



**NEW MEXICO
ENVIRONMENT DEPARTMENT**



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Deputy Secretary

Certified Mail - Return Receipt Requested

January 15, 2015

Mr. Juan Lopez, President
Abiquiu MDWCA & MSWA
Post Office Box 133
Abiquiu, New Mexico 87510

Re: Abiquiu Wastewater Treatment Plant; Minor; Munciple Individual Permit; SIC 4952; Compliance Evaluation Inspection; NPDES Permit NM0024830; December 30, 2014

Dear Mr. Lopez:

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)
Fountain Place
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 Sandra Gabaldon at (505) 827-1041 or at sandra.gabaldon@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
Racquel Douglas, USEPA (6EN-WM) by e-mail
Gladys Gooden-Jackson (6EN-WC) by e-mail
Tung Tguyen, (6EN-WQ) by email
NMED District II by e-mail

ABIQUIU WASTEWATER TREATMENT PLANT

PERMIT NO: NM0024830

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. All samples taken at manhole prior to discharge except E. coli, which is taken at the discharge pipe. 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. Compositing samples only required for biomonitoring. Biomonitoring previously completed. 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 YES).
 DETAILS:

1. PRIMARY FLOW MEASUREMENT DEVICE PROPERLY INSTALLED AND MAINTAINED. Y N NA
 TYPE OF DEVICE: 60° V-Notch Weir
2. FLOW MEASURED AT EACH OUTFALL AS REQUIRED. Y N NA
3. SECONDARY INSTRUMENTS (TOTALIZERS, RECORDERS, ETC.) PROPERLY OPERATED AND MAINTAINED. Facility has primary device w/staff gage. No secondary instrument. Y N NA
4. CALIBRATION FREQUENCY ADEQUATE. Y N NA
 RECORDS MAINTAINED OF CALIBRATION PROCEDURES. Y N NA
 CALIBRATION CHECKS DONE TO ASSURE CONTINUED COMPLIANCE. Y N NA
5. FLOW ENTERING DEVICE WELL DISTRIBUTED ACROSS THE CHANNEL AND FREE OF TURBULENCE. Y N NA
6. HEAD MEASURED AT PROPER LOCATION. Y N NA
7. FLOW MEASUREMENT EQUIPMENT ADEQUATE TO HANDLE EXPECTED RANGE OF FLOW RATES. Y N NA

SECTION F - LABORATORY

PERMITTEE LABORATORY PROCEDURES MEET PERMIT REQUIREMENTS. S M U NA (FURTHER EXPLANATION ATTACHED YES).
 DETAILS:

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

Abiquiu (Village of) Wastewater Treatment Plant
NPDES Permit No. NM0024830
Compliance Evaluation Inspection
Inspection Date: December 30, 2014

Introduction:

On December 30, 2014, Sandra Gabaldón of the New Mexico Environment Department (NMED), along with Mr. Daniel Valenta, Surface Water Quality Bureau (SWQB) conducted a Compliance Evaluation Inspection (CEI) at the Abiquiu Wastewater Treatment Plant (WWTP). The Abiquiu WWTP has a design flow capacity of 0.04 MGD (million gallons per day) and is classified as a minor 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 NM0024830. This permit regulates the WWTP discharge to the Rio Chama in segment 20.6.4.116 according to the *State of New Mexico Standards for Interstate and Intrastate Surface Waters, 20.6.4. NMAC*. This segment includes the designated uses of irrigation, livestock watering, wildlife habitat, coldwater aquatic life, warmwater aquatic life and secondary contact.

The NMED performs a certain number of CEIs for the U.S. Environmental Protection Agency (USEPA), Region VI, under the NPDES permit program, in accordance with the Federal Clean Water Act. USEPA uses these inspections to determine compliance with the NPDES permit program. 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 WWTP at 1000 hours on December 30, 2014, Ms. Gabaldón conducted an entrance interview with Mr. Anthony Martinez, Operator (NM Certified Level III). Ms. Gabaldón presented her federal credentials and explained the purpose of the inspection. Mr. Martinez conducted a tour of the facility and provided records for review. An exit interview was conducted with Mr. Martinez at the facility at approximately 1200 hours on December 30, 2014 to present the preliminary findings of the inspection.

