



SUSANA MARTINEZ
Governor
JOHN A. SANCHEZ
Lt. Governor

**NEW MEXICO
ENVIRONMENT DEPARTMENT**

Harold Runnels Building
1190 South St. Francis Drive (87505)
P.O. Box 5469, Santa Fe, NM 87502-5469
Phone (505) 827-0187 Fax (505) 827-0160
www.env.nm.gov



RYAN FLYNN
Cabinet Secretary
BUTCH TONGATE
Deputy Secretary

Certified Mail - Return Receipt Requested

September 4, 2015

Mr. Tim Dodge
City Manager
City of Santa Rosa
Post Office Box 429
244 South 4th Street
Santa Rosa, NM 88435

RE: Minor Municipal, SIC 4952, NPDES Compliance Evaluation Inspection, Santa Rosa
Wastewater Treatment Plant (WWTP), NPDES Permit No. NM0024988, July 23, 2015

Dear Mr. Dodge:

Enclosed please find a copy of the report and check list for the referenced inspection that the New Mexico Environment Department (NMED) conducted at your facility on behalf of the U.S. Environmental Protection Agency (USEPA). This inspection report will be sent to the USEPA in Dallas for their review. These inspections are used by USEPA to determine compliance with the National Pollutant Discharge Elimination System (NPDES) permitting program in accordance with requirements of the federal Clean Water Act.

You are encouraged to review the inspection report, required to correct any problems noted during the inspection, and advised to modify your operational and/or administrative procedures, as appropriate. If you have comments on or concerns with the basis for the findings in the NMED inspection report, please contact us (see the address below) in writing within 30 days from the date of this letter. Further, you are encouraged to notify in writing both the USEPA and NMED regarding modifications and compliance schedules at the addresses below:

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

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

If you have any questions about this inspection report, please contact Barbara Cooney at (505) 827-0212 or at barbara.cooney@state.nm.us.

Sincerely,

/S/ Bruce J. Yurdin

Bruce J. Yurdin

Program Manager

Point Source Regulation Section

Surface Water Quality Bureau

cc: Rashida Bowlin, USEPA (6EN-AS) by e-mail
Carol Peters-Wagnon, USEPA (6EN-WM) by e-mail
Raquel Douglas, USEPA (6EN-WM) by e-mail
Gladys Gooden-Jackson, USEPA (6EN) by e-mail
Tung Nguyen, USEPA (6WQ-PP)
NMED District I, by e-mail



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 2 4 9 8 8 11 12 1 5 0 7 2 3 17 18 C 19 S 20 1					
Remarks					
M I N O R M U N I C I P A L S A N T A R O S A					
Inspection Work Days	Facility Evaluation Rating	BI	QA	Reserved	
67 1 69	70 3	71 N 72 N 73	74 75	M I N O R 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) SANTA ROSA WWTP – 1-40 East to Santa Rosa, right on NM 91, Turn Right at James Wallace Power Dam Park, Follow road to facility entrance. Gated Entrance Locked. Call Operators to Open. Guadalupe County, New Mexico	Entry Time /Date 11:55 a.m. / July 23, 2015	Permit Effective Date September 1, 2011
	Exit Time/Date 4:30 p.m. / July 23, 2015	Permit Expiration Date August 31, 2016
Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s) Mark Micelli, Wastewater Superintendent, (575) 799-8888 (cell) Onofre Cordova, Operator Eric Aragon, Operator Tim Dodge, City Manager (575) 472-3404	Other Facility Data SIC 4952 N 34°55.559' W -104°40.937' (at outfall)	
Name, Address of Responsible Official/Title/Phone and Fax Number Mr. Tim Dodge, City Manager (575) 472-3404 City of Santa Rosa PO Box 429 Santa Rosa, NM 88435	Contacted Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

Section C: Areas Evaluated During Inspection

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

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

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

See the Further Explanation Section of the report for details.

Name(s) and Signature(s) of Inspector(s) /S/ Barbara Cooney	Agency/Office/Telephone/Fax NMED/SWQB 505-827-0187 / 505-827-0160	Date 9/3/2015
Signature of Management QA Reviewer /S/ Bruce Yurdin	Agency/Office/Phone and Fax Numbers NMED/SWQB 505-827-0187 / 505-827-0160	Date 9/4/2015

SECTION A - PERMIT VERIFICATION

PERMIT SATISFACTORILY ADDRESSES OBSERVATIONS

 S M U NA (FURTHER EXPLANATION ATTACHED NO)

DETAILS: New City Manager, Mr. Tim Dodge

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:

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.

