NEW MEXICO
ENVIRONMENT DEPARTMENT

Surface Water Quality Bureau

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RON CURRY
Secretary
SARAH COTTRELL
Deputy Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

September 23, 2010

M. Sue Padilla, Assistant County Manager and Utilities Director
County of Doña Ana
845 North Motel Boulevard
Las Cruces, New Mexico 88007

RE: Major-Municipal, SIC 4952, NPDES Compliance Evaluation Inspection, County of Dona Ana, South Central Regional Wastewater Treatment Facility, NM0030490, August 27, 2010

Dear Ms. Padilla,

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. Mireya Carnero, Lead Operator of the South Central Regional Wastewater Treatment Facility during this 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-Wagnon, USEPA (6EN-WM) by e-mail
Diana McDonald, USEPA (6EN-WM) by e-mail
Larry Giglio, USEPA (6WQ-PP) by e-mail
Frank Fiore NMED District III Manager by e-mail
Kurt Moffat, Operations Manager, Utilities Dept, County of Doña Ana by e-mail (kurtm@donaanacounty.org)

Form Approved
OMB No. 2040-0003
Approval Expires 7-31-85

NPDES Compliance Inspection Report

Section A: National Data System Coding

Transaction Code	NPDES	yr/mo/day	Inspec. Type	Inspector	Fac Type
1 N 2 5 3	N M 0 0 3 0 4 9 0 11	12 1 0 0 8 2 7 17	18 C	19 S 20	1

Remarks: MAJOR MUNICIPAL DOMESTIC WWTP

Inspection Work Days	Facility Evaluation Rating	BI	QA	Reserved
67 69	70 2	71 N 72	N 73 74	75 MAJOR 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)*
South Central Regional Wastewater Treatment Facility (WWTF). From I-25, travel west on NM 227 (Vado Exit), turn south on NM 478, turn west on NM 189 (Esslinger Road), turn south on Montes Road, turn east on E. Sloan Road and travel approximately 0.5 miles. Doña Ana County

Entry Time /Date
0800 hours / 08/27/2010

Exit Time/Date
1220 hours / 08/27/2010

Permit Effective Date
June 1, 2008

Permit Expiration Date
May 31, 2013

Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s)
Mireya Carnero, Lead Operator, Doña Ana County, Utilities Department, 575-525-6194, cell 621-5084 and fax 525-6199

Name, Address of Responsible Official/Title/Phone and Fax Number
M. Sue Padilla, County of Doña Ana, 845 North Motel Boulevard, Las Cruces, New Mexico 88007 / Assistant County Manager and Utilities Director / 575-647-7142 and fax 525-6199

Contacted: Yes [ ] No [*]

Other Facility Data
Outfall 001
Latitude 32.09031°
Longitude -106.65994°

SIC 4952

Section C: Areas Evaluated During Inspection

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

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

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

1. **SEE ATTACHED CHECKLIST REPORT WITH FURTHER EXPLANATIONS AND PHOTO LOG.**
2. **A COMPLIANCE EVALUATION INSPECTION REPORT FOR INDUSTRIAL STORMWATER (NPDES TRACKING NO. #NMU001675) WAS SUBMITTED UNDER A SEPARATE EPA 3560 FORM.**

Name(s) and Signature(s) of Inspector(s)	Agency/Office/Telephone/Fax	Date
Erin S. Trujillo	**NMED/SWQB/505-827-0418**	**09/23/2010**
/s/ Erin S. Trujillo		
Signature of Management QA Reviewer **Richard E. Powell** ***/s/ Richard E. Powell***	**Agency/Office/Phone and Fax Numbers** **NMED/SWQB/505-827-2798**	**Date** **09/23/2010**

County of Doña Ana **South Central Regional Wastewater Treatment Facility - August 27, 2010**	PERMIT NO. **NM0030490**

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: **Reviewed DMRs submitted since last inspection (9/2009 thru 7/2010); records for April, May and June 2010; and WET report dated 09/10/2009 and 03/10/2010.**

