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DAVE MARTIN  
Secretary

RAJ SOLOMON, P.E.  
Deputy Secretary

*Certified Mail - Return Receipt Requested*

June 1, 2011

The Honorable Danny J. Cruz, Mayor  
Town of Springer  
606 Colbert Avenue  
P.O. Box 488  
Springer, New Mexico 87747

**RE: Minor Municipal, SIC 4952, NPDES Compliance Evaluation Inspection, Town of Springer Waste Water Treatment Plant, NM0030295, May 5, 2011**

Dear Mayor Cruz,

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 Ms. Laura Danielson, Town of Springer, Waste Water Supervisor 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-Wagon, USEPA (6EN-WM) by e-mail  
Diana McDonald, USEPA (6EN-WM) by e-mail  
Larry Giglio, USEPA (6WQ-PP) by e-mail  
Robert Italiano, NMED District II, Manager by e-mail  
Laura Danielson, Town of Springer, Waste Water Supervisor by e-mail



**SECTION A - PERMIT VERIFICATION**

PERMIT SATISFACTORILY ADDRESSES OBSERVATIONS

S  M  U  NA (FURTHER EXPLANATION ATTACHED No)

DETAILS: **Permittee name is Town of Springer as indicated on their application; not City of Springer as indicated on permit.**

- 1. CORRECT NAME AND MAILING ADDRESS OF PERMITTEE. **See notes above.**  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. **Outfall tie-in not constructed/completed.**  Y  N  NA
- 4. ALL DISCHARGES ARE PERMITTED. **No discharge reported.**  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 previous inspection on 06/11/2009 (2<sup>nd</sup> Qtr 2009). No discharge reported. NMED SWQB missing March 2011 DMR.**

- 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. **Repeat finding. No updated plant records.**  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: **Approximately 10,000 gallon sewage overflow found on August 19, 2010. After bar screen, wet well/EQ basin, and emergency lagoon, the treatment system was bypassed on the day of this inspection.**

- 1. TREATMENT UNITS PROPERLY OPERATED. **Repeat finding.**  S  M  U  NA
- 2. TREATMENT UNITS PROPERLY MAINTAINED. **Repeat finding. Improvements - Repairs had been made to Aeroter chain.**  S  M  U  NA
- 3. STANDBY POWER OR OTHER EQUIVALENT PROVIDED. **No standby or equivalent power. Repeat finding.**  S  M  U  NA
- 4. ADEQUATE ALARM SYSTEM FOR POWER OR EQUIPMENT FAILURES AVAILABLE. **Repeat finding.**  S  M  U  NA
- 5. ALL NEEDED TREATMENT UNITS IN SERVICE. **Repeat finding.**  S  M  U  NA
- 6. ADEQUATE NUMBER OF QUALIFIED OPERATORS PROVIDED. **Two certified wastewater operators**  S  M  U  NA
- 7. SPARE PARTS AND SUPPLIES INVENTORY MAINTAINED. **Repeat finding.**  S  M  U  NA
- 8. OPERATION AND MAINTENANCE MANUAL AVAILABLE.  Y  N  NA
- STANDARD OPERATING PROCEDURES AND SCHEDULES ESTABLISHED. **Repeat finding.**  Y  N  NA
- PROCEDURES FOR EMERGENCY TREATMENT CONTROL ESTABLISHED. **Repeat finding.**  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? **NMED SWQB = Y; USEPA = Not documented.**  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? **None reported.**  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: **No discharge reported. No written sample collection procedures.**

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 **No**).  
 DETAILS: **Permit Frequency 2/Week, Type Instantaneous. No effluent flow measurement installed. No discharge reported.**

1. PRIMARY FLOW MEASUREMENT DEVICE PROPERLY INSTALLED AND MAINTAINED.  Y  N  NA  
 TYPE OF DEVICE

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 **No**).  
 DETAILS: **No discharge reported (no monitoring). pH and TRC would need to be analyzed on-site. No written procedures.**

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. \_\_\_\_% 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  
LAB ADDRESS  
PARAMETERS PERFORMED

**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
<b>001</b>	<b>No discharge</b>						

RECEIVING WATER OBSERVATIONS: No discharge.