 S M U NA (FURTHER EXPLANATION ATTACHED YES)

DETAILS:

Solids Wasting is below optimal level, 10' Sludge blanket in secondary clarifiers / UV lights had algae growth and debris in trough.

1. TREATMENT UNITS PROPERLY OPERATED.

 S M U NA

2. TREATMENT UNITS PROPERLY MAINTAINED.

 S M U NA

3. STANDBY POWER OR OTHER EQUIVALENT PROVIDED.

 S M U NA

4. ADEQUATE ALARM SYSTEM FOR POWER OR EQUIPMENT FAILURES AVAILABLE.

 S M U NA

5. ALL NEEDED TREATMENT UNITS IN SERVICE.

 S M U NA

6. ADEQUATE NUMBER OF QUALIFIED OPERATORS PROVIDED.

 S M U NA

7. SPARE PARTS AND SUPPLIES INVENTORY MAINTAINED.

 S M U NA

8. OPERATION AND MAINTENANCE MANUAL AVAILABLE.

 Y N NA

STANDARD OPERATING PROCEDURES AND SCHEDULES ESTABLISHED.

 Y N NA

PROCEDURES FOR EMERGENCY TREATMENT CONTROL ESTABLISHED. There is an emergency call out system as part of the facility SCADA.

 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?
 IF SO, HAS THE REGULATORY AGENCY BEEN NOTIFIED?
 HAS CORRECTIVE ACTION BEEN TAKEN TO PREVENT ADDITIONAL BYPASSES/OVERFLOWS?

Y N NA
 Y N NA
 Y N NA

10. HAVE ANY HYDRAULIC OVERLOADS OCCURRED AT THE TREATMENT PLANT?
 IF SO, DID PERMIT VIOLATIONS OCCUR AS A RESULT?

Y N NA
 Y N NA

SECTION D - SELF-MONITORING

PERMITTEE SELF-MONITORING MEETS PERMIT REQUIREMENTS.
 DETAILS:

S M U NA (FURTHER EXPLANATION ATTACHED YES.)

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.
 DETAILS:

S M U NA (FURTHER EXPLANATION ATTACHED YES.)

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

Y N NA

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. (DATE OF LAST CALIBRATION None)
 RECORDS MAINTAINED OF CALIBRATION PROCEDURES.
 CALIBRATION CHECKS DONE TO ASSURE CONTINUED COMPLIANCE.

Y N NA

Y N NA

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.
 DETAILS:

S M U NA (FURTHER EXPLANATION ATTACHED YES.)

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	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA	
3. SATISFACTORY CALIBRATION AND MAINTENANCE OF INSTRUMENTS AND EQUIPMENT.	<input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA	
4. QUALITY CONTROL PROCEDURES ADEQUATE.	<input type="checkbox"/> S <input checked="" type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA	
5. DUPLICATE SAMPLES ARE ANALYZED. <u>10</u> % OF THE TIME.	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N <input type="checkbox"/> NA	
6. SPIKED SAMPLES ARE ANALYZED. <u>10</u> % OF THE TIME.	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N <input type="checkbox"/> NA	
7. COMMERCIAL LABORATORY USED.	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA	
LAB NAME	Tucumcari WWTP Lab	American Interplex Laboratories
LAB ADDRESS	Post Office Box 1188 Tucumcari, NM 88401	800 Kanis Road Little Rock, Arkansas 72204
PARAMETERS PERFORMED	BOD, TSS, E. coli	WET

SECTION G - EFFLUENT/RECEIVING WATERS OBSERVATIONS. S M U NA (FURTHER EXPLANATION ATTACHED YES).

OUTFALL NO.	OIL SHEEN	GREASE	TURBIDITY	VISIBLE FOAM	FLOAT SOL.	COLOR	OTHER
001	NO	NO	NO	NO	NO	CLEAR	

RECEIVING WATER OBSERVATIONS: Effluent Exceedences for E.coli. Water appeared more turbid than it should be for a new WWTP – due to inadequate solids wasting from the secondary clarifier. Algae was growing on the UV lights. Grit and solids were visible in the UV channel.