1. ANALYTICAL RESULTS CONSISTENT WITH DATA REPORTED ON DMRs. **Free Chlorine results reported as TRC** ☐ 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. **pH and TRC bench sheets did not record time of analysis** ☐ 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. **See further explanations** ☐ Y ☒ N ☐ NA

SECTION C - OPERATIONS AND MAINTENANCE

TREATMENT FACILITY PROPERLY OPERATED AND MAINTAINED. ☐ S ☒ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED* ***Yes***)
DETAILS: **Collection system overflow (1,500 gallons) occurred on 05/19/2010.**

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 . **On-site diesel generator** ☒ 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 **No, but additional treatment units/procedures in place.** ☐ S ☒ M ☐ U ☐ NA

6. ADEQUATE NUMBER OF QUALIFIED OPERATORS PROVIDED. **Qualifications satisfactory, but facility lacks adequate staffing on Sunday** ☐ S ☒ M ☐ U ☐ NA

7. SPARE PARTS AND SUPPLIES INVENTORY MAINTAINED. ☒ S ☐ M ☐ U ☐ NA

8. OPERATION AND MAINTENANCE MANUAL AVAILABLE. **O&M Manual dated June 2004 (not updated/supplemented)** ☒ Y ☐ N ☐ NA
STANDARD OPERATING PROCEDURES AND SCHEDULES ESTABLISHED. **Daily PM worksheet, but no written SOP** ☐ Y ☒ N ☐ NA
PROCEDURES FOR EMERGENCY TREATMENT CONTROL ESTABLISHED. ☐ Y ☒ N ☐ NA

County of Doña Ana South Central Regional Wastewater Treatment Facility - August 27, 2010	PERMIT NO. **NM0030490**

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. **No TRC monitoring**	☐ Y ☒ N ☐ NA
5. SAMPLING AND ANALYSES PERFORMED AT FREQUENCY SPECIFIED IN PERMIT. **No TRC monitoring**	☐ Y ☒ N ☐ NA
6. SAMPLE COLLECTION PROCEDURES ADEQUATE **See further explanations for pH and WET monitoring**	☐ Y ☒ N ☐ NA
a) SAMPLES REFRIGERATED DURING COMPOSITING.	☒ Y ☐ N ☐ NA
b) PROPER PRESERVATION TECHNIQUES USED. **See further explanations for WET monitoring**	☐ Y ☒ N ☐ NA
c) CONTAINERS AND SAMPLE HOLDING TIMES CONFORM TO 40 CFR 136.3. **Holding times for pH not documented**.	☐ 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? **Duplicate results reported, but frequency not.**	☒ Y ☐ N ☐ NA

SECTION E - FLOW MEASUREMENT

PERMITTEE FLOW MEASUREMENT MEETS PERMIT REQUIREMENTS. ☐ S ☐ M ☒ U ☐ NA *(FURTHER EXPLANATION ATTACHED* ***Yes*** *)*
DETAILS**: Flow is intermittent (batches controlled by weir).**

1. PRIMARY FLOW MEASUREMENT DEVICE PROPERLY INSTALLED AND MAINTAINED. TYPE OF DEVICE **18-in Parshall flume (prefabricated**)	☒ Y ☐ N ☐ NA
2. FLOW MEASURED AT EACH OUTFALL AS REQUIRED. **Not continuously totalized daily**	☐ Y ☒ N ☐ NA
3. SECONDARY INSTRUMENTS (TOTALIZERS, RECORDERS, ETC.) PROPERLY OPERATED AND MAINTAINED.	☒ Y ☐ N ☐ NA
4. CALIBRATION FREQUENCY ADEQUATE. **Initial calibration information not known/not available.**	☐ Y ☒ N ☐ NA
RECORDS MAINTAINED OF CALIBRATION PROCEDURES.	☐ Y ☒ N ☐ NA
CALIBRATION CHECKS DONE TO ASSURE CONTINUED COMPLIANCE. **Checks conducted 1/Qtr**	☒ 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: **pH, TSS, BOD5, and E.coli bateria conducted on-site. TRC required by permit not conducted (Chlorine measured on-site, not TRC). Did not inspect contract laboratories.**

