NEW MEXICO
ENVIRONMENT DEPARTMENT

Surface Water Quality Bureau

Harold Runnels Building, N2050
1190 South St. Francis Drive (87505)
P.O. Box 5469, Santa Fe, NM 87502-5469
Phone (505) 827-0187 Fax (505) 827-0160
www.nmenv.state.nm.us

SUSANA MARTINEZ
Governor

JOHN A. SANCHEZ
Lieutenant Governor

Secretary

BUTCH TONGATE
Deputy Secretary

JAMES H. DAVIS, Ph.D.
Director
Resource Protection Division

Certified Mail - Return Receipt Requested

July 31, 2012

Sue Padilla
Utilities Director
845 N. Motel Blvd.
Las Cruces, New Mexico 88007

Re: **Minor Municipal; SIC 4952; NPDES Compliance Evaluation; Salem Wastewater Treatment Plant; NM0030457; July 11, 2012**

Dear Mr. Padilla,

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.

Introduction, treatment scheme, and problems noted during this inspection are discussed in the Further Explanations section of the inspection report. The main problems were found in the Record Keeping & Reporting, and Operations & Maintenance area. 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)
Allied Bank Tower
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) 827-2575 or daniel.valenta@state.nm.us.

Sincerely,

/s/Daniel Valenta

Daniel Valenta
Environmental Scientist/Specialist
Surface Water Quality Bureau

Cc: Rashida Bowlin, USEPA (6EN-AS) by e-mail
Samuel Tates, USEPA (6EN-AS) by e-mail
Carol Peters, USEPA (6EN-WM) by e-mail
Diana McDonald, USEPA (6EN-WM) by e-mail
Larry Giglio, USEPA (6WQ-PP) by e-mail
Hannah Branning, USEPA (6EN-WC) 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

1	2	3	NPDES	11	12	yr/mo/day	17	18	Inspec. Type	19	Inspector	20	Fac Type
Transaction Code													
N	5	N	MN0030457			120711			C		S		1

Remarks: MINOR WWTP

67	69	70	71	72	73	74	75	80
Inspection Work Days		Facility Evaluation Rating	BI	QA	----------Reserved----------			
		4	N	N				

Section B: Facility Data

Name and Location of Facility Inspected *(For industrial users discharging to POTW, also include POTW name and NPDES permit number)*

Salem Wastewater Treatment Plant

From I-25, exit Garfield/Salem Exit, travel south on 187 to the town of Salem, south on Grand Ave/Roming Dr. before crossing the Rio Grande turn left onto dirt road, River Levee, WWTP can be see beside the levee.

Dona Ana County

Entry Time /Date: **1335/July 11, 2012**

Exit Time/Date: **1600/July 11, 2012**

Permit Effective Date: **September 1, 2008**

Permit Expiration Date: **August 31, 2013**

Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s)

Dale Antresin/Operator/575-649-2095/575-231-2608
Kurt Moffatt, Operations Manager, 575-635-5634, fax 575-233-2195

Name, Address of Responsible Official/Title/Phone and Fax Number

Sue Padilla/845 N. Motel Blvd., Las Cruces, New Mexico 88007/ Utilities Director/575-647-7142 fax 575-525-6199

Contacted: Yes [ ] No [X]

Other Facility Data

LAT 32° 41' 37.19" N

LONG 107° 12' 32.73" W

SIC 4952

Section C: Areas Evaluated During Inspection

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

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

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

1. **SEE REPORT AND FURTHER EXPLANATIONS.**

Name(s) and Signature(s) of Inspector(s)	Agency/Office/Telephone/Fax	Date
DANIEL VALENTA */s/Daniel Valenta*	NMED/SWQB 505-827-2575	7/31/2012
Signature of Management QA Reviewer	**Agency/Office/Phone and Fax Numbers**	**Date**
RICHARD E. POWELL */s/Richard Powell*	NMED/SWQB 505-827-2798	7/31/2012

Salem Wastewater Treatment Facility	PERMIT NO. NM0030457

SECTION A - PERMIT VERIFICATION

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

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 No.)*
DETAILS:

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 ☐N
No backup power on site, portable generators are available if needed

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. **Operator level 4 & 1** ☒S ☐ M ☐ U ☐ NA

7. SPARE PARTS AND SUPPLIES INVENTORY MAINTAINED. ☒ S ☐ M ☐ U ☐ NA
Some spare parts on site but most at Central warehouse.