Treatment Scheme:

The Abiquiu WWTP serves a residential population of approximately 145. It also serves a restaurant, post office, medical office, a church and a public library. The activated sludge package plant is situated at ground level and consists of a one inch bar screen, an aeration basin, a clarifier, a chlorine contact chamber and a sludge digester. De-chlorination is achieved with sodium bisulfite tablets at the end of the chlorine contact chamber. There are two sludge drying beds and a sand filter.

Wastewater influent enters the facility via gravity flow with two main collection lines converging on-site into a single pipe, which directs flow into the headworks. Influent passes through the bar screen, which is manually cleaned when needed. When cleaned, the grit and screenings are bagged and transferred to the landfill for final disposal.

From the headworks, influent flows into an aeration chamber with two blowers that provide diffused air through a series of tubing situated at the bottom of the unit. The diffused air is controlled throughout the aeration chamber through a series of valves that can be manually opened and closed. One of the two blowers is always in use and the two units are alternated on a monthly basis.

After the aeration basin, wastewater enters the clarifier. The clarifier has a skimmer through which 50% of floatable solids are routed via an air lift pump to an aerated digester and 50% is sent back to the aeration chamber. Return activated sludge (RAS) from the clarifier is also equally split between the digester and the aeration chamber. The digester is primarily intended to further treat the floatable solids and a slot in the digester wall allows return flow of RAS into the aeration chamber. Wastewater in the clarifier flows over a weir, through a chlorine tablet box and into the chlorine contact chamber.

The chlorine contact chamber consists of metal baffles with staggered slots that extend the base of the unit that serve to increase the detention time of effluent. After passing through the final slot, the effluent flows over a V-notch weir and into a smaller basin which is a basket filled with de-chlorination tablets.

After de-chlorination, the operator can manually route the effluent directly to the outfall pipe or to the sand filter where it undergoes further treatment prior to discharging.

Sludge Management:

On the day of this inspection, it was noted that there were various piles of old sludge (appears to be older than two years) placed above bare ground with no secondary containment.

Village of Abiquiu Wastewater Treatment Plant
NPDES Permit No. NM0024830
Compliance Evaluation Inspection
Inspection Date: December 30, 2014

Further Explanations:

Note: The sections are arranged according to the format of the enclosed EPA Inspection Checklist (Form 3560-3), rather than being ranked in order of importance.

Section A – Permit:

The permittee was issued a Consent Agreement and Final Order; Docket Number: CWA-06-2011-1853 on September 10, 2014. The terms of settlement involved payment of a penalty of \$500.00.

The permittee was issued a Consent Agreement and Final Order: Docket Number: CWA-06-2013-1864 on September 17, 2014. The terms of settlement involved payment of a penalty of \$1000.00.

Section B – Recordkeeping and Reporting Evaluation – Overall rating of “Unsatisfactory”

The permit requires, in Part I.C.7:

The permittee shall submit a copy of an annual summary of the data that results from whole effluent toxicity testing to: U.S. Fish and Wildlife Service, EPA, NMED, and Ohkay Owingeh.

The permit requires, in Part I.D, Overflow Reporting:

The permittee shall report all overflows with the DMR submittal. These reports shall be summarized and reported in tabular format. The summaries shall include: date, time, duration, location, estimated volume, and cause of the overflow. They shall also include observed environmental impacts from the overflow; actions taken to address the overflow; and, the ultimate discharge location if not contained (e.g., storm sewer system, ditch, or tributary).

The permit requires, in Part I.E Pollution Prevention Requirements:

The permittee shall institute a program within 12 months of the effective date of the permit (or continue an existing one) directed towards optimizing the efficiency and extending the useful life of the facility. The permittee shall consider the following items in the program:

- a. The influent loadings, flow and design capacity;*
- b. The effluent quality and plant performance;*
- c. The age of the expected life of the wastewater treatment facility's equipment;*
- d. Bypasses and overflows of the tributary sewerage system and treatment works;*
- e. New developments at the facility;*
- f. Operator certification and training plans and status;*
- g. The financial status of the facility;*
- h. Preventive maintenance programs and equipment conditions and;*
- i. An overall evaluation of conditions at the facility.*

The permit requires, in Part II.C., Twenty-four hour oral reporting: Daily Maximum Limitation Violations:

Under the provisions of Part III.D.7.b.(3) of this permit, violations of daily maximum limitations for the following pollutants shall be reported orally to EPA Region 6, Compliance and Assurance Division, Water Enforcement Branch (6EN-W), Dallas, Texas, and concurrently to NMED and Ohkay Owingeh within 24 hours from the time the permittee becomes aware of the violation followed by a written report within five days.

