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Surface Water Quality Bureau

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DAVE MARTIN
Secretary

BUTCH TONGATE
Acting Deputy Secretary

Certified Mail - Return Receipt Requested

October 11, 2011

Debi Lee, Village Manager
Village of Ruidoso
313 Cree Meadows Drive
Ruidoso, New Mexico 88345

RE: Minor Non-Municipal, SIC 4941, NPDES Compliance Evaluation Inspection, Village of Ruidoso/Alto Crest Water Treatment Plant No. 3, NM0028533, September 20, 2011

Dear Ms. Lee,

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 your staff during the inspection. If you have any questions about this inspection report, please contact me at (505) 827-0418.

Sincerely,

/s/ Erin S. Trujillo
Erin S. Trujillo
Surface Water Quality Bureau

cc: Marcia Gail Adams, USEPA (6EN-AS) by e-mail
Samuel Bates, EPA (6EN-AS) by e-mail
Carol Peters-Wagnon, USEPA (6EN-WM) by e-mail
Diana McDonald, USEPA (6EN-WM) by e-mail
Sonia Hall and Hannah Branning, USEPA (6EN-WC) by e-mail
Larry Giglio, USEPA (6WQ-PP) by e-mail
Mike Kessler, Acting Manager, 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

Transaction Code	NPDES	yr/mo/day	Inspec. Type	Inspector	Fac Type
1 N 2 5 3 N M 0 0 2 8 5 3 3 11 12 1 1 0 9 2 0 17 18 C 19 S 20 2					
Remarks					
W A T E R T R E A T M E N T P L A N T					
Inspection Work Days	Facility Evaluation Rating	BI	QA	Reserved	
67 69	70 2	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) Village of Ruidoso, Alto Crest Water Treatment Plant (WTP) No. 3, 103 Via Selva (street signs have changed--previously Eagle Way), Ruidoso, New Mexico. Lincoln County.	Entry Time /Date 1330 hours / 09/20/2011	Permit Effective Date April 1, 2007
	Exit Time/Date 1735 hours / 09/20/2011	Permit Expiration Date March 31, 2012
Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s) Bill Markham, WTP Operator, Village of Ruidoso / 575-257-5525 Gary Goss, Chief Water Production Operator, Village of Ruidoso / 575-551-1304 Carlos Salas, Contractor for Village of Ruidoso	Other Facility Data Outfall 001 Latitude N. 33.395°, Longitude W. -105.670°	
Name, Address of Responsible Official/Title/Phone and Fax Number Debi Lee, Village Manager, Village of Ruidoso, 313 Cree Meadows Drive, Ruidoso, New Mexico 88345 / Village Manager / 575-258-4343 or 1-877-700-4343	SIC 4941	
	Contacted Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

Section C: Areas Evaluated During Inspection

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

M	Permit	M	Flow Measurement	M	Operations & Maintenance	N	CSO/SSO
U	Records/Reports	U	Self-Monitoring Program	N	Sludge Handling/Disposal	N	Pollution Prevention
S	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.

Name(s) and Signature(s) of Inspector(s) Erin S. Trujillo /s/ Erin S. Trujillo	Agency/Office/Telephone/Fax NMED/SWQB/505-827-0418	Date 10/11/2011
Signature of Management QA Reviewer Richard E. Powell /s/ Richard E. Powell	Agency/Office/Phone and Fax Numbers NMED/SWQB/505-827-2798	Date 10/11/2011

SECTION A - PERMIT VERIFICATION

PERMIT SATISFACTORILY ADDRESSES OBSERVATIONS S M U NA (FURTHER EXPLANATION ATTACHED Yes)
 DETAILS: **Renewal application due 180 days prior to expiration date of the permit on March 31, 2012.**