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

Salem Wastewater Treatment Facility	PERMIT NO. NM0030457

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 No)*
DETAILS:

1. PRIMARY FLOW MEASUREMENT DEVICE PROPERLY INSTALLED AND MAINTAINED. ☒ Y ☐ N ☐ NA
TYPE OF DEVICE **4" Parshall Flume & ISCO Ultrasonic flow meter**

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___)* **Ultrasonic flow meter checked at each sampling event.** ☒ 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
During high discharge rates standing waves are present.

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:

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

Salem Wastewater Treatment Facility	PERMIT NO. NM0030457

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. **Only pH reading taken on site.** ☒ S ☐ M ☐ U ☐ NA

4. QUALITY CONTROL PROCEDURES ADEQUATE. ☒S ☐M ☐ U ☐ NA

5. DUPLICATE SAMPLES ARE ANALYZED. __10__ % 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 ____ **WATER TECHNOLOGY ASSOCIATES**

LAB ADDRESS__ **3400 S. Espina, Las Cruces, N.M. 88003**

PARAMETERS PERFORMED __**TSS, E-Coli, BOD, pH, 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**	**NO**	**Clear**	**NO**	**NO**	**NO**	**No Smell**

RECEIVING WATER OBSERVATIONS:

SECTION H - SLUDGE DISPOSAL

SLUDGE DISPOSAL MEETS PERMIT REQUIREMENTS. ☒S ☐ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED No).*

DETAILS: **Sludge taken to Las Cruces landfill.**

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: _____ (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

Compliance Evaluation Inspection
Salem Wastewater Treatment Facility
NPDES Permit No. NM0030457
July 11, 2012

Introduction

On July 11, 2012 a Compliance Evaluation Inspection (CEI) was conducted at the Salem Wastewater Treatment Plant (WWTP) located near Salem, New Mexico by Mr. Daniel Valenta of the State of New Mexico Environment Department (NMED). This facility 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 number NM0030457. The facility has a design capacity of 0.20 million gallons per day (MGD).

The Salem WWTP discharges into Rio Grande in Segment 20.6.4.101 NMAC of the Lower Rio Grande River Basin NMAC (*State of New Mexico Standards for Interstate and Intrastate Surface Water*). Segment 20.6.4.101 has an USEPA-approved Total Maximum Daily Load (TMDL) established for E-coli bacteria. Designated uses of this segment are irrigation, marginal aquatic life, livestock watering, wildlife habitat, and secondary contact.

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, on-site observation by NMED personnel, and verbal information provided by the permittee's representative. Findings of the inspection are detailed on the attached EPA form 3560-3 and in the narrative Further Explanations section of the report.

The inspector arrived at the Salem WWTP at 1335 hours on July 11, 2012. The Operations Manager, Mr. Kurt Moffatt, was contacted by phone but was not available on the day of the inspection. Operator Dale Antresinin was contacted, she was able to meet the Inspector at the plant. No documents are kept at the facility for review. Lab results and bench sheets were requested and supplied from the Water Utilities Department in Las Cruces the following week.

Treatment Plant Decription

Raw sewage from approximately 250 homes is collected in a newly rebuilt lift station located northeast of the plant and pumped to the entrance works. In an emergency situation such as power failure, influent can be pumped directly to the SRB basins with the aid of portable generators and pumps.

The facility consists of two Sequencing Batch Reactors (SBR's) designed to treat an average of 200,000 gpd wastewater collected from the Communities of Salem and Ogaz. At the entrance works, raw sewage passes through a manual bar screen, manual grit chamber, and Parshall flume. Depending on the SBR cycling times, influent then enters either of the two Aqua Aerobics reactors. Both reactors are equipped with a bank of air diffusers on the west side and a mixer on the east side. During the fill cycle for one reactor, the other reactor is either in a treatment cycle or decant mode.

Compliance Evaluation Inspection
Salem Wastewater Treatment Facility
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The facility utilizes the following phase times within the SBR basins: anoxic fill with mixing 30 minutes; aerated fill 150 minutes; aeration 30 minutes; settling 120 minutes; and sludge wasting, decant and idle 30 minutes. These periods have been adjusted over time to enhance plant efficiency. Four, six-hour cycles are run in each SBR basin per day. The decanted flow passes to the equalization basin, which has been partially covered to prevent algal build-up and then flows to the Infilco Degremont, Inc. UV disinfection unit. This unit contains 20 lamps. Effluent flow is measured by a 4" Parshall flume in conjunction with an ISCO Model 4210 ultrasonic flow meter with a totalizer. The effluent is then discharged to the Rio Grande. Sludge is wasted four times a day at a rate of 99 gallons per minute. SBR #1 wastes for 0.5 minutes per cycle and SBR #2 wastes for 0.6 minutes per cycle. Waste activated sludge is pumped to the Aqua Aerobics aerobic digester for dewatering and thickening. The thickened sludge is pumped to one of four concrete paved sludge drying beds as necessary (usually once per month). Supernatant from sludge bed bottoms drain back to the reactors. Solids removed from the drying beds are shipped to Las Cruces landfill for final disposal.