**SECTION H - SLUDGE DISPOSAL**

SLUDGE DISPOSAL MEETS PERMIT REQUIREMENTS.  S  M  U  NA (FURTHER EXPLANATION ATTACHED Yes).  
DETAILS: **Undocumented amount of sewage sludge disposed (stored greater than 2 years) in former North Lagoon area.**

- 1. SLUDGE MANAGEMENT ADEQUATE TO MAINTAIN EFFLUENT QUALITY. **No effluent.**  S  M  U  NA
- 2. SLUDGE RECORDS MAINTAINED AS REQUIRED BY 40 CFR 503. **No records.**  S  M  U  NA
- 3. FOR LAND APPLIED SLUDGE, TYPE OF LAND APPLIED TO: **Not Applied/Disposed on Surface** (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

**Town of Springer Waste Water Treatment Plant**  
**NPDES Permit No. NM0030295**  
**Compliance Evaluation Inspection**  
**May 5, 2011**

**Further Explanations**

**Introduction**

On May 5, 2011, Erin Trujillo, accompanied by Daniel Valenta, both of the New Mexico Environment Department (NMED), Surface Water Quality Bureau (SWQB) conducted a Compliance Evaluation Inspection (CEI) at the Town of Springer Waste Water Treatment Plant (WWTP) east of Springer in Colfax County, New Mexico. The WWTP has a design flow of 0.30 million gallons per day (MGD) 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 NM0030295 which regulates discharge of treated effluent from outfall 001 to the Cimarron River in Segment 20.6.4.306 *State of New Mexico Standards for Interstate and Intrastate Surface Waters, 20.6.4 New Mexico Administrative Code (NMAC)*. This segment includes the designated uses of irrigation, warmwater aquatic life, livestock watering, wildlife habitat and primary contact.

The NMED performs a certain number of CEIs each year for the U.S. Environmental Protection Agency (USEPA), Region VI. The purpose of this inspection is to provide the USEPA with information to evaluate the Permittee's compliance with the NPDES permit. This inspection report is based on information provided by the Permittee's representatives, observations made by the NMED inspectors, and records and reports kept by the Permittee and/or NMED.

The inspector made introductions, stated the purpose of the inspection and presented credentials to Ms. Laura Danielson, Town of Springer, Water and Wastewater Supervisor at the Town of Springer's Water Treatment Plant (WTP) at approximately 1030 hours. The inspectors and Ms. Danielson toured the WWTP starting at approximately 1340 hours. Preliminary findings were discussed with Ms. Danielson during the inspection and at an exit interview at the end of the inspection. The inspection at the WWTP ended at approximately 1550 hours on May 5, 2011. Mr. Danny J. Cruz, Mayor, Town of Springer was not available on the day of the inspection.

There has been no reported discharge into the Cimarron River from the facility. Cimarron River from Canadian River to Cimarron Village does not fully support warmwater aquatic life. Probable causes of impairment are nutrient/eutrophication biological indicators. The Cimarron River Watershed Total Maximum Daily Load (TMDL) dated September 3, 2010 establishes Phase 1 and Target nutrient wasteload allocations for total Phosphorus and total Nitrogen. The Town of Springer WWTP is not designed to treat effluent for the removal of nitrogen and phosphorus. The Town of Springer submitted an application to the NMED Groundwater Quality Bureau (GWQB) on April 25, 2011 for activated sludge treatment with UV disinfection and effluent storage in evaporation lagoons.

**Treatment Scheme and Solids Management**

The Town of Springer has a population of approximately 1,285 (2000 Census). The Springer Correctional Facility has an inmate population of 300. The Town of Springer WWTP has not been fully or consistently operational since initial construction of a new package plant was completed in January of 2007. The following is a description of the intended hydraulic flow pattern for the WWTP and solids management:

- Influent passes through a 6-inch Parshall flume with an ultrasonic flow meter connected to the plant's Programmable Logic Controller. Flow continues through an automatic mechanical bar screen with a manually-cleaned bypass bar screen in channel then enters an influent wet/equalization (EQ) basin. The wet well contains a vertical turbine mixer and two submersible pumps. The wet well overflows to a 1-million gallon PVC lined lagoon.
- After the EQ basin, flow would be pumped to a Wes Tec hybrid activated sludge plant that includes a STM-aerator aeration mixing unit. The plant was designed to accommodate average daily flow of 150,000 gallons per day (gpd) with a peak hourly flow of 300,000 gpd. The STM-Aerotator mechanism would rotate in the aeration basin providing air and mixing for the fixed and suspended growth bacteria. The activated sludge fixed film system has an aeration basin volume of 56,540 gallons with a maximum water depth of 15.5 feet. The STM Aerotor would capture atmospheric air and slowly release it as coarse bubble aeration. The amount of aeration would be controlled using a variable speed drive connected to a rotor causing it to rotate faster or slower based on the actual oxygen demand. During the rotation, cascade aeration would elevate the dissolved oxygen in the upper layer of the basin. The combination of the slow rotation of the STM-Aerotator, coarse bubbler release and additional peripheral mixing from the paddle would insure a thoroughly mixed system. The STM-Aerotator includes a large surface area for fixed film growth. The polypropylene discs provide an environment for attached growth organisms. The fixed film component would increase the effective sludge age and improve the sludge settling characteristics.
- After the aeration basin, the influent would flow into a rectangular chain drive secondary clarifier with polychem chain and flight sludge collector assembly. Return activated sludge (RAS) and scum skimming from the clarifier would be returned by gravity flow to the influent wet well/EQ basin and then would be pumped back to the aeration basin.
- After the clarifier, flow would enter an Ultra-violet (UV) unit with two banks of bulbs constructed in series.
- A tie in and outfall to the Cimarron River would be constructed.
- Waste activated sludge (WAS) would be pumped using a submersible pump from a collection trough at the bottom of the clarifier to the aerobic sludge digester with a Hurricane mixer. WAS would be removed from the digester when needed. During sludge removal, a polymer mixture would be added to the sludge in the plant's UV/Lab building. Liquid would be decanted and returned to the influent wet well/EQ basin. The sludge would be dewatered by a 190-lbs/hour belt press on site. A screw feeder would place sludge in an on-site dumpster. The Permittee's application stated that the sludge would be disposed of off-site at the Northeastern New Mexico Regional Landfill in Wagon Mound, Mora County, New Mexico. The Permittee has indicated that sludge would be disposed of at Rio Rancho Waste Management Landfill in Rio Rancho, New Mexico.

On the day of this inspection, grit and screenings at the headworks were removed from domestic sewage entering the package plant. Domestic sewage flowed into the wet well/EQ basin and lined overflow lagoon. Domestic sewage was being piped to a series of three evaporation/infiltration lagoons which had been constructed before the current package plant. The South Lagoon (Lagoon No. 2), which is approximately 4.8 acres, is unlined with partial concrete bank stabilization. South Lagoon is connected by a pipe to two (2) one-acre clay-lined lagoons (West and East Lagoons). There has been no disposal of sewage sludge from the plant or active lagoons to a landfill according to the Permittee's on-site representative.

The former North Lagoon (Lagoon No. 1), approximately 5 acres and bermed, was used in the 1980's and was dry by 1995 or 1996 according to the Permittee's on-site representative. The Permittee's on-site representative stated that grit and screenings were collected and disposed in the former North Lagoon. The Permittee's on-site representative stated that sewage was sent to the former North Lagoon the week before the day of the inspection until the day before this inspection (approximately 7 days). The previous use of the former North Lagoon for domestic sewage was approximately 4 years ago according to the Permittee's on-site representative. A septic odor from the uncovered domestic sewage was noted at the North Lagoon area.

An approximately 10,000 gallon overflow of the smaller lagoons was found on August 19, 2010. The duration of the overflow was unknown. Valves to the ponds were closed approximately 1 hour after the overflow was found. Corrective action had been taken to repair the lagoon berm and the flow rate from the Southern Lagoon to the smaller lagoons had been reduced according to the Permittee's on-site representative. On the day of this inspection, it was noted that the vegetation around the lagoons was low allowing inspection of the lagoon berm integrity. The level in the West Lagoon was low and the East Lagoon was dry. No overflow or erosion of the berms was observed on the day of this inspection.

### **Section B - Recordkeeping and Reporting Evaluation – Overall Rating of “M = Marginal”**

#### **Permit Requirements** for Reporting

Part I.C.6 (Monitoring and Reporting, No Discharge Reporting) of the permit states:

*If there is no discharge event at this outfall during the sampling month, place an "X" in the NO DISCHARGE box located in the upper right corner of the preprinted Discharge Monitoring Report.*

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

*Monitoring results must be reported on Discharge Monitoring Report (DMR)... Duplicate copies of DMR's and all other reports shall be submitted to the appropriate State agency....*

#### **Findings** for Reporting

NMED SWQB files do not contain a copy of the March 2011 “No Discharge” DMRs. Records indicate that these DMRs were not received by NMED SWQB. Based on a review of the Permittee's records, it was not documented that the required report was submitted to USEPA.