*E. coli Bacteria
TRC*

Findings for Recordkeeping and Reporting:

The permittee has failed to provide 24-hour notice of non-compliance of the maximum daily discharge limitation for E. coli or TRC. The permittee is required to inform NMED, EPA and Ohkay Owingeh Pueblo within twenty-four hours followed by a written report with five days. The permittee has had exceedances of both TRC and E. coli daily maximum limitations throughout their permit term and have failed to report exceedances within 24 hours and has, in some instances, failed to provide a written report within five days.

Parameter:	Date of Violation	Written notification received by NMED:
E.coli	08/06/2013	08/28/2013
E.coli	07/03/2013	07/19/2013
TRC	10/04/2013	10/15/2013

TRC	10/07/2013	10/16/2013
E.coli	11/06/2013	12/02/2013
E.coli	01/07/2014	01/27/2014
E.coli	05/06/2014	05/27/2014

The permittee is required to submit whole effluent toxicity DMRs (written or NetDMR) once during the permit term. The permittee has failed to submit the results of their biomonitoring to EPA, NMED or Ohkay Owingey. Biomonitoring was completed on April 24, 2012. This was noted in the last inspection report, and the permittee has yet to submit the DMR for their biomonitoring results.

The permittee is required to submit a copy of an annual summary of the data that results from whole effluent toxicity testing to the US Fish and Wildlife Service, EPA, NMED and Ohkay Owingeh. The permittee has provided the biomonitoring report from Bio-Aquatic Testing, Inc. to NMED. However, there is no indication that they have provided this information to the US Fish and Wildlife Service, EPA or Ohkay Owingeh. This was noted in the previous inspection report and the permittee has yet to submit the annual report.

The permittee is required to establish a pollution prevention plan. The permittee has no written pollution prevention plan addressing the above requirements.

The commercial laboratory (Hall Environmental) provides the permittee with all required chain of custody records when submitting samples for analysis. It is noted that the chain of custody has the relinquishment of samples from the permittee to the courier that delivers the samples to Hall Environmental, but does not have signatures for relinquishment of samples from the courier to the commercial laboratory. The chain of custody does not provide the time or the temperature of the samples when they are relinquished to Hall Environmental. This leaves the chain of custody incomplete.

On the day of the compliance evaluation inspection, it appeared that the wastewater treatment plant had a sanitary sewer overflow (SSO) occur at the headworks. The permittee has not reported any overflows as required by the permit. (Please see attached pictures).

The inspector requested benchsheets of all parameters, including pH and TRC from January 2014 and August 2013. Mr. Martinez stated he would deliver them on Friday, January 2, 2014. On this date (1-2-14) at approximately 1:45 PM, Mr. Martinez called the inspector and stated his plans had changed and he was unable to deliver the requested information. He stated that he would mail them on this day. At the time of writing this inspection report, no information has been received by the permittee as requested.

The NMED files do contain benchsheets from the commercial laboratory for both January 2014 and August 2013. The inspector will review the information provided in the NMED files.

Section C – Operations and Maintenance Evaluation – Overall Rating of “Unsatisfactory”

The permit requires, in Part III.B.3.a, Proper Operation 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 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 that 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

The aeration basin is approximately 12 feet deep. The return activated sludge (RAS) in the aeration basin should be no more than one-fourth to one-third of the depth of the basin (three to four feet). There appeared to be approximately 7-8 feet of RAS in the basin. This is a strong indication that the RAS (return activated sludge) pumping rate should be increased to prevent denitrification from occurring.

The sand filter needs to have the sand replaced with new sand in order to provide the filtering needed. There are weeds growing inside the sand filter as well. The weeds need to be removed.

The sludge beds have not been used for a number of years. The facility is in desperate need of sludge disposal. Currently, the facility has a sludge blanket that is inhibitive of clarification of the effluent. In order to get appropriate effluent, the permittee needs to remove old sludge. The operator stated that he has had a septic hauler come in and remove sludge, but Mr. Lopez, the President of the Co-op felt that this was too expensive (approximately \$400.00). It would be beneficial for the facility to have operational sludge beds that drain back into the headworks to alleviate the sludge within the system.