1. EPA APPROVED ANALYTICAL PROCEDURES USED *(40 CFR 136.3 FOR LIQUIDS, 503.8(b) FOR SLUDGES)* **Only 2 buffers used for pH**	☐ Y ☒ N ☐ NA

County of Doña Ana South Central Regional Wastewater Treatment Facility - August 27, 2010	PERMIT NO. **NM0030490**

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. **See further explanations for BOD5** ☐ S ☒ M ☐ U ☐ NA

4. QUALITY CONTROL PROCEDURES ADEQUATE. **No written procedures** ☐ S ☐ M ☒ U ☐ NA

5. DUPLICATE SAMPLES ARE ANALYZED. **10 (E.coli, TSS, BOD5), Not documented (pH)** % 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	**1) InterLab (575-646-6611)**	**2) Bio-Aquatic Testing, Inc. (972-242-7750)**
LAB ADDRESS	**4200 S Research Dr, Genesis B, Las Cruces, NM 88003**	**2501 Mayes Rd, STE 100, Carrollton, TX 75006**
PARAMETERS PERFORMED	**Sludge**	**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
Effluent flume	**No**	**No**	**No**	**No**	**No**	**Clear**	**No**
001	**No**	**No**	**No**	**No**	**No**	**Clear**	**No**

RECEIVING WATER OBSERVATIONS: **TRC had not been monitored (time period unknown/not readily available); therefore, it is not documented if permit effluent limits were met. Rio Grande was turbid on day of inspection.**

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: **Not Applicable** (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

County of Doña Ana, South Central Regional Wastewater Treatment Facility
NPDES Permit No. NM0030490
Compliance Evaluation Inspection
August 27, 2010

Further Explanations

Introduction

On August 27, 2010, Erin Trujillo of the New Mexico Environment Department (NMED), Surface Water Quality Bureau (SWQB) conducted a Compliance Evaluation Inspection (CEI) at the South Central Regional Wastewater Treatment Facility (WWTF) in Doña Ana County, New Mexico. The facility has a design flow capacity of 1.05 million gallons per day (MGD) and is classified as a major 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 NM0030490, which regulates discharge of treated municipal wastewater from outfall 001 to the Rio Grande in Segment 20.6.4.101 *State of New Mexico Standards for Interstate and Intrastate Surface Waters, 20.6.4 New Mexico Administrative Code (NMAC).*

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 arrived at the facility at approximately 0800 hours on August 27, 2010. Upon arrival of Mireya Carnero, Lead Operator, South Central Regional Wastewater Treatment Facility, the inspector made introductions, explained the purpose of the inspection, presented credentials and toured the facility with Ms. Carnero. Mr. Kurt Moffatt, Operations Manager, Utilities Department, County of Doña Ana was contacted, but was unable to attend the inspection. An exit interview to discuss preliminary findings was conducted with Ms. Carnero on site. The inspector left the facility at approximately 1220 hours on the day of the inspection. Preliminary findings were discussed by telephone with Mr. Moffatt on September 3, 2010.

Treatment Scheme

South Central Regional WWTF serves a population of approximately 8,000 from the Vado/Del Cero, La Mesa/San Miguel, Berino, Las Palmeras/Montana Vista and Chamberino service areas. The plant is staffed from 7 am – 4 pm Monday thru Friday and 8 am – 5 pm on Saturday (no staff on Sundays) according to the on-site permittee representative. Raw domestic sewage, collected from 28 lift stations and 16-inch force main, enters the plant's lift station (used for recirculation) and is then pumped to the entrance head works. According to the on-site permittee representative, influent flows are not measured. An on-site diesel generator is exercised once week for approximately 30 minutes according to the on-site permittee representative.