SECTION H - SLUDGE DISPOSALSLUDGE DISPOSAL MEETS PERMIT REQUIREMENTS. DETAILS: S M U NA (FURTHER EXPLANATION ATTACHED YES).

- | | |
|---|---|
| 1. SLUDGE MANAGEMENT ADEQUATE TO MAINTAIN EFFLUENT QUALITY. | <input type="checkbox"/> S <input checked="" type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA |
| 2. SLUDGE RECORDS MAINTAINED AS REQUIRED BY 40 CFR 503. | <input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA |
| 3. FOR LAND APPLIED SLUDGE, TYPE OF LAND APPLIED TO: <u>Unknown</u> (e.g., FOREST, AGRICULTURAL, PUBLIC CONTACT SITE) | |

SECTION I - SAMPLING INSPECTION PROCEDURES (FURTHER EXPLANATION ATTACHED NO).

- | | |
|--|--|
| 1. SAMPLES OBTAINED THIS INSPECTION. | <input type="checkbox"/> Y <input checked="" type="checkbox"/> N <input type="checkbox"/> NA |
| 2. TYPE OF SAMPLE OBTAINED
GRAB _____ COMPOSITE SAMPLE _____ METHOD _____ FREQUENCY _____ | |
| 3. SAMPLES PRESERVED. | <input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA |
| 4. FLOW PROPORTIONED SAMPLES OBTAINED. | <input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA |
| 5. SAMPLE OBTAINED FROM FACILITY'S SAMPLING DEVICE. | <input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA |
| 6. SAMPLE REPRESENTATIVE OF VOLUME AND MATURE OF DISCHARGE. | <input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA |
| 7. SAMPLE SPLIT WITH PERMITTEE. | <input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA |
| 8. CHAIN-OF-CUSTODY PROCEDURES EMPLOYED. | <input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA |
| 9. SAMPLES COLLECTED IN ACCORDANCE WITH PERMIT. | <input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA |

Introduction

On July 23, 2015 a Compliance Evaluation Inspection (CEI) was conducted at the City of Santa Rosa Wastewater Treatment Plant (WWTP) by Barbara Cooney of the State of New Mexico Environment Department (NMED), Surface Water Quality Bureau (SWQB). The inspection was conducted by NMED for the US Environmental Protection Agency (USEPA), Region VI, under the National Pollutant Discharge Elimination System (NPDES) permit program, in accordance with the Federal Clean Water Act. These inspections are conducted under contract with the USEPA and are used by USEPA to evaluate compliance with the NPDES permit program. This inspection report is based on information supplied by the City of Santa Rosa representatives (the permittee), observations made by the NMED inspector, reports and records kept by the permittee and/or NMED.

The Santa Rosa WWTP is classified as a minor municipal discharger under the Federal Clean Water Act (CWA), section 402 NPDES permit program, and is assigned NPDES permit number NM0024988. The Standard Industrial Classification Code (SIC) is 4952. The facility is permitted for a design flow of 0.44 Million Gallons per Day (MGD). The discharge for the WWTP enters El Rito Creek a tributary to the Pecos River in Water Quality Segment 20.6.4.212 NMAC at Latitude 34° 55' 33.24' North, Longitude 104° 40' 55.2" West. The Designated Uses for this segment of the river are: irrigation, coldwater aquatic life, livestock watering, wildlife habitat and primary contact.

Inspection Details

The inspector arrived in Santa Rosa at 1155 hours called Mr. Mark Micelli, Wastewater Supervisor by phone and made arrangement to meet at the locked gate entrance to the WWTP. She met Mr. Micelli, Mr. Onofre Cordova, Operator, and Mr. Eric Aragon, Operator, showed her credentials and explained the purpose of the inspection. They accompanied the inspector on a tour of the treatment facility, the onsite laboratory and during a records review. An exit interview was conducted following the inspection at town hall with Mr. Tim Dodge, Mr. Micelli, Mr. Cordova and Mr. Aragon. Preliminary findings were discussed during the exit interview. The inspector left the Town Hall at 1630 hours.