The facility has no backup power source. There is no alarm system. The electrical box is located outside and accessible to the public. There are no fences enclosing the WWTP, no signage, and no locks. This creates a public safety issue. This is a **repeat** finding from the previous inspection report.

There is only one certified operator. Only well-trained, competent operators can be expected to perform adequate operation, repairs, and preventive maintenance. Wastewater facility maintenance is complex and requires a variety of skills. It is recommended that a second certified operator be staffed at this facility in the event that the primary operator is on vacation or becomes ill.

The operator stated he has had to enter confined space to fix the digester pump. Any operator must acquire the understanding, knowledge, and skills necessary to enter any confined space. The operator should also have available a certificate of training that states he has received the necessary training to safely enter and exit any confined space. Also, an authorized attendant (who has also been trained in the hazards, safety and emergency extraction) must be present at all times during any entry. Mr. Martinez, the operator, stated he has concerns in doing so and has expressed these concerns to Mr. Lopez.

The facility has no written emergency plan in place. At all times, the facility should follow safe operating procedures. Employees must be trained in emergency shut-down, fire control, and spill response procedures, as well as in the use of safety equipment, safe sampling techniques, and safe handling of chemicals and wastes. Occupational Safety and Health Administration (OSHA) provides Right-to-Know laws regarding potentially dangerous chemicals in the workplace. This law specifically requires a written hazard communication program, labeling of chemicals, and the availability of material safety data sheets to employees upon request. No material safety data sheets are kept on site.

The facility has minimal spare parts but does not maintain a written record of spare parts on site.

There are no Standard Operating Procedures (SOPs) for daily operation of laboratory instruments and equipment. It is necessary that the staff is trained and knowledgeable of the requirements of the SOPs in order to perform laboratory analyses that are precise and accurate.

Section D – Self-Monitoring – Overall Rating of “Marginal”

The Permit requires in Part III.5 – Monitoring Procedures:

- a. Monitoring must be conducted according to test procedures approved under 40 CFR 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.*

The permit requires in Part III.5 Additional Monitoring by the Permittee:

If the permittee monitors any pollutant more frequently than required by this permit, using test procedures approved under 40 CFR 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 Self-Monitoring:

Review of the benchsheets from the commercial laboratory for January 2014, shows that the permittee did duplicate samples of TSS and BOD (influent and effluent). The permittee did not report that they did additional samples for the month of January. The permittee did not use the duplicate samples in calculating the monthly concentration.

Date of Sample:	Parameter:	Results:
01/07/2014	TSS (Duplicate – Effluent)	37 mg/L
01/07/2014	BOD (Duplicate –Effluent)	42 mg/L
01/07/2014	TSS – effluent	28 mg/L
01/07/2014	BOD – effluent	38 mg/L
01/07/2014	TSS – influent	120 mg/L
01/07/2014	BOD – Influent	240 mg/L

Date:	Parameter:	Results:	Monthly Average Concentration:	Monthly Average Concentration Reported on DMR:
01/07/14	TSS-duplicate eff.	37 mg/L	$37 \text{ mg/L} + 28 \text{ mg/L} = 65 \text{ mg/L} / 2 = 32.5 \text{ mg/L}$	28 mg/L
01/07/14	TSS-effluent	28 mg/L		
01/07/14	BOD-duplicate eff.	42 mg/L	$42 \text{ mg/L} + 38 \text{ mg/L} = 80 \text{ mg/L} / 2 = 40 \text{ mg/L}$	38 mg/L
01/07/14	BOD-effluent	38 mg/L		

Section E – Flow Measurement – Overall Rating of “Unsatisfactory

Permit requires in Part III, C.6. Flow Measurements:

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.

Findings for Flow Measurement:

The Abiquiu Wastewater Treatment Plant has a 60° V-notch weir. The V-notch weir is placed too close to the staff gauge to get an accurate reading. The V-notch is also thicker than recommended and is not “sharp”.