- 1. CORRECT NAME AND MAILING ADDRESS OF PERMITTEE Y N NA
- 2. NOTIFICATION GIVEN TO EPA/STATE OF NEW DIFFERENT OR INCREASED DISCHARGES **See Further Explanations** Y N NA
- 3. NUMBER AND LOCATION OF DISCHARGE POINTS AS DESCRIBED IN PERMIT Y N NA
- 4. ALL DISCHARGES ARE PERMITTED **See Further Explanations** 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 April 2009 – March 2011 DMRs at NMED SWQB in Santa Fe since previous CEI on May 13, 2009.**

- 1. ANALYTICAL RESULTS CONSISTENT WITH DATA REPORTED ON DMRs. Y N NA
- 2. SAMPLING AND ANALYSES DATA ADEQUATE AND INCLUDE **TRC** 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. **TRC** Y N NA
 - d) RESULTS OF ANALYSES AND CALIBRATIONS. Y N NA
 - e) DATES AND TIMES OF ANALYSES. **TRC** Y N NA
 - f) NAME OF PERSON(S) PERFORMING ANALYSES. **TRC** 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: **De-chlorination and Sedimentation Basin**

- 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. **Dechlor Tablets** S M U NA
- 8. OPERATION AND MAINTENANCE MANUAL AVAILABLE. Y N NA
 STANDARD OPERATING PROCEDURES AND SCHEDULES ESTABLISHED. **But, no written SOP for continuous flow** Y N NA
 PROCEDURES FOR EMERGENCY TREATMENT CONTROL ESTABLISHED. **No written procedures for emergency treatment** Y N NA

SECTION C - OPERATIONS AND MAINTENANCE (CONT'D)

9. HAVE BYPASSES/OVERFLOWS OCCURRED AT THE PLANT OR IN THE COLLECTION SYSTEM IN THE LAST YEAR? Y N NA
 IF SO, HAS THE REGULATORY AGENCY BEEN NOTIFIED? 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. **Samples not analyzed for TRC** Y N NA

5. SAMPLING AND ANALYSES PERFORMED AT FREQUENCY SPECIFIED IN PERMIT. **Not documented for TRC** Y N NA

6. SAMPLE COLLECTION PROCEDURES ADEQUATE Y N NA

a) SAMPLES REFRIGERATED DURING COMPOSITING. Y N NA

b) PROPER PRESERVATION TECHNIQUES USED. **No cooling preservation for TSS** Y N NA

c) CONTAINERS AND SAMPLE HOLDING TIMES CONFORM TO 40 CFR 136.3. **Type of containers 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? Y N NA

SECTION E - FLOW MEASUREMENT

PERMITTEE FLOW MEASUREMENT MEETS PERMIT REQUIREMENTS. S M U NA (FURTHER EXPLANATION ATTACHED Yes).
 DETAILS: **Backwash and filter to waste flow to basin estimated. No recordkeeping/estimate for continuous flow.**

1. PRIMARY FLOW MEASUREMENT DEVICE PROPERLY INSTALLED AND MAINTAINED. Y N NA
 TYPE OF DEVICE **Filter Backwash = M-Series Mag Flow Meter w/Recorder**

2. FLOW MEASURED AT EACH OUTFALL AS REQUIRED. **Estimate/No flow measurement device at outfall** Y N NA

3. SECONDARY INSTRUMENTS (TOTALIZERS, RECORDERS, ETC.) PROPERLY OPERATED AND MAINTAINED. **Filter Backwash** Y N NA

4. CALIBRATION FREQUENCY ADEQUATE. **No calibration** Y N NA
 RECORDS MAINTAINED OF CALIBRATION PROCEDURES. **No calibration.** Y N NA
 CALIBRATION CHECKS DONE TO ASSURE CONTINUED COMPLIANCE. **No calibration.** 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. **Filter Backwash** Y N NA

SECTION F – LABORATORY

PERMITTEE LABORATORY PROCEDURES MEET PERMIT REQUIREMENTS. S M U NA (FURTHER EXPLANATION ATTACHED Yes).
 DETAILS: **Contract and Village of Ruidoso WWTP laboratories were not inspected. pH and TRC monitored on site.**

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

SECTION F - LABORATORY (CONT'D)