Treatment Scheme

The treatment process is an oxidation ditch, extended air, activated sludge system. The collection system, including five lift stations, carries raw sewage to the facility. The service area includes a population of approximately 2, 800 persons. Contributing industries include: restaurants, hotels, a hospital, a carwash, gas stations, laundromats, and schools. The permitted design flow of the WWTP is 0.44 MGD. The actual plant design is 0.67MGD. The permitted flow is used to calculate effluent loading limits because of the State's Water Quality Standards for Antidegradation found in 20.6.4. 8 NMAC. The average daily flow fluctuates seasonally due to hotel occupancy.

Septage is not accepted at this facility.

Influent enters the automatic bar screen and grinder where large solids are removed. A second channel with a manual bar screen was not in use at the time of the inspection. The solids removed from the screen and grinders are disposed of at the City of Tucumcari landfill, after passing the paint filter test. Following the bar screens are three Flygt pumps triggered by float sensors that lift the sewage to the oxidation ditches. Parallel trains for the oxidation ditches are in place. Fine bubble diffusers at the bottom of the basins provide aeration. The cycles are: an aerated phase for 120 minutes and an anoxic phase for 120 minutes throughout the day and night. Mixers are located approximately five feet from the bottom of the 30 foot basins and run continuously

Following the 20 feet deep oxidation ditches are two secondary clarifiers, 18 feet deep. Solids are wasted from the bottom of the clarifier to the aerobic digester as Waste Activated Sludge (WAS) or Return Activated Sludge (RAS) is sent back to the head of the treatment plant. Operators stated that solids are

wasted for 30 minutes to 1 hour every day. The wasting is done manually by turning on and off the WAS and RAS pumps.

Decant from the secondary clarifier is sent to the ultraviolet disinfection system, consisting of dual channels run in parallel, with a single bank of 6 lights per channel. Following disinfection is a Parshall Flume with staff gauge and an ultrasonic sensor that records the totalized flow.

The treatment plant is monitored with a SCADA control system. An alarm call out system is in place with the Operators phone numbers programed in. The facility has a backup diesel generator for power that is exercised weekly.

The outfall at El Rito Creek is through an approximately 300 feet long enclosed pipe.

Solids

Solids are wasted from the clarifiers to an open air aerobic digester, then to the sludge drying beds. The three concrete drying beds have under drains and the water is sent back to the head of the plant. The solids from the old lagoon system for this facility have been dredged and placed in one drying bed. These dredged solids have a large amount of soil sediment and rocks. The permittee expects to achieve Class A sludge according to the 40CFR Part 503 regulations, and to dispose of it as compost and fertilizer on the city golf course. Solids are currently being held in the drying beds and final disposal has not occurred.

This facility is also regulated under the State of New Mexico, NMED Ground Water Quality Bureau (GWQB) Discharge Permit Number 665.

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.

Permit

Overall Rating For Permit Verification (Satisfactory)

Record Keeping and Reporting

Overall Rating For Record Keeping and Reporting (Satisfactory)

Findings For Recordkeeping and Reporting

Records for the month of May 2015 were reviewed as part of this inspection. The reviewed records appeared to be complete and reporting on Discharge Monitoring Reports (DMRs) was consistent with supporting documents.

Operations And Maintenance

Overall Rating For Operation and Maintenance (Unsatisfactory)

Permit Requirements For Operation And Maintenance

The permit requires in Part III. B.

3. Proper Operations and Maintenance

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 that which will minimize upsets and discharges of excessive pollutants and will achieve compliance with the condition 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

1. At the time of the inspection, only one of the oxidation ditches was in operation. The offline basin was under repair for mixers and blowers.

2. Secondary Clarifiers - Only one clarifer was online at the time of the inspection. The influent flow of approximately .340 MGD at the WWTP did not necessitate the second one to be in use. The basins are rotated quareately. The basin in use was heavily overloaded with solids. The sludge blanket should be no more than 2 to 3 feet deep in this size basin. However a test with the sludge judge showed a 10 foot blanket with a difuse layer of 2 to 3 feet above that. Some diffuse solids were observed being carried over the weirs to the Ultra Violet disinfection treatment unit and ultimately with the discharge to El Rito, Creek.