*To ensure accurate flow discharge measurement of a weir, there are certain general weir design requirements that apply:

1. The weir should consist of a thin plate 1/8 to 1/4 inch (3 to 6mm) thick with a straight edge or a thicker plate with a downstream chamfered edge. The upstream sharp edge prevents the nappe from adhering to the crest. Knife edges should be avoided because they are difficult to maintain. However, the upstream edge of the weir must be sharp with a right angle corners, since rounded edges will decrease the head for a given flow rate.
2. The upstream face of the weir should be smooth and perpendicular to the axis of the channel in both horizontal and vertical directions. The crest of the weir should also be exactly level to insure a uniform depth of flow.
3. The connection of the weir to the channel should be waterproof.
4. The length of the weir crest must be accurately determined, because the percentage of error in measured flow rate will be proportional to the error in determining these dimensions.
5. The weir should be ventilated, if necessary to prevent a vacuum form forming on the underside of the nappe.
6. The height of the weir from the bottom of the channel to the crest should be at least two times the maximum expected head of liquid above the crest. This is necessary to lower the velocity of approach.
7. The approach section should be straight upstream from the weir for a distance of at least 20 times the maximum expected head of liquid, and should be little or no slope.
8. The crest must be set higher than the maximum downstream elevation of the water surface.

9. The device for measuring the head (staff gauge in this case) should be placed upstream at a distance of at least 3 times the maximum expected head on the weir and should be located in a quiet section of the channel away from all disturbances, preferably in a stilling well. Also, the zero point of the head measuring device must be set exactly at the level of the weir crest.
10. The crest of the weir must be kept clean. Fibers, stringy materials, and larger particles tend to cling to the crest and should be removed periodically. The upstream side of the weir should also be periodically purged of accumulated silt and solids.
11. The weir size should be selected only after preliminary studies have determined the expected flow rates in the channel in question.
12. The cross sectional area of the approach of the channel should be at least 8 times that of the nappe of the crest for a distance upstream of 15 to 20 times the head of the crest. This is necessary to minimize the velocity of approach. The approach channel should also permit the liquid to approach the weir in a smooth stream free from turbulence, and the velocity should be uniformly distributed over the channel; this may be accomplished through the use of baffle plates if necessary.
13. If the weir pool is smaller than defined by the above criteria, the velocity of approach may be too high and the head reading too low.
14. When installing a rectangular weir with end contractions, the distance from the side of the weir notch to the side of the channel should be at least twice the maximum expected head on the weir. This is necessary to allow the liquid in the channel a free, unconstrained lateral approach to the weir crest.

**Isco Open Channel Flow Measurement Handbook, Fifth Edition*

It is suggested that the Permittee review the requirements of installation and maintenance, as some corrections need to be made.

Section F – Laboratory – Overall Rating of “Marginal”

The permit requires in Part III.C.5. Monitoring Procedures:

- a. *Monitoring must be conducted according to test procedures approved under 40 CFR 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:

The permittee is using Standard Methods, 4500-Cl G. DPD Colorimetric Method to analyze the TRC. When asked to show the inspector how he is doing this, the operator stated he grabs the sample, and takes it back to the makeshift laboratory. The inspector noted that the operator vigorously agitates the sample by shaking it. Because of this, the operator is accelerating the reduction of chlorine from the sample. This does not follow the procedure of 4500-Cl G. DPD Colorimetric Method.

There is no indication provided on the TRC benchsheets that calibration is being performed with either chlorine or potassium permanganate solutions.

The 40 *Code of Federal Regulations (CFR)* Section 122.41(e) (conditions applicable to all permits), requires adequate laboratory and process controls, including appropriate QA procedures. Each permittee's laboratory must have a QA/QC program. The permittee must document the QA program in a written QA/QC manual and it should be made available to all personnel responsible for sample analyses. The manual must clearly identify the individuals involved in the QA program and document their responsibilities. The laboratory's standard operating procedures must meet user requirements in terms of specificity, completeness, precision, accuracy, representativeness, and comparability of the required testing procedures. The permittee does not have a written QA program established.