- 2. IF ALTERNATIVE ANALYTICAL PROCEDURES ARE USED, PROPER APPROVAL HAS BEEN OBTAINED. **TRC** Y N NA
- 3. SATISFACTORY CALIBRATION AND MAINTENANCE OF INSTRUMENTS AND EQUIPMENT. S M U NA
- 4. QUALITY CONTROL PROCEDURES ADEQUATE. **Methods, but no site specific written QC procedures.** S M U NA
- 5. DUPLICATE SAMPLES ARE ANALYZED. **Lab TSS and pH 100** % OF THE TIME. Y N NA
- 6. SPIKED SAMPLES ARE ANALYZED. **Lab TSS (not documented), pH and Se = 100** % OF THE TIME. Y N NA
- 7. COMMERCIAL LABORATORY USED. Y N NA

LAB NAME **1) Hall Environmental Analysis Laboratory** **2) Village of Ruidoso WWTP**
 LAB ADDRESS **4901 Hawkins NE, Albuquerque, NM 87109, 505-345-3975** **NPDES Permit No. NM0029165**
 PARAMETERS PERFORMED **Selenium** **TSS**

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 Discharge						

RECEIVING WATER OBSERVATIONS: **Standing water in headgate and pipe outlet above stream was clear. Water in stream channel below outfall was also clear. TRC effluent limits were exceeded in May and June of 2009.**

SECTION H - SLUDGE DISPOSAL

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

DETAILS: **WTP does not generate domestic sewage sludge.**

- 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: **NA** (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

Village of Ruidoso/Alto Crest Water Treatment Plant No. 3
NPDES Permit No. NM0028533
Compliance Evaluation Inspection
September 20, 2011

Further Explanations

Introduction

On September 20, 2011 Erin Trujillo of the New Mexico Environment Department (NMED), Surface Water Quality Bureau (SWQB) conducted a Compliance Evaluation Inspection (CEI) at the Village of Ruidoso, Alto Crest Water Treatment Plant (WTP) No. 3 at 103 Via Selva (formerly Eagle Way), Ruidoso near Alto in Lincoln County, New Mexico.

The WTP is classified as a minor industrial 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 NM0028533 which authorizes discharge of treated backwash water to unclassified Eagle Creek, thence to Devils Canyon, thence to Rio Ruidoso, thence to Rio Hondo, in Segment 20.6.4.208 *State of New Mexico Standards for Interstate and Intrastate Surface Waters, New Mexico Administrative Code (NMAC)* of the Pecos River Basin. Devils Canyon is a tributary of Rio Ruidoso from Rio Bonito to US Hwy 70 Bridge. This segment of Rio Ruidoso includes the designated uses of fish culture, irrigation, livestock watering, wildlife habitat, coldwater aquatic life and primary contact.

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

Upon arrival at the plant at approximately 1330 hours, the inspector made introductions, explained the purpose of the inspection, and presented credentials to Bill Markham, Village of Ruidoso WTP Operator. The inspector and Mr. Markham toured the plant, including the outfall location below Alto Crest Reservoir. Upon arrival of Gary Goss, Chief Water Production Operator, Village of Ruidoso at approximately 1430 hours, an inspection of record keeping for the Alto Crest WTP was continued at offices at the Grindstone Dam WTP. An exit interview to discuss preliminary findings was conducted with Mr. Goss and Carlos Salas, a contractor hired by Village of Ruidoso, at the Grindstone Dam WTP. The inspector left the Grindstone Dam WTP at approximately 1735 hours on the day of this inspection.

Treatment Scheme and Compliance Monitoring

Alto Crest WTP No. 3, is one of two plants providing drinking water for the Village. The source of raw water is from groundwater and surface water, including the Alto Crest reservoir. When needed, copper sulfate is used for algae control at Alto Crest reservoir. This plant utilizes a mixed media filtration system as well as chlorination for treatment of drinking water. Drinking water treatment processes include coagulation, flocculation, sedimentation and filtration. IWE 851, Poly (Diallyldimethylammonium Chloride) or (pDADMAC)[PD], and Ferric Sulfate are used for coagulation and flocculation during the drinking water treatment process.