The plant operators visit the facility everyday, for at least three to four hours, including weekends. The staff performs general maintenance and checks around the facility. During the remaining hours, the facility is monitored on an "on-call" basis. The facility operates 24 hours a day, regularly alternating each batch reactor on predetermined schedule.

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Further Explanations

Section B-Recordkeeping & Reporting Evaluation-Overall Rating of "Marginal"

1. Permit Requirements – for Recordkeeping and Reporting Evaluation

Part I.A. of the permit has a 30 Day Average (mg/l), 7 Day Average (mg/l), and a 30-Day Average loading (lbs/day) requirement for BOD and TSS.

Total mass (lbs/day) = (flow (MGD)) x (8.34) x (concentration (mg/l))

A review of analytical results for January, February, and March of 2011 was conducted after the inspection using records maintained by the permittee for outfall 001. No permit limits were exceeded during the reviewed time period.

Reporting Period: From January 1, 2011 to March 30, 2011

(Parameters Checked: BOD5, TSS, E-coli)

BOD5			
	30 Day Average mg/l	*7-Day Average mg/l*	*30-Day Average lbs/day*
Reported January Values	2.25	2.4	**0.62**
Calculated Values	2.25	2.4	0.56
Reported February Values	4.23	5.67	**1.09**
Calculated Values	4.23	5.67	0.96
Reported March Value	1.20	1.40	0.32
Calculated Value	1.20	1.40	0.32

The 30-Day and 7-Day Average (mg/day) values for the months of January, February, and March 2011 appear to be calculated correctly. The 30 Day Average loading values for the Months of January and February appear to be different than the calculated value.

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BOD5 30-Day Average mg/l

January = 2.10 mg/l + 2.39 mg/l = 4.49/2 = 2.25 mg/l
February = 5.67 mg/l + 2.76 mg/l = 8.43/2 = 4.23 mg/l
March = 1.00 mg/l + 1.40 mg/l = 2.40/2 = 1.2 mg/l

BOD5 30 Day Average lbs/day

January 12 – (0.033 MGD) (2.10 mg/l) (8.34 lbs/gal) = 0.58 lbs/day
January 19– (0.027 MGD) (2.40 mg/l) (8.34 lbs/gal) = 0.54 lbs/day

0.58 lbs/day + 0.54 lbs/day = 1.12/2 = 0.56 lbs/day

February 9– (0.029 MGD) (5.67 mg/l) (8.34 lbs/gal) = 1.37 lbs/day
February 23–(0.024 MGD) (2.76 mg/l) (8.34 lbs/gal) = 0.55 lbs/day

1.37 lbs/day + 0.55 lbs/day = 1.92/2 = 0.96 lbs/day

March 9– (0.035 MGD) (1.00 mg/l) (8.34 lbs/gal) = 0.29 lbs/day
March 23–(0.030 MGD) (1.40 mg/l) (8.34 lbs/gal) = 0.35 lbs/day

0.29 lbs/day + 0.35 lbs/day = 0.64/2 = 0.32 lbs/day

TSS			
	30 Day Average mg/l	*7-Day Average mg/l*	*30-Day Average lbs/day*
Reported January Values	10.87	11.90	**2.99**
Calculated Values	10.87	11.90	2.91
Reported February Values	8.68	11.90	**MISSING**
Calculated Values	8.68	11.90	1.98
Reported March Value	8.81	10.34	2.35
Calculated Value	8.81	10.34	2.35

Compliance Evaluation Inspection
Salem Wastewater Treatment Facility
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TSS 30-Day Average mg/l

January = 11.90 mg/l + 9.84 mg/l = 21.74/2 = 10.87 mg/l
February = 11.90 mg/l + 5.45 mg/l = 17.35/2 = 8.68 mg/l
March = 7.27 mg/l + 10.34 mg/l = 17.61/2 = 8.81 mg/l

TSS 30-Day Average lbs/day

January 12 – (0.033 MGD) (11.90 mg/l) (8.34 lbs/gal) = 3.28 lbs/day
January 19– (0.027 MGD) (11.27 mg/l) (8.34 lbs/gal) = 2.54 lbs/day

