



NEW MEXICO  
ENVIRONMENT DEPARTMENT



*Surface Water Quality Bureau*

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DAVE MARTIN  
Secretary

RAJ SOLOMON, P.E.  
Deputy Secretary

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Certified Mail - Return Receipt Requested

May 28, 2011

Mr. Archie J. Vigil, Mayor  
299 4<sup>th</sup> Street  
Post Office Box 794  
Chama, New Mexico 87520

RE: Minor Municipal, SIC 4952, NPDES Compliance Evaluation Inspection, Chama Wastewater Treatment Plant (WWTP), NPDES Permit No. NM0027731, April 28, 2011

Dear Mayor Vigil:

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

Introduction, treatment scheme, and problems noted during this inspection are discussed in the Further Explanations section of the inspection report. The main problems were found in the area of Records/Reports, Operations/Maintenance, Self-Monitoring, Flow Measurements and Receiving/Effluent. You are encouraged to review the inspection report, required to correct any problems noted during the inspection, and to modify your operational and/or administrative procedures, as appropriate. Further, you are encouraged to notify in writing, both the USEPA and NMED regarding modifications and compliance schedules at the addresses below:

Diana McDonald  
US Environmental Protection Agency, Region VI  
Enforcement Branch (6EN-WM)  
Suite 1200  
1445 Ross Avenue  
Dallas, Texas 75202-2733

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

If you have any questions about this inspection report, please contact me at (505) 827-1041 or [sandra.gabaldon@state.nm.us](mailto:sandra.gabaldon@state.nm.us)

Sincerely,

*/s/ Sandra Gabaldón*

Sandra Gabaldón  
Surface Water Quality Bureau

Cc: Marcia Gail Adams, EPA, Enforcement Section (6EN-AS) by e-mail  
Larry Giglio, EPA (6EN-P) by e-mail  
Carol Peters-Wagnon, EPA (6EN-WM) by e-mail  
Diana McDonald, EPA (6EN-WM) by e-mail  
Samual Tates, EPA, (6W-AS) by e-mail  
Robert Italiano, Manager, NMED District II Manager (Santa Fe) 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   7   7   3   1   11   12   1   1   0   4   2   8   17   18   C   19   S   20   1					
Remarks					
M   I   N   O   R   M   U   N   I   C   I   P   A   L					
Inspection Work Days	Facility Evaluation Rating	BI	QA	Reserved	
67       69	70   2	71   N	72   N	73	74   75               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) CHAMA WWTP – North on Hwy 94. Turn left on Hwy 64/84, Left on dirt road between car wash and highway maintenance yard. Follow dirt road to WWTP.	Entry Time /Date 1000 hours / 04-28-2011	Permit Effective Date July 1, 2007
	Exit Time/Date 1300 hours / 04-28-2011	Permit Expiration Date September 30, 2010
Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s) Levi Sandoval, WWTP Operator, (575) 756-2184	Other Facility Data	
Name, Address of Responsible Official/Title/Phone and Fax Number Mayor Archie Vigil (575) 756-2184 Post Office Box 794 Chama, NM 87520	Contacted Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> *	SIC 4952 36°59'39.07" N 106°35'15.85" W

#### Section C: Areas Evaluated During Inspection

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

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

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

1. PLEASE SEE CHECKLIST AND FURTHER EXPLANATIONS

Name(s) and Signature(s) of Inspector(s) /s/ Sandra Gabaldon SANDRA GABALDON	Agency/Office/Telephone/Fax NMED/SWQB 505 827-1041/505-827-0160	Date May 28, 2011
Signature of Management QA Reviewer /s/ Richard Powell Richard Powell	Agency/Office/Phone and Fax Numbers 505-827-2798	Date MAY 28, 2011

Village of Chama Wastewater Treatment Plant

PERMIT NO. NM0027731

SECTION A - PERMIT VERIFICATION – PERMIT EXPIRED 09/2010, HOWEVER CONTINUED BY 40 CFR 122.6

PERMIT SATISFACTORILY ADDRESSES OBSERVATIONS DETAILS:  S  M  U  NA (FURTHER EXPLANATION ATTACHED NO)

- 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. DETAILS:  S  M  U  NA (FURTHER EXPLANATION ATTACHED YES)