### **Section C - Operations and Maintenance – Overall Rating of “U = Unsatisfactory”**

#### **Permit Requirements** for Operations and Maintenance

Part III.B.1 (Standard Conditions, Need to Halt or Reduce Not a Defense) of the permit states:

*The permittee is responsible for maintaining adequate safeguards to prevent the discharge of untreated or inadequately treated wastes during electrical power failure either by means of alternate power sources, standby generators or retention of inadequately treated effluent.*

Part III.B.3 (Standard Conditions, Proper Operation and Maintenance) 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 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 backup 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.*

Part III.B.6 (Standard Conditions, Removed Substances) of the permit states:

*Unless otherwise authorized, solids, sewage sludges, filter backwash, or other pollutants removed in the course of treatment or wastewater control shall be disposed of in a manner such as to prevent any pollutant from such materials from entering navigable waters.*

Part III.B.7 (Standard Conditions, Percent Removal) of the permit states:

*For publicly owned treatment works, the 30-day average (or Monthly Average) percent removal for Biochemical Oxygen Demand and Total Suspended Solids shall not be less than 85 percent unless otherwise authorized by the permitting authority in accordance with 40 CFR 133.103.*

### **Findings** for Operation and Maintenance

Additional staffing appears needed to get the plant running and continue operation, maintenance and testing requirements. The following is a summary of the remaining operation and maintenance issues for the plant:

- No standby power or other equivalent was provided. Plant did not have a functional generator or other electrical backup system. Also, the Transient Voltage Surge Suppressor (TVSS) to shut down the pumps and motors when there is no power was not working according to the Permittee's on-site representative.
- An adequate alarm system for power or equipment failures was not available. The Supervisory Control and Data Acquisition (SCADA)/PLC was not programmed to restart the system.
- Automatic bar screen controls were not operational. Influent backs up into the Parshall flume according to the Permittee's on-site representative.

Notes: Staff must be on site to activate the bar screen and conduct cleaning which occurred twice a day according to the Permittee's on-site representative. Grit and screenings removal is important because it can interfere with treatment processes or cause undue mechanical wear and increased maintenance on wastewater treatment equipment.

Repairs to make the bar screen work automatically or additional cleaning may prevent or help reduce back up into the influent flume affecting accurate influent flow measurement by the meter. Accurate influent flow measurement is important in process control monitoring for the plant.

- Sewage level in the emergency PVC-lined overflow lagoon appeared high. Screenings not captured by the bar screen was observed around the outside of the lagoon. Screenings around the emergency overflow lagoon needs to be cleaned up and properly disposed.
- A schedule for putting the aeration basin back online was not provided. Upgrades to the Aerotor chain and drive unit in the aeration basin had finished the evening before this inspection according to the Permittee's on-site representative.
- Secondary clarifier had not been cleaned to put the plant back into operation.
- Status of the digester was unknown since it had not run since the plant was taken off-line and Hurricane mixer fixed.
- Status of UV system (e.g., bulbs, programming controls) was unknown since it had not been run after the initial test. The UV system and bulb intensity alarms would be programmed to the SCADA system.
- No backup disinfection system exists when the UV channel needs maintenance or cleaning.
- If a tie in to the outfall is completed, then effluent flow measurement equipment would need to be installed (see Section E of the checklist in this report and flow measurement requirements in Part III,C.5.b and C.6 of the permit).
- If the effluent automatic sampler is to be used, then the equipment would need to be connected to the effluent line.
- Status of the sludge line from the digester and belt press was unknown. The belt press was started in March of 2009, but has not been used since. The Permittee's on-site representative suspected that the sludge line may be plugged.
- Grit and screening disposed at the North Lagoon area are not subject to 40 CFR Section 503 Standards for the Use or Disposal of Sewage Sludge regulations, but the Permittee should contact the NMED Solid Waste Bureau to determine proper disposal requirements.

Also, the following has not been written or maintained:

- No updated plant records of schedules to put the treatment units into and continue operation, dates of equipment maintenance and repair.
- No spare parts and supplies inventory.
- No written standard operating procedures and schedules for the package plant, UV units, belt press, or sludge handling. Written operational and maintenance plan for the lagoons and a summary of operational plan daily testing or checks for the wastewater treatment plant had been submitted with the NMED GWQB application. The summary operational plan daily testing did not include influent or process control testing for BOD to determine percent removal.

- No written procedures for emergency treatment control.
- No written sample collection and analytical quality control procedures (see Section D and F of the checklist in this report and Part III.B.3 of the permit).