Section G – Effluent/Receiving Waters Observations – Overall Rating of “Unsatisfactory”

The permit requires in Part I, Floating Solids, Visible Foam and/or Oils:

There shall be no discharge of floating solids or visible foam in other than trace amounts. There shall be no discharge of visible films of oil, globules of oil, grease or solids in or on the water, or coating on stream banks. (See picture #13)

Review of discharge monitoring reports along with submitted non-compliance forms from June 2013 through the present reveals the following:

Date:	Outfall	Parameter	Excursion	Permit Limit
06/2013	001	BOD (30-day avg.)	40 mg/L	30 mg/L
06/2013	001	E. coli (30-day avg.)	>24,196	47 cfu/100 mL
06/2013	001	E. coli (daily max)	>24,196	88 cfu/100 mL

06/2013	001	BOD Percent Removal	<84.0%	>85%
07/2013	001	TRC	43 ug/L	3 ug/L
07/2013	001	E. coli (30-day avg.)	579.4	47 cfu/100 mL
07/2013	001	E.coli (daily max)	579.4	88 cfu/100 mL
08/2013	001	TRC	40 ug/L	3 ug/L
08/2013	001	E. coli (30-day avg.)	410.6	47 cfu/100 mL
08/2013	001	E. coli (daily max)	410.6	88 cfu/100 mL
10/2013	001	TRC	70 ug/L	3 ug/L
11/2013	001	E. coli (30-day avg.)	>2419.6	47 cfu/100 mL
11/2013	001	E. coli (daily max)	>2419.6	88 cfu/100 mL
01/2014	001	BOD (30-day loading av	14.58 lbs/d	10 lbs/d
01/2014	001	BOD (30-day avg.)	38 mg/L	30 mg/L
01/2014	001	TRC	40 ug/L	3 ug/L
01/2014	001	E. coli (30-day avg.)	106.7	47 cfu/100 mL
01/2014	001	E.coli (7-day avg.)	106.7	88 cfu/100 mL
01/2014	001	BOD percent removal	<84.16%	>85%
01/2014	001	TSS percent removal	<76.67%	>85%
04/2014	001	TRC	100 ug/L	3 ug/L
04/12/14	001	TRC	70 ug/L	3 ug/L
05/2014	001	TRC	190 ug/L	3 ug/L
05/2014	001	E.coli (30-day avg.)	142.1	47cfu/100 mL
05/2014	001	E. coli (7-day avg.)	142.1	88 cfu/100 mL
12/23/14	001	TRC	140 ug/L	3 ug/L
07/2014	001	TRC	43 ug/L	3 ug/L
08/2014	001	TRC	40 ug/L	3 ug/L

Section H – Sludge Disposal – Overall Rating of “Unsatisfactory”

PART 503—STANDARDS FOR THE USE OR DISPOSAL OF SEWAGE SLUDGE

Subpart A—General Provisions

§ 503.1 Purpose and applicability.

(a) Purpose.

(1) This part establishes standards, which consist of general requirements, pollutant limits, management practices, and operational standards, for the final use or disposal of sewage sludge generated during the treatment of domestic sewage in a treatment works. Standards are included in this part for sewage sludge applied to the land, placed on a surface disposal site, or fired in a sewage sludge incinerator. Also included in this part are pathogen and alternative vector attraction reduction requirements for sewage sludge applied to the land or placed on a surface disposal site.

(2) In addition, the standards in this part include the frequency of monitoring and recordkeeping requirements when sewage sludge is applied to the land, placed on a

surface disposal site, or fired in a sewage sludge incinerator. Also included in this part are reporting requirements for Class I sludge management facilities, publicly owned treatment works (POTWs) with a design flow rate equal to or greater than one million gallons per day, and POTWs that serve 10,000 people or more.

(b) Applicability.

(1) ***This part applies to any person who prepares sewage sludge***, applies sewage sludge to the land, or fires sewage sludge in a sewage sludge incinerator and to the owner/operator of a surface disposal site.

(2) This part applies to sewage sludge applied to the land, placed on a surface disposal site, or fired in a sewage sludge incinerator.

(3) This part applies to the exit gas from a sewage sludge incinerator stack.

(4) This part applies to land where sewage sludge is applied, to a surface disposal site, and to a sewage sludge incinerator.

Definitions:

(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 Disposal – **THIS IS A REPEAT FINDING.**

This facility has failed to follow general requirements, analyses, management practices, and operational standards for their sludge disposal.

The sludge is in a state of storage as defined under (y) definitions.

