enter a flow equalization unit (an old Schreiber unit) which ensures an even flow to the disinfection system.

Disinfection of the wastewater is achieved through Ultraviolet radiation. A single bank of lights is enclosed within the effluent flow to allow time for disinfection. Cleaning of the UV lights is accomplished using a food grade acid. During cleaning, the bank of lights is removed and mounted on a stand and washed with acid, rinsed and placed back into the effluent channel. An alarm warning is sent to the operators via telephone if there are any problems with the UV system.

Once flow passes through the UV disinfection unit, it proceeds through the old chlorine contact chamber before entering a 6-inch Parshall flume for flow measurement. Chlorination capabilities continue to be maintained at the plant in case the UV disinfection system needs to go offline for repairs.

SLUDGE:

Sludge is periodically wasted from the SBR and allowed to aerobically digest in the digester. Wasted sludge from the digester is then placed in the sludge drying beds for a period of at least 90 days. When the sludge is completely dry, it is removed and placed on a cement pad where it is windrowed and allowed to sit. Sludge is currently taken to the De Baca County Landfill for final disposal.

Note: The sections are arranged according to the format of the enclosed EPA Inspection Checklist (Form 3560-3), rather than being ranked in order of importance.

Section B – Recordkeeping and Reporting Evaluation – Overall Rating of “Marginal”.

The permit requires, in Section B. Schedule of Compliance:

“The permittee shall achieve compliance with WET effluent limitations for C.Dubia sublethal endpoint specified for discharges in accordance with the following schedule.”

- a. The permittee shall submit a progress report outlining the status of the activities during the months of January, April, July, and October until compliance is achieved as stated above.*

Findings for Recordkeeping and Reporting:

The permittee has failed to submit progress reports outlining the status of activities for achievement of final WET effluent limits for C. dubia sublethal endpoint. The permittee is required to submit progress reports during the months of January, April, July and October. The permit was issued July 1, 2012. The permittee is currently missing eight progress reports.

Section C – Operations and Maintenance – Overall Rating of “Satisfactory”

Part III.B.3 of the permit states:

- a. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee as efficiently as possible and in a manner which will minimize upsets and discharges of excessive pollutants and will achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of this permit.*
- 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 Operation and Maintenance:

Mr. Gallegos is the Lead Operator at this facility with a Wastewater Level III certification. Mr. Richard Terrell, also a certified Level III Operator, is also employed by the Village of Fort Sumner. However, Mr. Gallegos will retire in the next few years and it is beneficial for the Village to have at least two Certified Level III operators on site.

There are no measures established for emergency treatment control at this facility. This is a **repeat finding**.

Section E – Flow Measurement – Overall Rating of “Unsatisfactory”

The Permit requires in Part III, Section C.3:

The permittee shall retain records of all monitoring information, including calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, for a period of at least 3 years from the date of the sample, measurement, report, or application.

The Permit requires in Part III, Section C.5.b:

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.

The Permit requires in Part III, Section C.6:

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 discharge. The devices shall be installed, calibrated, and maintained to insure that the accuracy of the measurements is consistent with the accepted capability of the 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.

Findings for Flow Measurement:

The facility provided calibration records of their ultrasonic flow meter from March 2012. The flow meter needs to be calibrated on an annual basis.

The permittee does not do calibration checks to assure the flows measured are within 10% of the actual effluent flow.

Section F – Laboratory – Overall Rating of “Unsatisfactory”

The Permit requires in Part III, Section C.5:

- 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.*

Findings for Laboratory:

The permittee is performing their pH test using phenol red on a DR/890 meter. This method has not been approved by 40 CFR 136 for compliance sampling. The only methods approved by 40 CFR 136 are:

Parameter	Approved Method	Deleted Method
Hydrogen Ions (pH)	SM 21st Ed., 4500 – H AE	EPA Method 150.1

The facility is using a thermometer to verify the temperature of their pH sample along with other samples prior to being shipped to contract laboratories. When the inspector asked to see calibration records of the thermometer, the operator was not aware that the laboratory thermometer needed to be calibrated against National Institute of Standards and Technology (NIST) platinum resistance thermometer (SPRT). The SPRT maintains calibrations traceable to the International Temperature Scale of 1990 (ITS-90), with a maximum expanded uncertainty of 0.7 mK.

The permittee uses a Sigma 900 Composite Sampler to take samples for their biomonitoring test requirements. However, on this day, the permittee was unable to get the sampler to function. The permittee had previously sampled their WET test in March 2013. It is important that all equipment is maintained and kept in functioning operation for the samples to be adequately taken. The permittee suggested that they will call the manufacturer and see if they can troubleshoot the issue over the telephone prior to having someone come out and take a look.