- 1. ANALYTICAL RESULTS CONSISTENT WITH DATA REPORTED ON DMRs.  Y  N  NA
- 2. SAMPLING AND ANALYSES DATA ADEQUATE AND INCLUDE.  S  M  U  NA
  - a) DATES, TIME(S) AND LOCATION(S) OF SAMPLING  Y  N  NA
  - b) NAME OF INDIVIDUAL PERFORMING SAMPLING  Y  N  NA
  - c) ANALYTICAL METHODS AND TECHNIQUES.  Y  N  NA
  - d) RESULTS OF ANALYSES AND CALIBRATIONS.  Y  N  NA
  - e) DATES AND TIMES OF ANALYSES.  Y  N  NA
  - f) NAME OF PERSON(S) PERFORMING ANALYSES.  Y  N  NA
- 3. LABORATORY EQUIPMENT CALIBRATION AND MAINTENANCE RECORDS ADEQUATE.  S  M  U  NA
- 4. PLANT RECORDS INCLUDE SCHEDULES, DATES OF EQUIPMENT MAINTENANCE AND REPAIR.  S  M  U  NA
- 5. EFFLUENT LOADINGS CALCULATED USING DAILY EFFLUENT FLOW AND DAILY ANALYTICAL DATA.  Y  N  NA

SECTION C - OPERATIONS AND MAINTENANCE

TREATMENT FACILITY PROPERLY OPERATED AND MAINTAINED. DETAILS:  S  M  U  NA (FURTHER EXPLANATION ATTACHED YES)

- 1. TREATMENT UNITS PROPERLY OPERATED.  S  M  U  NA
- 2. TREATMENT UNITS PROPERLY MAINTAINED.  S  M  U  NA
- 3. STANDBY POWER OR OTHER EQUIVALENT PROVIDED.  S  M  U  NA
- 4. ADEQUATE ALARM SYSTEM FOR POWER OR EQUIPMENT FAILURES AVAILABLE.  S  M  U  NA
- 5. ALL NEEDED TREATMENT UNITS IN SERVICE  S  M  U  NA
- 6. ADEQUATE NUMBER OF QUALIFIED OPERATORS PROVIDED.  S  M  U  NA
- 7. SPARE PARTS AND SUPPLIES INVENTORY MAINTAINED.  S  M  U  NA
- 8. OPERATION AND MAINTENANCE MANUAL AVAILABLE.  Y  N  NA  
 STANDARD OPERATING PROCEDURES AND SCHEDULES ESTABLISHED.  Y  N  NA  
 PROCEDURES FOR EMERGENCY TREATMENT CONTROL ESTABLISHED.  Y  N  NA

Village of Chama Wastewater Treatment Plant

PERMIT NO. NM0027731

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 no).  
 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. Bench sheets missing for E. coli and Fecal Coliform  Y  N  NA

5. SAMPLING AND ANALYSES PERFORMED AT FREQUENCY SPECIFIED IN PERMIT. E. coli not taken 2x monthly as required.  Y  N  NA

6. SAMPLE COLLECTION PROCEDURES ADEQUATE  Y  N  NA

a) SAMPLES REFRIGERATED DURING COMPOSITING.  Y  N  NA

b) PROPER PRESERVATION TECHNIQUES USED.  Y  N  NA

c) CONTAINERS AND SAMPLE HOLDING TIMES CONFORM TO 40 CFR 136.3. pH and chlorine exceed holding time of 15 minutes.  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 90° V-notch Weir

2. FLOW MEASURED AT EACH OUTFALL AS REQUIRED.  Y  N  NA

3. SECONDARY INSTRUMENTS (TOTALIZERS, RECORDERS, ETC.) PROPERLY OPERATED AND MAINTAINED.  Y  N  NA  
 There were spider webs surrounding the ultrasonic flow meter which could cause false readings.