3.28 lbs/day + 2.54 lbs/day = 5.82/2 = 2.91 lbs/day

February 9– (0.029 MGD) (11.90 mg/l) (8.34 lbs/gal) = 2.88 lbs/day
February 23–(0.024 MGD) (5.45 mg/l) (8.34 lbs/gal) = 1.09 lbs/day

2.88 lbs/day + 1.09 lbs/day = 3.97/2 = 1.98 lbs/day

March 9– (0.035 MGD) (7.27 mg/l) (8.34 lbs/gal) = 2.12 lbs/day
March 23–(0.030 MGD) (10.34 mg/l) (8.34 lbs/gal) = 2.59 lbs/day

2.12 lbs/day + 2.59 lbs/day = 4.71/2 = 2.35 lbs/day

The 30-day average loading values for the month of January appear to be calculated incorrectly. This may be due to a rounding error. The 30-day average loading values for the month of February was missing from the submitted DMR.

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E-coli		
	30 Day Average cfu/ml	*Daily Max cfu/ml*
Reported January Values	12.33	38
Calculated Values	12.33	38
Reported February Values	7.07	25.0
Calculated Values	7.07	25.0
Reported March Value	7.62	58.0
Calculated Value	7.62	58.0

E-coli values have been reported correctly for the months reviewed.

2. Per Part III, C, 5, b, MONITORING PROCEDURES, "*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 pH calibration standard 7 was out of date and needs to be replaced. The facility has no set procedure in place for calibrating the pH meter. The facility should establish and implement one of the EPA accepted procedures for pH calibration such as 4500-H+B. **This is a repeat finding of the August 2010 inspection.**

Section D – Self-Monitoring – Overall rating of "Unsatisfactory"

The permit requires, in Part III.C.2, Proper Operation and Maintenance:

> *REPRESENTATIVE SAMPLING: Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.*

The SOP now being implemented is to clean the UV bulbs before a sample is taken. After cleaning the UV would be at their peak disinfection ability. Cleaning before sampling may invalidate the sample as being "representative" of the discharge. **This is a repeat finding of the August 2010 inspection.**