3. The UV treatment units had algae growth on the lights and the sides, A fine layer of solids were settling in the bottom of the channel. Operators said the channels and lights were cleaned weekly and the only reason they were not cleaned on this day, was because the inspector was taking them away from their normally scheduled tasks. It is advisable that these units be cleaned more frequently due to the ammount of interference to the light transmittance by the algae and solids. At the time of the inspection the light

transmittance was 58%. According to the design engineer, Mr. Ed Dubois the UV light should be functional with even as low as 55% depending on flow rate. However, the E. coli bacterial exceedences indicate that disinfection has not always been adequately achieved.

4. Inadequate Operational staff. The operational staff appeared to be overwhelmed with the volume of work necessary to maintain and operate an activated sludge WWTP in addition to the other duties required of them.

5. The blower for the aeration basins need to be maintained regularly, including being oiled, seals checked and belt tension checked. There were no maintenance records for these blowers. The area in the building where they are located is also quite hot and may need additional air conditioning to prevent over heating. These blowers are only a few years old, however there was a noticeable high pitched whine from one of the blowers indicating a need for servicing.

Self-Monitoring

Overall Rating For Self Monitoring (Satisfactory)

Flow Measurement

Overall Rating For Flow Measurement (Satisfactory)

Laboratory

Overall Rating For Laboratory (Satisfactory)

Permit Requirements For Laboratory

The perm requires in Part C. Monitoring and Records. 4. Records Content

Records of monitoring information shall include:

- a. The date, exact place, and time of sampling or measurements;
- b. The individual(s) who preformed the sampling or measurement;
- c. The date(s) and time(s) analyses were performed;
- d. The individual(s) who performed the analyses;
- e. The analytical technique or method used; and
- f. The results of such analyses.

The permit requires in Part C. Monitoring and Records. 5. Monitoring Procedures

- 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.
- 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.
- 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.

Findings For Laboratory

1. The onsite laboratory is used for pH, Total Residual Chlorine (TRC) when used, and Settleable Solids. Composite Samples are collected in an ISCO sampler. At the time of the inspection, operators were not able to demonstrate how to program the controls. The sensor indicated an internal temperature of 4 degrees Celcius. However there was no back up thermometer for verification. It is suggested an operational manual be available with the ISCO sampler for reference when setting the samples and

reading controls. It is also suggested a back up thermometer be placed inside the sampler to insure temperature control.

2. There were two effluent exceedences in the last six months for E.coli bacteria. As part of the inspection, consideration was given to the possibility of laboratory error as a cause for the effluent exceedences at the permittee's request. A review of laboratory procedures for the contract lab, the City of Tucumcari WWTP, did not find evidence that indicated the exceedences were a result of laboratory error. It is more likely that effluent exceedences were a result of excess solids overflowing the secondary clarifier, and inadequate cleaning of the UV disinfection system.

Effluent And Receiving Water

Overall Rating For Effluent And Receiving Water (Marginal)

EFFLUENT CHARACTERISTICS		DISCHARGE LIMITATIONS						MONITORING REQUIREMENTS	
		lbs/day, unless noted			mg/l, unless noted				
POLLUTANT	STORET CODE	30-DAY AVG	DAILY MAX	7-DAY AVG	30-DAY AVG	DAILY MAX	7-DAY AVG	MEASUREMENT FREQUENCY	SAMPLE TYPE
Flow	50050	Report MGD	Report MGD	Report MGD	***	***	***	Continuous	Totalizing Meter
Biological Oxygen Demand, 5-day	80082	87.6	N/A	131.4	30	N/A	45	Once/Week	6-Hour Composite
Biological Oxygen Demand, 5-day	TBD	≥ 85% (3)	---	---	---	---	---	Once/Week	Calculation (3)
Total Suspended Solids	00530	87.6	N/A	131.4	30	N/A	45	Once/Week	6-Hour Composite
Total Suspended Solids % removal	TBD	≥ 85% (3)	---	---	---	---	---	Once/Week	Calculation (3)
E. coli Bacteria	51040	---	---	---	126 (4)	410 (4)		Twice/Week	Grab
Total Residual Chlorine	50060	N/A	N/A	N/A	N/A	19 ug/l (5)	N/A	Twice/Week	Instantaneous Grab

Findings For Effluent And Receiving Water

- Two effluent exceedences for E. coli bacteria were reported in the last six months
 May 2015 – 1600cfu
 June 2015 – 3000cfu

Sludge Handling

Overall Rating For Solids Handling (Marginal)

Permit Requirements For Solids Handling

The permit requires in Part III.B.3. PROPER OPERATIONS AND MAINTENANCE:

- The permittee shall at all times properly operate and maintain all facilities and systems of the 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.