The entrance works includes a grinder, fine screen and conveyor unit. On the day of the inspection, the grinder was broken. Influent flowed through the maintenance bypass channel with manual bar screen. Flow is then routed through a grit chamber and then equalization basin (pre-react basin) before entering one of two sequencing batch reactors (SBR) basins for biological treatment. Only one SBR basin is operated at a time for wastewater treatment. Floating solids and scum are collected manually. The reactor basins are designed to operate in a diffused aeration, clarification, and clear liquid decant sequence. After a programmed time interval, the aeration is stopped to allow for settling of the microorganisms from the treated wastewater. The solids settle to the bottom of the reactor and are either retained with in the reactor (RAS) or wasted (WAS) to a sludge holding tank (aerobic digester unit).

After settling, clarified wastewater in the reactor is decanted and can be collected and stored in a wash water holding tank. In addition to basin cleaning, wash waters are used to wet the facility's aerated biofilter to control odors. Clarified wastewater not diverted for wash water flows through an ultra-violet (UV) disinfection unit for pathogen control UV unit that contains five modules. On the day of the inspection, electronic controls and alarms for the UV disinfection unit were not operating. The on-site representative stated that the UV system was not efficient and supplemental chlorine disinfection of the effluent is needed to meet E.coli bacteria permit effluent limits. A calcium hypochlorite (HTH) solution drip had been installed to supplement bacteria control provided by the UV system.

After the UV system, effluent flow (batch discharge approximately 6 times a day) enters a pre-fabricated 18-inch Parshall flume. Flow can be measured continuously using a Milltronics III ultrasonic level transducer and totalizer meter before being discharged to the Rio Grande at Outfall 001. Flow measurement record keeping is not automated (recorded on strip or circular charts). Totalized flow is recorded on hand written logs when the plant is staffed.

Sludge Management

Polyacrylamide emulsion polymer is added to the biosolids to enhance processing. Sludge is typically wasted to a belt filter press for dewatering until acceptable for final disposal to a landfill. On the day of the inspection, the sludge belt press was broken. A new belt press has been installed at the plant, but operator training had yet to occur. The facility also accepts liquid waste (approximately 25,000 gallons a day according to the on-site permittee representative) from septage haulers including waste from a frozen meat processing plant. The A transfer station for liquid waste was constructed east of the plant's lift station. The facility has three 25,000 gallon vertical storage tanks—one for WAS from the wastewater treatment facility and two for liquid waste from septage haulers. Polymer is mixed with the liquid waste in a separate storage tank to settle out solids. The facility's sludge is transferred to roll off containers and/or allowed to dry on-site prior to disposal. Decant from the roll off containers enters a drain system at the sludge processing area that leads to the plant's lift station. Processed sludge is transported by the County to the South Central Solid Waste Authority Corralitos Landfill west of Las Cruces, New Mexico.

Section C - Operations and Maintenance – Overall Rating of "M = Marginal"

Permit Requirements for Operations and Maintenance

Part III.B.2 (Standard Conditions, Duty to Mitigate) of the permit states:

> *The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.*

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.

Findings for Operation and Maintenance

Trash was observed in the pre-react basin on the day of the inspection (see Photo #2) which may indicate that the bar screen openings in the bypass channel are too large especially for continued use while the grinder is down. Problems with the grinder were discussed in the previous inspection report. Solids had collected on the outer wall of the active biological reactor (see Photo #1). This basin does not have an outer walkway making it difficult for operators to access the wall for cleaning or wash down. Solids were also observed in the flume on the day of the inspection (see Photos #3 and #4). Current cleaning practices should be reviewed, supplemented and/or additional wash down done to ensure adequate cleaning of the treatment works and flume to prevent exceedance of the permit's TSS effluent limits. The permit also states, "There shall be no discharge of floating solids…." Cleaning of the flume to ensure proper flow measurement is discussed below.

The facility's O&M manual has not been updated and written SOPs had not been prepared. The facility had daily preventative maintenance worksheets. But, there were no written SOPs, including no readily available written procedures for emergency treatment, or spill response and reporting. The facility has cited analytical methods, in this case, Standard Methods (SM) for the Examination of Water and Wastewater, 20th Edition, but no written quality control/quality assurance procedures for the on-site laboratory. **These are repeat findings.** An up to date O&M manual and written SOPs can be valuable tools to train new staff or during emergencies.