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 NO)  
 DETAILS:

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

**SECTION F - LABORATORY (CONT'D)**

2. IF ALTERNATIVE ANALYTICAL PROCEDURES ARE USED, PROPER APPROVAL HAS BEEN OBTAINED  Y  N  NA

3. SATISFACTORY CALIBRATION AND MAINTENANCE OF INSTRUMENTS AND EQUIPMENT.  S  M  U  NA

4. QUALITY CONTROL PROCEDURES ADEQUATE.  S  M  U  NA

5. DUPLICATE SAMPLES ARE ANALYZED. 100 % OF THE TIME. FOR ALL PARAMETERS EXCEPT pH AND CHLORINE  Y  N  NA

6. SPIKED SAMPLES ARE ANALYZED. 100 % OF THE TIME.  Y  N  NA

7. COMMERCIAL LABORATORY USED.  Y  N  NA

LAB NAME SUMMIT ANALYTICAL LABORATORIES HALL ENVIRONMENTAL  
 LAB ADDRESS 3310 Win Street 4901 Hawkins NE  
 PARAMETERS PERFORMED Al, BOD, NH3, TP, TSS AL, BOD, TSS, pH, TP, NH3

**SECTION G - EFFLUENT/RECEIVING WATERS OBSERVATIONS.**  S  M  U  NA (FURTHER EXPLANATION ATTACHED No).

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

RECEIVING WATER OBSERVATIONS The effluent was green in color and had foaming. The plant believes that a Laundromat may be adding surfactants to the collection system.

**SECTION H - SLUDGE DISPOSAL**

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

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: agricultural (e.g., FOREST, AGRICULTURAL, PUBLIC CONTACT SITE)

**SECTION I - SAMPLING INSPECTION PROCEDURES** (FURTHER EXPLANATION ATTACHED \_\_).

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 Chama Wastewater Treatment Plant  
Compliance Evaluation Inspection  
NPDES Permit No. NM 0027731  
April 28, 2011

### **Introduction**

A compliance evaluation inspection (CEI) was conducted at the Village of Chama Wastewater Treatment Plant (WWTP) on April 28, 2011, by Sandra Gabaldón of the New Mexico Environment Department (NMED), Surface Water Quality Bureau (SWQB). The inspection was conducted by NMED for the U.S. Environmental Protection Agency (USEPA), Region 6, under the National Pollutant Discharge Elimination System (NPDES) permit program. The enclosed inspection report is based on verbal information provided by the permittee's representative, Mr. Levi Sandoval, observations made by the NMED inspector, and a review of records maintained by the permittee and/or NMED. Findings of the inspection are detailed on the attached EPA form 3560-3 and in the narrative further explanations section of the report.

The Village of Chama WWTP is classified as a minor municipal discharger with a design flow of 0.3 million gallons a day (MGD) and is assigned NPDES permit number NM0027731. The discharge from the WWTP enters the Rio Chamita, a tributary of the Rio Chama, in segment number 20.6.4.119 of the Rio Grande Basin. The Rio Chamita in segment 20.6.4.119 has a TMDL for ammonia, total phosphorus, fecal coliform, temp (1999), and aluminum. The designated uses for this segment include: domestic water supply, fish culture, high quality coldwater aquatic life, irrigation, livestock watering wildlife habitat and primary contact.

Ms. Gabaldón arrived at the facility and contacted the Village of Chama Clerk's office. Mr. Levi Sandoval met with Ms. Gabaldón at the facility at 1000 hours on April 28, 2011. Ms. Gabaldón presented her credentials and explained the purpose of the inspection. Ms. Gabaldón requested an exit conference with Mayor Vigil, however, Mayor Vigil was unavailable this day and a telephone exit conference was then scheduled for May 2, 2011, at 1430 hours to discuss the preliminary findings of the inspection.

### **Treatment Scheme**

Influent enters the plant through a grinder pump that lifts the influent through a ¾ inch bar screen. It then enters a splitter box which is capable of splitting the flow between two aerated lagoons. The influent flow is currently being sent through the aerated lagoons in series as to provide retention time as well as dissolved oxygen levels at their maximum. The total detention time in each pond is approximately 13 days according to Mr. Sandoval. The flow then enters a serpentine chlorine contact chamber. Disinfection is achieved by chlorine injection followed by dechlorination with sulfur dioxide. The effluent then exits through a 90° weir into an encased 10" pipe to the Rio Chamita.

### **Sludge**

Sludge has never been removed from the lagoons. Mr. Sandoval stated that he periodically checks the sludge depth with a sludge judge and the approximate depth of the sludge in the lagoons at this time is two feet.