Chlorine treated water is used during filter backwash. The timing of the backwash process varies and is controlled by on-site operators. Backwash operations did not occur during this inspection. In addition, chlorine treated water is continuously run through the plant's pipe system to minimize scale build up in instrumentation. Filter backwash, filter to waste process water and continuous flows are de-chlorinated

using Sodium Sulfite tablets at the plant. Flows are then carried via a pipeline to an excavated sedimentation basin (two joined channels or loop) located downstream of Alto Crest Reservoir adjacent to Eagle Creek. The basin channels join at a headgate at an inlet of a pipe with an outlet above Eagle Creek. Grit from the basin is periodically cleaned out.

Samples for compliance monitoring are taken from the flow entering the headgate. Samples are typically collected on Tuesday or Wednesday following a filter backwash according to the permittee's on-site representatives. The volume of water used for backwash is measured with an in-line mag meter with display showing gallons per minute (gpm) and totalized flow at the plant. Totalized backwash flows are recorded by hand on daily logs. Filter to waste flow to the basin is estimated and recorded on daily logs. Continuous flow to the basin is controlled by a valve, but the amount to the basin is not measured, estimated or recorded.

Section A - Permit Verification – Overall Rating of “M = Marginal”

Permit Requirements for Permit Verification

Part III.D.9 (Standard Conditions, Other Information) of the permit states:

Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, it shall promptly submit such facts or information.

Findings for Permit Verification

Discharge of the continuous flow of treated (de-chlorinated) water was not submitted in permit applications. Part I.A of the permit states, "...the permittee is authorized to discharge treated backwash water." Both filter backwash and filter to waste process water flow are discussed in USEPA's permit fact sheet prepared July 19, 2006 and on the Permittee's application received by USEPA on January 30, 2006. USEPA's fact sheet states, "...discharge of backwash water and flushing water occurs only when the operation of backwash takes place, it is not a continuous discharge."

Discharge of the continuous flow to the basin would also occur when the operation of backwash takes place. The low volume and rate of continuous flow to the basin was not of sufficient quantity to cause a discharge on the day of this inspection. Discharge of the treated filter backwash, filter to waste process water and/or continuous flow could also occur during rain events, if the basin did not have sufficient capacity (free board), and/or if the headgate was not maintained.

Section B - Recordkeeping and Reporting Evaluation – Overall Rating of “U = Unsatisfactory”;
Section D - Self-Monitoring – Overall Rating of “M = Marginal”; and
Section F - Laboratory – Overall Rating of “U = Unsatisfactory”

Permit Requirements for Recordkeeping and Reporting

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.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. The permittee shall submit the original DMR signed and certified as required by Part III.D.11 and all other reports required by Part III.D to the EPA at the address below. Duplicate copies of DMRs and all other reports shall be submitted to the appropriate State agency(ies)...

Part III.D.11 (Standard Conditions, Signatory Requirements) of the permit states:

All applications, reports, or information submitted to the Director shall be signed and certified.

- a. ALL PERMIT APPLICATIONS shall be signed as follows:...(3) FOR A MUNICIPALITY, STATE, FEDERAL, OR OTHER PUBLIC AGENCY - by either a principal executive officer or ranking elected official.*
- b. ALL REPORTS required by the permit and other information requested by the Director shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if: (1) The authorization is made in writing by a person described above; (2) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, or position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. A duly authorized representative may thus be either a named individual or an individual occupying a named position; and, (3) The written authorization is submitted to the Director.*

Permit Requirements for Self-Monitoring and Laboratory

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

- 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.*

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.B.3.a (Standard Conditions, Proper Operation and Maintenance) of the permit states:

... Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures.