Adequate staffing had not been provided and record keeping had not been conducted on Sundays to carry out operation, maintenance and testing functions required by the permit for flow measurement, disinfection and TRC effluent monitoring while the UV system was not fully operational. Because there is a lack of record keeping for chlorine tank volume and chlorine dosage (drips per minute) on Sunday, it was not documented that adequate back up or supplemental disinfection occurs.

Section B - Recordkeeping and Reporting Evaluation – Overall Rating of "U = Unsatisfactory";

Section D - Self-Monitoring – Overall Rating of "U = Unsatisfactory";

Section E - Flow Measurement – Overall Rating of "U = Unsatisfactory";

Section F - Laboratory – Overall Rating of "U = Unsatisfactory"; and

Section G - Effluent/Receiving Waters Observations – Overall Rating of "Unsatisfactory"

Permit Requirements for Recordkeeping and Reporting, Self-Monitoring, Flow Measurement, Laboratory and Effluent

Part III.C.2 (Representative Sampling) of the permit states:

Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

Part III.C.4 (Standard Conditions, Record Contents) of the permit states:

Records of monitoring information shall include:

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

Part III.C.5 (Standard Conditions, Monitoring Procedures) of the permit requires:

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.

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.

Part III, Section C.6 of the permit states:

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

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

Monitoring results must be reported on Discharge Monitoring Report (DMR) Form EPA No. 3320-1 in accordance with the "General Instructions" provided on the form.

Part III.D.5 (Standard Conditions, Additional Monitoring by the Permittee) of the permit states:

If the permittee monitors any pollutant more frequently than required by this permit, using test procedures approved under 40 CFR Part 136 or as specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the Discharge Monitoring Report (DMR). Such increased monitoring frequency shall also be indicated on the DMR.

Findings for Recordkeeping and Reporting, Self-Monitoring and Flow Measurement, Laboratory and Effluent

pH

Sampling and analyses bench sheets did not include the time of analyses. It was not documented that pH monitoring holding times conform to 40 CFR 136.3 (samples analyzed within 15 minutes of collection). SM 20th

Edition 4500-H+ requires the use of three buffer solutions, but only 2 buffers were used in instrument calibration checks. Quality control/quality assurance duplicate analyses for pH was not documented in the reviewed records. Ten percent of the samples should be duplicated.

TRC

It was not documented that TRC effluent limits were met when chlorine was used. Part I.A (Limitations and Monitoring Requirements) of the permit requires TRC monitoring daily and Footnote #2 states, "*TRC shall be measured during periods when chlorine is used as either backup bacteria control or when disinfection of plant treatment equipment is required.*" When samples were collected, free chlorine (not total residual) analyses were conducted. Free chlorine analytical results were incorrectly reported as TRC on DMRs. The on-site permittee representative did not readily know how long the incorrect test reagents/procedures had been used.

It was noted that the facility's chlorine monitoring bench sheets also need to be updated with the time of analysis to document that holding times conform to 40 CFR 136.3. When chlorine is used, TRC test result units and detection limits will need to be recorded to support reporting a value of "zero" on DMRs. Part II.A of the permit requires that analyses be performed to the listed Minimum Quantification Level (MQL). The MQL for TRC in Appendix A of the permit is 33 micrograms per liter (µg/L) or 0.033 milligrams per liter (mg/L). For example, analytical results on bench sheets reported as "0.0 mg/L" would not document a low enough detection limit to report "zero" on DMRs. Quality control/quality assurance practices, including periodic duplicates and spikes, will also be needed. Ten percent of the samples should be duplicated.

Flow Measurement

Flow measurements recorded on the facility's effluent flow totalizer logs did not meet permit requirements. The actual frequency of measurement had not been accurately reported on DMRs. Part I.A of the permit requires a continuous frequency totalizing meter sample type, and reporting of Daily Max and calculated 30 DA AVE and 7 DA AVE on DMRs. Totalized effluent flow measurements are not recorded each day at the facility. Following a Sunday or other gap, recorded totalized flow measurements did not represent a 24-hour period. Therefore, totalized flows were not continuously recorded for Daily Max reporting purposes. Because the totalized flow measurements from the meter were not logged at the same time of the day (at the beginning and end of the month and at the beginning and ending of the facility's week Sunday-Saturday) calculated 30 DA AVE and 7 DA AVE were also incorrect. Record keeping of totalized flow from the facility's meter for a defined week and defined 24 hour day (e.g., Sunday 0800 hours to Saturday 0800 hours) is needed.