Village of Chama Wastewater Treatment Plant  
Compliance Evaluation Inspection  
NPDES Permit No. NM 0027731  
April 28, 2011

**Further Explanations**

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

The permit requires in Part III – Record Contents:

*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 measurement;*
- 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.*

The permit requires in Part III.C.6 – Monitoring Procedures:

- a. The permittee shall calibrate and perform maintenance procedures on all monitoring and analytical instruments at intervals frequent enough to insure accuracy of measurements and shall maintain appropriate records of such activities.*

The permit requires in part I.C – Compliance Schedules:

*The permittee shall submit quarterly progress reports, both to EPA and NMED, in accordance with the following schedule: January 1, April 1, July 1, and October 1.*

*The permittee shall comply with the following schedule of activities for attainment of state water quality standards-based final effluent limitations for Aluminum.*

- a. Determine exceedance cause(s);*
- b. Develop control options, if needed;*
- c. Evaluate and select control mechanisms;*
- d. Implement corrective action; and*
- e. Attain final effluent limitations no later than three (3) years from the permit effective date.*

**Findings for Section B – Recordkeeping and Reporting:**

The inspector reviewed bench sheets from July 2010 and November 2010 to verify that the bench sheets provided the necessary record contents from Part III, Record Contents. The permittee uses Summit Environmental Technologies, Inc., as well as New Mexico Water Testing Lab., Inc to do analysis of Aluminum, Phosphorus, Ammonia, Biochemical Oxygen Demand (BOD), Fecal Coliform, Total Suspended Solids (TSS), and E.coli, respectively. The contract laboratories fail to provide the exact sampling

location and only state “effluent”. The permittee should request that the laboratory provide the exact sampling location be provided on each bench sheet as required to satisfy Part III, Records Content.

The permittee provided bench sheets for pH and chlorine. The permittee has failed to maintain records with required record content. The permittee does not provide time of sampling, time of analysis, or the methodology being utilized.

The permittee has continued to exceed Aluminum limitations. In November 2010, the permittee had a 30-day concentration of 330 ug/L (limit is 87 ug/L) and a daily maximum of 160 ug/L (58 ug/L). The permittee has not provided EPA or NMED with reports specifically addressing attainment of final effluent limits. The permittee should have attained these effluent limits by September 2010.

Discharge Monitoring Reports (DMRs) from August 2010 and November 2011 were reviewed to verify calculations and DMR reporting.

Comparison was made from DMR results from August 2010 with facility records of August 2010 to verify that the permittee is accurately reporting their values.

Parameter	30-day Average Loading		7-Day Average Loading		30-day Ave Concentration		7-day Ave Concentration	
	DMR	Check	DMR	Check	DMR	Check	DMR	Check
BOD	33	<b>44.49</b>	44	<b>63.85</b>	33	33✓	44	44✓
TSS	64.1	<b>85.16</b>	78.1	<b>113.19</b>	64	64✓	78	78✓
Nitrogen Ammonia	9.8	<b>12.83</b> lbs/d	8.5 (DailyMx)	<b>15.96</b>	9.75	9.75✓	11 (DailyMx)	11✓ (DailyMx)
Phosphorus	2.8	<b>3.44</b>	3.4	<b>3.77</b>	2.77	<b>2.72</b>	3.4 (DailyMx)	<b>3.3</b>
*Aluminum	<b>0.046</b>		<b>0.069</b>		<b>46</b>		<b>69</b> (DailyMx)	
<b>*Only one bench sheet provided for Aluminum. See calculation below.</b>								

**BOD CALCULATION:**

Sample Date:	Daily Flow (MGD)	BOD (mg/l)	Calculated Daily Load
08/03/10	.174	44.0	(.174)(44.0)(8.34) = 63.85
08/17/10	.137	22.0	(.137)(22.0)(8.34) = 25.13
<b>Calculated Monthly Loading Average:</b>	(63.85 lbs/d + 25.13 lbs/d) / 2 = 44.49 lbs/d		
<b>Reported on DMR</b>	<b>33 lbs/d</b>		

**TSS CALCULATION:**

Sample Date:	Daily Flow (MGD)	TSS (mg/l)	Calculated Daily Load
08/03/10	.174	78	(.174)(78.0)(8.34) =113.19
08/17/10	.137	50	(.137)(50.0)(8.34) = 57.13
<b>Calculated Monthly Loading Average:</b>	(113.19 lbs/d + 57.13 lbs/d) / 2 = 85.16		
<b>Reported on DMR</b>	<b>64.1 lbs/day</b>		