## **Section H - Sludge Disposal – Overall Rating of “U = Unsatisfactory”**

### **Permit Requirements** for Sludge Disposal

General requirements, management practices, and testing requirements including pathogen control and vector attraction reduction requirements are in Part IV Element 2, Section I, Requirements Applying to All Sewage Sludge Surface Disposal (starting on Page 11 of Part IV) of the permit. **Excerpts** from this section of the permit include:

*The permittee shall handle and dispose of sewage sludge in accordance with Section 405 of the Clean Water Act and all other applicable Federal regulations to protect public health and the environment from any reasonably anticipated adverse effects due to any toxic pollutants which may be present.*

*The permittee shall give prior notice to EPA (Chief, Permits Branch, Water Management Division, Mail Code 6W-P, EPA Region 6, 1445 Ross Avenue, Dallas, Texas 75202) of any planned changes in the sewage sludge disposal practice, in accordance with 40 CFR Part 122.41(l)(1)(iii). These changes may justify the application of permit conditions that are different from or absent in the existing permit. Change in the sludge use or disposal practice may be cause for modification of the permit in accordance with 40 CFR Part 122.62(a)(1).*

*Placement of sewage sludge shall not contaminate an aquifer. This shall be demonstrated through one of the following: (a) Results of a ground-water monitoring program developed by a qualified ground-water scientist. (b) A certification by a qualified ground-water scientist may be used to demonstrate that sewage sludge placed on an active sewage sludge unit does not contaminate an aquifer.*

*All sewage sludge that is disposed of in a surface disposal site shall be treated by either the Class A or Class B pathogen requirements unless sewage sludge is placed on an active surface disposal site, and is covered with soil or other material at the end of each operating day.*

*All sewage sludge that is disposed of in a surface disposal site shall be treated by one of the following alternatives 1 through 11 for Vector Attraction Reduction.*

Pollutant limits and notification requirements are in Part IV Element 2, Section II (Requirements Specific To Surface Disposal Sites Without A Liner And Leachate Collection System) of the permit (starting on Page 15 of Part IV). Record keeping requirements from Part IV Element 2, Section II.4 of the Permit states:

*The permittee shall develop the following information and shall retain the information for five years. The sludge documents will be retained on site at the same location as other NPDES records. a. The distance of the surface disposal site from the property line and the concentration (mg/Kg) in the sludge of each pollutant listed above in Table 5, as well as the applicable pollutant concentration criteria listed in Table 5. b. A certification statement that all applicable requirements (specifically listed) have been met, and that the permittee understands that there are significant penalties for false certification including fine and imprisonment. See 503.27(a)(1)(ii) or 503.27(a)(2)(ii) as applicable to the permittees sludge disposal activities. c. A description of how either the Class A or Class B*

*pathogen reduction requirements are met, or whether sewage sludge placed on a surface disposal site is covered with soil or other material at the end of each operating day. d. A description of how the vector attraction reduction requirements are met. e. Results of a groundwater monitoring program developed by a qualified ground-water scientist, or a certification by a qualified groundwater scientist may be used to demonstrate that sewage sludge placed on an active sewage sludge unit does not contaminate an aquifer. A qualified groundwater scientist is an individual with a baccalaureate or post graduate degree in the natural sciences or engineering who has sufficient training and experience in groundwater hydrology and related fields, as may be demonstrated by State registration, professional certification or completion of accredited university programs, to make sound professional judgements regarding groundwater monitoring, pollutant fate and transport, and corrective action.*

**Findings** for Sludge Disposal

The Permittee did not give prior notice to USEPA of any planned changes in the sewage sludge disposal practice. Overflow of domestic sewage at the former North Lagoon area is dewatered by infiltration/evaporation. Storage of sewage sludge for two years or less is not subject to 40 CFR 503. But, the disposal of sewage sludge on land in the former North Lagoon area that remains for more than two years is subject to 40 CFR 503 regulations and Part IV of the permit.

Sludge records for the dewatered sewage sludge disposed on land in the North Lagoon area approximately four years ago were not maintained as required by 40 CFR 503. There was no documentation that all sewage sludge that is disposed in a surface disposal site was treated by either the Class A or Class B pathogen requirements or covered with soil or other material at the end of each operating day. There was no documentation that demonstrated that the placement of sewage sludge approximately four years ago shall not contaminate an aquifer. There was no documentation that sewage sludge disposed on land in the North lagoon area approximately four years ago was treated by one of the Vector Attraction Reduction alternatives.