It is not documented that the facility's flow measurement calibration checks (comparing the staff gage measurement with the depth and flow rate recorded at the meter) is sufficient. Performance checks of the facility's flume secondary instrumentation is conducted and documented once per quarter. Accuracy of flume-based measuring system depends upon a combination of accuracies of the flume and secondary instrumentation. Information that a complete calibration of the primary flume recommended after installation (e.g., using three flow rates, checking levels of the flume for any changes due to settlement) was not available on the day of the inspection. Also, it is not known how much the solid accumulation inside the flume may effect roughness of the flume surface and flow measurement. It is recommended that flume surfaces be wiped down weekly to free them of slimes or other coatings. The transducer was mounted on a pipe that extended below the water surface during discharge on the day of the inspection. This pipe downstream of the transducer did not appear to affect flow at the transducer, but any debris that may collect during discharge may affect accuracy and/or readings. Flume manufacture's recommendations on transducer mounting should be reviewed.

County of Doña Ana, South Central Regional Wastewater Treatment Facility
NPDES Permit No. NM0030490
Compliance Evaluation Inspection
August 27, 2010

BOD5

BOD5 monitoring did not meet permit requirements in May and June of 2010. Part I.A of the permit requires BOD5 effluent monitoring once/week. Based on reviewed facility bench sheets, invalid BOD5 test results were used in calculated 30 DA AVE concentrations on DMRs and satisfactory quality controls procedures were not documented in records reviewed as discussed below:

- SM 20th Edition 5210 B 5-Day BOD Test states, *"If residual chlorine is present, dechlorinate sample…."* Free chlorine (not residual chlorine) of the BOD5 sample was measured for pretreatment checks according to the on-site permittee representative. Therefore, it is not documented if residual chlorine was present, proper pretreatment was conducted, and sample results were valid.

- SM 20th Edition 5210 B 5-Day BOD Test states for dilution water blanks after 5 days, *"The DO uptake should not be more than 0.2 mg/L and preferably not more than 0.1 mg/L."* Drops greater than 0.2 mg/L occurred on 04/14, 04/28, 05/12, 06/9, 06/16, and 06/23/2010. Dilution water having a DO uptake greater than 0.2 mg/L is to be discarded, and either sources of contamination eliminated or alternative dilution water source selected. Reviewed facility BOD5 worksheets do not indicate if the water was replaced or if the cause of the excessive drops was investigated (e.g., check bottles for cleanliness, recalibrate the DO meter, check the dilution water carboy for cleanliness, replace aeration hose and pipet, clean the DO electronde in a separate bottle prior to use).

- SM 20th Edition 5210 states *"DO uptake attributable to the seed added to each bottle should be between 0.6 and 1.0 mg/L."* Reviewed BOD5 worksheets indicate that the seed correction factors ranged from 0.46 to 0.87 mg/L. Uptake below 0.6 mg/L was recorded on 4/28 and 05/26/2010. DO uptake outside this range does not invalidate analytical results, but subsequent BOD5 worksheets did not indicate if quality control adjustments to the volume of seed were conducted in an attempt to correct this situation. Reasons for changes in seed volume on the 5/12/2010 was not documented on the bench sheet.

- Glucose-Glutamic Acid (GGA) Standard checks described in SM 20th Edition 5210 B 5-Day BOD Test were not within acceptable range (198 ±30.5 mg/L or 167.5 to 228.5 mgl/L) on three occasions in May and June 2010. Recorded averages of GGA checks were outside the acceptable range on 05/05/2010 (158.00 + 174.00 / 2 = 166) and 06/23/2010 (218.50 + 240.50 = 229.5); therefore the test results for these samples were invalid and were incorrectly used in calculated 30 DA AVE reported on DMRs. Because the results were invalid, the facility did not satisfy the once/week monitoring requirement of the permit.