**NMED/SWQB
Official Photograph Log
Photo # 1**

Photographer: Daniel Valenta	Date: 12/30/2014	Time: 1025 Hours
City/County: Abiquiu / Rio Arriba		State: New Mexico
Location: Abiquiu Wastewater Treatment Facility		
Subject: Overview of Abiquiu Wastewater Package Plant		



**NMED/SWQB
Official Photograph Log
Photo # 2**

Photographer: Daniel Valenta	Date: 12/30/2014	Time: 1030 hours
City/County: Abiquiu / Rio Arriba		State: New Mexico
Location: Abiquiu Wastewater Treatment Facility		
Subject: Apparent SSO at headworks.		



**NMED/SWQB
Official Photograph Log
Photo #3**

Photographer: Daniel Valenta	Date: 12/30/2014	Time: 1031 Hours
City/County: Abiquiu / Rio Arriba		State: New Mexico
Location: Abiquiu Wastewater Treatment Facility		
Subject: Close up view of influent pipe and barscreen.		



**NMED/SWQB
Official Photograph Log
Photo #4**

Photographer: Daniel Valenta	Date: 12/30/2014	Time: 1045 Hours
City/County: Abiquiu / Rio Arriba		State: New Mexico
Location: Abiquiu Wastewater Treatment Facility		
Subject: Aeration basin – Coloration is a deep brown color indicating wasting needs to be done.		



**NMED/SWQB
Official Photograph Log
Photo #5**

Photographer: Daniel Valenta	Date: 12/30/2014	Time: 1039 Hours
City/County: Abiquiu / Rio Arriba		State: New Mexico
Location: Abiquiu Wastewater Treatment Facility		
Subject: Clarifier with chlorination tablets in the channel (May be placed in this area to add detention time).		



**NMED/SWQB
Official Photograph Log
Photo #6**

Photographer: Daniel Valenta	Date: 12/30/2014	Time: 1040 Hours
City/County: Abiquiu / Rio Arriba		State: New Mexico
Location: Abiquiu Wastewater Treatment Facility		
Subject: Chlorine contact chamber.		



**NMED/SWQB
Official Photograph Log
Photo #7**

Photographer: Daniel Valenta	Date: 12/30/2014	Time: 1042 Hours
City/County: Abiquiu / Rio Arriba		State: New Mexico
Location: Abiquiu Wastewater Treatment Facility		
Subject: Staff gage, V-notch weir and de-chlorination box.		



**NMED/SWQB
Official Photograph Log
Photo #8**

Photographer: Daniel Valenta	Date: 12/30/2014	Time: 1048 Hours
City/County: Abiquiu / Rio Arriba		State: New Mexico
Location: Abiquiu Wastewater Treatment Facility		
Subject: Sand Filter.		



**NMED/SWQB
Official Photograph Log
Photo #9**

Photographer: Daniel Valenta	Date: 12/30/2014	Time: 1048 Hours
City/County: Abiquiu / Rio Arriba		State: New Mexico
Location: Abiquiu Wastewater Treatment Facility		
Subject: Sludge Drying Beds.		



**NMED/SWQB
Official Photograph Log
Photo #10**

Photographer: Daniel Valenta	Date: 12/30/2014	Time: 1050 Hours
City/County: Abiquiu / Rio Arriba		State: New Mexico
Location: Abiquiu Wastewater Treatment Facility		
Subject: Sludge – placed on bare ground.		



**NMED/SWQB
Official Photograph Log
Photo #11**

Photographer: Daniel Valenta	Date: 12/30/2014	Time: 1103 Hours
City/County: Abiquiu / Rio Arriba		State: New Mexico
Location: Abiquiu Wastewater Treatment Facility		
Subject: Discharge pipe at Rio Chama.		



**NMED/SWQB
Official Photograph Log
Photo #12**

Photographer: Daniel Valenta	Date: 12/30/2014	Time: 1103 Hours
City/County: Abiquiu / Rio Arriba		State: New Mexico
Location: Abiquiu Wastewater Treatment Facility		
Subject: Effluent discharge into Rio Chama. Appears cloudy.		



**NMED/SWQB
Official Photograph Log
Photo #13**

Photographer: Daniel Valenta	Date: 12/30/2014	Time: 1106 Hours
City/County: Abiquiu / Rio Arriba		State: New Mexico
Location: Abiquiu Wastewater Treatment Facility		
Subject: Downstream from effluent pipe. Noticeable floatable solids.		