Findings for Recordkeeping and Reporting, Self Monitoring and Laboratory

There were no written site-specific quality control procedures (e.g., field duplicates, preservation, container type for sample collection). Use of proper sample containers was not documented on SOPs or bench sheets.

pH and Total Residual Chlorine (TRC)

- It was not documented that TRC monitoring was currently being performed at a frequency specified in the permit. Required monitoring frequency for TRC is 1/day in the permit. Part I.A Footnote 1 of the permit states, “*The maximum TRC shall be monitored daily when discharge occurs.*” TRC monitoring results were only recorded when monitoring for pH was conducted (1/week). DMRs only re-stated the frequency permit requirements (daily) and not the actual frequency of analysis for TRC (e.g., 30/30, 31/31, etc.).
- Reviewed bench sheets with chlorine analysis results did not include TRC analytical methods and techniques. Actual date, times of analyses, and name of person(s) performing TRC analyses were not recorded.
- Samples collected for TRC monitoring were not analyzed using the correct reagent. It is was not recorded how long free chlorine reagent was incorrectly used instead of total reagent during testing.

Total Suspended Solids (TSS)

An adequate analytical quality control program was not documented on TSS bench sheets. For example:

- Proper preservation techniques were not used for TSS samples. Table II 40 CFR §136.3 lists cooling preservation (Cool, $\leq 6^{\circ}\text{C}$) requirements for TSS.
- TSS method blank results were not recorded on bench sheets.
- Standard method (SM) 2540 D states, “Duplicate determinations should agree within 5% of their average weight.” TSS results for laboratory duplicates in May 2011 were 0.70 mg/L and 0.40 mg/L. The laboratory duplicates did not agree within five percent of the average weight, in this case $0.05 \times$ the average weight of 0.55 mg/L $((0.70 + 0.40) / 2)$ equals 0.0275 mg/L.

Flow Measurement Record Keeping and Reporting

Reviewed record keeping, in this case “Water Loss” log and Backwash log for May 2011 did not include the individual(s) who performed the measurement (totalized flow record or filter to waste estimate). It was also noted that the totalized flow meter was reset in May 2011. Reasons for resetting the meter or confirmation that the reset would not affect estimated flow measurements was not recorded on the log for May 2011.

Spot checks of record keeping for higher than normal flows reported on June and October 2010 DMRs revealed errors--flows were slightly over reported on DMRs.

See additional findings for flow measurement (Section E) below.

DMR Signatory Requirements

A copy of a written authorization from the current village manager to USEPA identifying a duly authorized representative (named individual or position, in this case Randall Camp, Public Works Director, Village of Ruidoso) was not contained in NMED SWQB's files.

DMR submittal

Part I.C of the permit states, "*The permittee is required to submit regular quarterly reports as described above postmarked no later than the 28th day of the month following each reporting period.*" Confirmation that 2nd Quarter 2011 DMRs were postmarked by July 28, 2011 could not be confirmed in reviewed recordkeeping. As of the date of this report, NMED SWQB files still do not contain 2nd Quarter 2011 DMRs.

Permittee on-site representatives were reminded to send DMRs to NMED SWQB offices in Santa Fe. The following is the correct address:

Program Manager
Surface Water Quality Bureau, N2050
New Mexico Environment Department
P.O. Box 5469
Santa Fe, New Mexico, 87502

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

Permit Requirements for Operations and Maintenance

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...

Findings for Operation and Maintenance

The plant's written standard operating procedure (SOP) did not include de-chlorination procedures or steps to maintain a low volume and/or rate for the continuous flow to the basin. There were no written procedures for emergency treatment control.

Section E - Flow Measurement – Overall Rating of “M = Marginal”

Permit Requirements for Flow Measurement

Part III, Section C.5.b of the permit states:

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.

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.

Findings for Flow Measurement

There was no recordkeeping or estimated flow measurement for continuous flow to the basin.

There is no flow measurement system at the outfall to calibrate. In Part I.A of the permit, the frequency of analysis for discharge flow monitoring is daily average and the sample type required is estimate. It is not documented how accurate the estimated flow into the basin is compared to the true discharge rate at the outfall. Permittee's on-site representatives also stated that they were unable to calibrate the in-line backwash magnetic flow meter without removal of the meter. The Permittee should consider requesting USEPA to clarify accuracy and reliability standard conditions in the permit.