Loading Calculations for TSS and BOD5

As previously discussed, flow measurement did not meet permit requirements. Therefore, there is insufficient record keeping to correctly calculate or verify loading for TSS and BOD5.

It appears that the facility incorrectly uses their estimated 30 DA AVE and the 7 DA AVE flow in reporting 30 DA AVE and 7 DA AVE loading for TSS and BOD5. Also, totalized flow measurements were logged prior to sample collection on the reviewed records. Always be sure to use the flow measurement determined on the day or representative of the day when samples are collected. Also, hand written logs for recording flow measurement need to be legible. Flow entries and calculations for April 2010 were scratched out and written over. Legibility is especially important to verify daily totalized flow measurements when there are no printed strip charts or penned circular charts.

WET

Except for comments on biomonitoring DMRs referring to a Phillip Jennings e-mail dated 07/20/2009 and letter dated 06/10/2009, NMED SWQB files do not contain the permittee's certification and EPA's letter of confirmation of the WET monitoring frequency reduction to 1/6 months for Daphnia pulex and 1/year for Pimephales promela (see Part II.E.6 Monitoring Frequency Reduction of the permit).

Based on reviewed laboratory reports (Bio Aquatic Testing, Inc. reports dated September 10, 2009 and March 10, 2010), synthetic dilution water was substituted for receiving water in toxicity testing. However, the reports did not document that the receiving water was unsatisfactory as a result of instream toxicity or that the synthetic dilution water had a pH, hardness, and alkalinity similar to that of the receiving water (see Part II.E.3.c.ii Whole Effluent Toxicity Testing, Dilution Water) of the permit.

The chain of custody form for a sample logged into Bio Aquatic Testing, Inc. on September 10, 2009 indicates a sample temperature of 6 °C. Part II.E.3.d.ii (Samples and Composites) of the permit states, *"Samples shall be chilled to 4 degrees Centigrade during collection, shipping, and/or storage."* Table IA—Aquatic Toxicity Tests in 40 CFR 136.3 requires a cooling preservation of ≤6 °C and maximum holding time of 36 hours.

Reporting Frequency of Analysis on DMRs

Duplicate analysis results for E.coli bacteria, TSS and BOD5 were used in calculations reported on the DMRs, but such increased monitoring frequency was not indicated on the DMRs.

NMED/SWQB
Official Photograph Log
Photo # 1

Photographer: Erin S. Trujillo	Date: 08/27/2010	Time: 0843 hours
City/County: Near Vado and La Mesa / Doña Ana		State: New Mexico
Location: South Central Regional Wastewater Treatment Facility (NPDES Permit No. NM0030490)		
Subject: Arrow points to solid buildup on outer wall of active SBR basin.		

NMED/SWQB
Official Photograph Log
Photo # 2

Photographer: Erin S. Trujillo	Date: 08/27/2010	Time: 0844 hours
City/County: Near Vado and La Mesa / Doña Ana		State: New Mexico
Location: South Central Regional Wastewater Treatment Facility (NPDES Permit No. NM0030490)		
Subject: Trash accumulation in pre-react basin.		

NMED/SWQB
Official Photograph Log
Photo # 3

Photographer: Erin S. Trujillo	Date: 08/27/2010	Time: 0903 hours
City/County: Near Vado and La Mesa / Doña Ana		State: New Mexico
Location: South Central Regional Wastewater Treatment Facility (NPDES Permit No. NM0030490)		
Subject: No discharge in flume. Solid buildup was observed on walls and floor of flume		

NMED/SWQB
Official Photograph Log
Photo # 4

Photographer: Erin S. Trujillo	Date: 08/27/2010	Time: 1032 hours
City/County: Near Vado and La Mesa / Doña Ana		State: New Mexico
Location: South Central Regional Wastewater Treatment Facility (NPDES Permit No. NM0030490)		
Subject: Effluent discharge in flume. Transducer is mounted on a pipe that extends below the water surface. No debris had collected on this pipe on day of the inspection.