Salem NM0030457

Date	BOD	BOD	BOD	pH	pH	TSS	TSS	TSS	Q	Q	TRC	E coli	E-Coli
	30-Day Ave	30 Day Ave	7 Day Ave			30-Ave	30-Day Ave	7 Day Ave	30 Day Ave	Daily Max	Inst Max	30-Day Ave	Daily Max
	50 lbs/day	30 mg/l	45 mg/l	6.60	9.00	50 lbs/day	30 mg/l	45 mg/l	MGD	MGD	11 ug/l	126 cfu/ml	410 cfu/ml
3/1/12	0.61	2.62	3.47	7.20	7.26	1.14	4.88	5.56	0.028	0.040	n/a	2.8	4.0
2/1/12	0.59	2.43	3.06	7.18	7.20	0.90	3.74	4.29	0.029	0.039	n/a	2.5	6.0
1/1/12	1.00	3.62	4.91	7.52	7.80	1.55	5.63	9.09	0.033	0.052	n/a	3.2	10.0
12/1/11	0.76	3.05	3.66	7.06	7.22	1.09	4.35	5.66	0.030	0.040	n/a	11.0	12.0
11/1/11	0.85	3.41	3.67	7.21	7.27	1.53	6.10	7.79	0.030	0.033	n/a	1.4	2.0
10/1/11	0.93	3.38	4.35	7.18	7.31	1.50	5.44	5.88	0.033	0.047	n/a	4.5	20.0
9/1/11	0.76	2.59	3.59	7.26	7.27	1.09	3.75	3.86	0.035	0.049	n/a	4.9	6.0
8/1/11	0.46	1.49	1.80	7.32	7.34	0.55	1.77	2.00	0.037	0.052	n/a	1.4	2.0
7/1/11	0.78	2.47	3.94	7.21	7.26	1.18	3.72	5.71	0.038	0.047	n/a	1.0	1.0
6/1/11	0.31	1.14	1.27	7.14	7.22	1.05	3.82	6.02	0.033	0.039	n/a	3.5	12.0
5/1/11	0.62	2.34	2.52	7.14	7.32	0.45	1.69	1.92	0.032	0.037	n/a	18.7	58.0
4/1/11	0.50	1.86	2.62	7.39	7.54	1.40	5.23	6.10	0.032	0.041	n/a	3.7	14.0
3/1/11	0.32	1.20	1.40	7.39	7.52	2.35	8.81	10.34	0.032	0.040	n/a	7.6	58.0
2/1/11	1.09	4.23	5.67	7.51	7.62	blank	8.68	11.90	0.031	0.042	n/a	7.1	25.0
1/1/11	0.62	2.25	2.40	6.72	6.97	2.99	10.87	11.90	0.033	0.044	n/a	12.3	38.0
12/1/10	1.88	8.07	10.32	6.70	7.21	2.00	8.57	9.72	0.028	0.034	n/a	3.2	10.0
11/1/10	1.27	4.75	6.60	7.10	7.17	2.97	11.11	13.33	0.032	0.041	n/a	4.0	4.0
10/1/10	0.64	2.34	2.87	7.23	7.97	1.97	7.14	8.51	0.033	0.043	n/a	5.7	8.0
9/1/10	1.21	4.15	5.54	7.29	7.87	0.79	2.72	2.94	0.035	0.045	n/a	2.0	4.0
8/1/10	0.91	3.02	3.04	7.70	7.75	0.80	2.65	3.48	0.036	0.050	n/a	1.0	1.0
7/1/10	1.72	6.07	6.48	7.78	7.88	2.19	7.74	11.48	0.034	0.048	n/a	1.0	1.0
6/1/10	0.65	2.28	3.56	7.67	7.97	1.93	6.79	7.81	0.034	0.043	n/a	blank	blank
5/1/10	0.68	2.82	3.83	7.81	7.87	1.03	4.25	5.17	0.029	0.044	n/a	1.0	1.0
4/1/10	0.75	3.23	4.41	7.84	8.01	1.28	5.50	6.00	0.028	0.038	n/a	3.2	10.0
3/1/10	1.41	4.58	6.06	7.59	7.92	1.72	5.59	6.25	0.037	0.044	n/a	1.0	1.0
2/1/10	0.57	2.20	2.70	7.64	7.74	1.07	4.13	4.17	0.031	0.040	n/a	1.0	1.0
1/1/10	1.16	3.86	4.15	7.38	7.45	2.87	9.55	11.76	0.036	0.039	n/a	12.9	18.2
12/1/09	0.69	3.19	3.73	7.34	8.03	1.29	5.94	6.00	0.026	0.040	n/a	3.4	11.7
11/1/09	0.63	2.59	3.43	7.27	7.66	1.07	4.41	7.27	0.029	0.051	n/a	10.5	30.6
10/1/09	0.55	1.93	2.04	7.13	7.40	1.80	6.34	8.06	0.034	0.050	n/a	3.7	10.0
9/1/09	15.83	5.70	10.16	7.72	7.74	15.83	5.70	6.41	0.333	0.445	n/a	14.3	17.0
8/1/09	8.44	2.86	4.05	7.73	7.75	24.09	8.16	8.51	0.354	0.483	n/a	5.5	30.0
7/1/09	4.38	1.32	1.44	7.27	7.68	14.54	4.38	5.00	0.398	0.513	n/a	1.0	1.0
6/1/09	0.08	1.48	1.96	7.66	7.80	1.10	2.13	2.25	0.062	0.084	n/a	1.0	1.0
5/1/09	1.40	2.37	2.74	7.63	8.06	1.81	3.05	4.17	0.071	0.087	n/a	3.3	11.0
4/1/09	0.59	1.32	1.56	6.63	7.54	MISSING	3.32	3.32	0.054	0.067	n/a	2.7	7.2
3/1/09	0.83	2.07	2.85	7.48	7.77	2.43	6.08	8.40	0.048	0.062	n/a	1.0	1.0
2/1/09	0.77	2.09	2.53	7.74	7.80	1.49	4.05	4.80	0.044	0.066	n/a	1.0	1.0
1/1/09	0.57	1.71	2.30	7.83	7.86	1.25	3.75	4.80	0.040	0.046	n/a	19.0	360.0
12/1/08	0.39	1.65	2.03	7.86	7.89	0.97	4.15	5.20	0.028	0.048	n/a	1.0	1.0
11/1/08	0.25	1.60	2.11	7.54	7.86	0.81	5.09	6.40	0.019	0.025	n/a	1.0	1.0
10/1/08	0.34	1.53	1.95	7.75	7.82	0.09	4.13	4.55	0.027	0.044	n/a	1.0	1.0
######	0.43	1.83	1.92	6.93	7.05	0.47	2.03	2.2	0.028	0.035	n/a	1	1
######	0.26	0.94	1	7.69	7.86	1.03	3.76	4.49	0.033	0.049	n/a		
######	0.76	2.08	2.84	6.96	7.01	1.12	3.04	3.57	0.044	0.066	n/a		