40CRF Part 503 Subpart A. General Provisions states:

(y) Store or storage of sewage sludge is the placement of sewage sludge on land on which the sewage sludge remains for two years or less. This does not include the placement of sewage sludge on land for treatment.

Findings For Sludge Handling

1. The solids from the old lagoon system for this facility have been dredged and placed in one drying bed. These dredged solids have a large amount of large debris and rocks. According to operators because of the various kinds of debris in these solids even after 3 years, they are still not able to meet the criteria for Class A solids disposal. Furthermore these solids are taking up space in one of the sludge drying beds, limiting the amount of future solids processing from the digester. It is suggested these lagoon solids be disposed of at a certified land fill that accepts this kind of waste.

2. The facility has not yet sent any solid to the golf course or parks for final disposal/composting. It is important for the permittee to establish and implement a disposal schedule to prevent more extensive back up of solids in the other treatment units.

NMED/SWQB
Official Photograph Log
Photo # 1

Photographer: B. Cooney

Date: July 23, 2015

Time: 13:07 Hours

City/County: Santa Rosa, Guadalupe

State: New Mexico

Location: Santa Rosa Wastewater Treatment Plant

Subject: Influent automatic bar screen with a grinder unit to remove large solids from entering the treatment works.



NMED/SWQB
Official Photograph Log
Photo # 2

Photographer: B. Cooney

Date: July 23, 2015

Time: 13:10 Hours

City/County: Santa Rosa, Guadalupe

State: New Mexico

Location: Santa Rosa Wastewater Treatment Plant

Subject: Lift station at head works of WWTP with 3 Flygt pumps, activated by floats that detect the height of the water level.



NMED/SWQB
Official Photograph Log
Photo # 3

Photographer: B. Cooney

Date: July 23, 2015

Time: 13:53 Hours

City/County: Santa Rosa, Guadalupe

State: New Mexico

Location: Santa Rosa Wastewater Treatment Plant

Subject: Ultra Violet (UV) disinfection system, two trains are run parallel. This photo is of one of the two trains. There were solids present in the basin. Solids should settle in the secondary clarifier and be wasted before reaching the UV system.



NMED/SWQB
Official Photograph Log
Photo # 4

Photographer: B. Cooney

Date: July 23, 2015

Time: 13:54 Hours

City/County: Santa Rosa, Guadalupe

State: New Mexico

Location: Santa Rosa Wastewater Treatment Plant

Subject: Another view of the Ultra Violet (UV) disinfection system, two trains are run parallel. This photo is of one of the two trains. There were solids present in the basin. Solids should settle in the secondary clarifier and be wasted before reaching the UV system.



NMED/SWQB
Official Photograph Log
Photo # 5

Photographer: B. Cooney

Date: July 23, 2015

Time: 13:58 Hours

City/County: Santa Rosa, Guadalupe

State: New Mexico

Location: Santa Rosa Wastewater Treatment Plant

Subject: Light transmittance in the Ultra Violet Disinfection Chamber is 58.5%. The water was slightly turbid in the chamber and at the discharge.



NMED/SWQB
Official Photograph Log
Photo # 6

Photographer: B. Cooney

Date: July 23, 2015

Time: 15:09 Hours

City/County: Santa Rosa, Guadalupe

State: New Mexico

Location: Santa Rosa Wastewater Treatment Plant

Subject: Flow Measurement at the Parshall Flume w/ Staff Gauge and Ultrasonic Flow Meter. The flow is free of turbulence and is a good representation of laminar flow.



NMED/SWQB
Official Photograph Log
Photo # 7

Photographer: B. Cooney

Date: July 23, 2015

Time: 15:03 Hours

City/County: Santa Rosa, Guadalupe

State: New Mexico

Location: Santa Rosa Wastewater Treatment Plant

Subject: WWTP outfall pipe to El Rito Creek. Effluent is free of floating solids.