**AMMONIA CALCULATION:**

Sample Date:	Daily Flow (MGD)	Ammonia (mg/l)	Calculated Daily Load
08/03/10	.174	11	$(.174)(11.0)(8.34) = 15.96$
08/17/10	.137	8.5	$(.137)(8.5)(8.34) = 9.71$
<b>Calculated Monthly Loading Average:</b>	$(15.96 \text{ lbs/d} + 9.71 \text{ lbs/d}) / 2 = 12.83 \text{ lbs/d}$		
<b>Reported on DMR</b>	<b>9.8 lbs/d</b>		

**PHOSPHORUS CALCULATION:**

Sample Date:	Daily Flow (MGD)	Phosphorus (mg/l)	Calculated Daily Load
08/03/10	.174	2.14	$(.174)(2.14)(8.34) = 3.11$
08/17/10	.137	3.3	$(.137)(3.30)(8.34) = 3.77$
<b>Calculated Monthly Loading Average:</b>	$(3.11 \text{ lbs/d} + 3.77 \text{ lbs/d}) / 2 = 3.44 \text{ lbs/d}$		
<b>Reported on DMR</b>	<b>2.8 lbs/d</b>		

**ALUMINUM CALCULATION:**

Sample Date:	Daily Flow (MGD)	Aluminum (ug/L)	Calculated Daily Load
08/17/10	.137	<b>230 ug/L</b>	$(.137)(0.23 \text{ mg/L})(8.34) = 0.26 \text{ lbs/d}$
One bench sheet provided from SUMMIT Analytical Laboratories. No other samples available. Permittee required to take two samples monthly.			
<b>Calculated Monthly Average:</b>	0.26 lbs/d		
<b>Reported on DMR</b>	<b>0.046 lbs/day</b>		

✓ = In agreement with reported values on DMR.

The permittee does not appear to be doing the quantity or loading calculations correctly on their DMRs. The permittee should review all DMRs and re-submit those that are incorrect.

**Section C – Operations and Maintenance: Overall rating of “Unsatisfactory”**

Permit requirements, Part III. B. 3: Proper Operation and Maintenance

*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 operation is necessary to achieve compliance with the conditions of this permit.*

**Findings** for Operations and Maintenance:

Diffuse bubble aeration provides the oxygen needed in the lagoons. However, there are areas in the lagoons that do not receive aeration, which may cause septic and/or anoxic conditions to exist in the lagoons.

The facility has utilized of a recirculation pump to send influent back to the eastern pond for further treatment rather than allowing it to go directly to the chlorine contact chamber. The recirculation pump was out of order during this inspection. The operator said that this pump would be fixed in the next few days.

The chlorine contact chamber appears green in color. The operator stated that the contact chamber is cleaned periodically to remove any sludge that may accumulate in the bottom of the chamber. Cleaning may need to be increased to provide efficient chlorination / dechlorination.

The facility has no alarm system on site. This is a previous finding and has been discussed extensively with the Village of Chama.

**Section E – Flow Measurements: Overall rating of “Unsatisfactory”**

The permit requires in Part III. C. 6: Flow Measurement

*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.*

The operator had no calibration records available during this inspection.

There are no calibration checks performed to ensure that a maximum deviation of less than 10% from the true discharge rates occurs.

**Section F – Laboratory: Overall rating of “Marginal”**

Part III.C.5 – Monitoring Procedures, 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.*

- 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 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 monitors chlorine and pH. However, the permittee has reported pH values taken from contract laboratory bench sheets. There is a maximum holding time for pH of fifteen minutes. Because the maximum holding time has been exceeded for pH, these values are invalid for reporting purposes.

The permittee had available their own pH and chlorine bench sheets. However, there is no indication on the bench sheets of calibration of the pH meter. The permittee is required to perform a two point calibration and a check with a third buffer. The permittee has the required buffers, however, no documentation to support calibration is being done.

The permittee does not have an adequate analytical quality control program in place for the parameters that are done onsite (pH and chlorine). The contract laboratories have provided bench sheets that detail their quality control program, which is adequate. In a laboratory quality control program, precision is determined by the analysis of actual samples in duplicate.

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

Photographer: Sandra Gabaldón	Date: 04/28/2011	Time: 1120 Hours
City/County: Chama / Rio Arriba		State: New Mexico
Location: Chama Wastewater Treatment Plant		
Subject: Discharge pipe into Rio Chamita from Chama WWTP.		

