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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**

April 29, 2011

Ms. Virginia Vigil  
Board Chairwoman  
341 Caja del Rio Road  
Santa Fe, NM 87507

**Re: Major Industrial, SIC 4941, NPDES Compliance Evaluation Inspection, Buckman Direct Diversion Project, NM0030848, April 14, 2011**

Dear Ms. Vigil,

Enclosed, please find a copy of the report 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.

Findings are based on the inspector's observances in regards to specific requirements of the NPDES permit. The Buckman Direct Diversion Project received an overall evaluation rating of "3" on a scale of 1 to 5. Problems were found in the area of Recordkeeping and Reporting and Laboratory. Please refer to the Further Explanations section of the report for more detail.

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 USEPA (Diana McDonald, USEPA (6EN-WT), 1445 Ross Ave, Dallas, Texas, 75202) and NMED (at above address) regarding modifications and compliance schedules.

I wish to thank you for the cooperation extended to the NMED while at the Buckman Direct Diversion Project. If you have any questions about this inspection report, please contact me at (505) 222-9587 or [sarah.holcomb@state.nm.us](mailto:sarah.holcomb@state.nm.us).

Sincerely,

Sarah Holcomb  
Environmental Scientist/Specialist  
Surface Water Quality Bureau

Cc: Marcia Gail Adams, USEPA (6EN-AS), by e-mail  
Samuel Tate, USEPA (6EN-AS), by e-mail  
Carol Peters-Wagnon, USEPA (6EN-AS), by e-mail  
Diana McDonald, USEPA (6EN-AS), by e-mail  
Larry Giglio, USEPA (6WQ-P), by e-mail  
NMED District II, by email



### 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	8	4	8	11	12	1	1	0	4	1	4	17	18	C	19	S	20	1
Remarks																												
M A J O R I N D U S T R I A L																												
Inspection Work Days						Facility Evaluation Rating						BI		QA		-----Reserved-----												
67						70						71		72		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)		Entry Time /Date	Permit Effective Date
BUCKMAN DIRECT DIVERSION – FROM I-25, TAKE THE HWY 599 EXIT HEADED NORTH. CONTINUE ON 599 UNTIL YOU SEE THE EXIT FOR COUNTY ROAD 62. TURN LEFT AND THEN TURN LEFT ON THE 599 FRONTAGE ROAD. TURN RIGHT ON CAJA DEL RIO ROAD AND FOLLOW UNTIL YOU SEE THE SIGN FOR THE BDD. TURN LEFT INTO THE FACILITY.		1045 HOURS/4-14-2011	12-1-2008
		Exit Time/Date	Permit Expiration Date
		1530 HOURS/4-14-2011	11-30-2013
Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s)		Other Facility Data	
MR. ROBERT MULVEY, FACILITIES MANAGER (505) 955-4502 MS. ERIKA SCHWENDER, BDD REGULATORY COMPLIANCE OFFICER (505) 955-4504		LAT N. 35° 50.174" LONG W. -106°09.732"	
Name, Address of Responsible Official/Title/Phone and Fax Number		SIC 4941	
MS. VIRGINIA VIGIL, BOARD CHAIRWOMAN 341 CAJA DEL RIO ROAD, SANTA FE, NM 87507		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)

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

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

- INSPECTORS ARRIVED AT THE FACILITY AT 1045 HOURS ON APRIL 14, 2011. THEY PRESENTED CREDENTIALS AND EXPLAINED THE PURPOSE OF THE INSPECTION IN THE ENTRANCE INTERVIEW WITH MR. ROBERT MULVEY, FACILITIES MANAGER, AND MS. ERIKA SCHWENDER, COMPLIANCE OFFICER. THE INSPECTOR GAVE PRELIMINARY FINDINGS IN THE EXIT INTERVIEW WITH MS. SCHWENDER AT THE FACILITY FROM APPROXIMATELY 1515-1530 HOURS ON APRIL 14, 2011.
- PLEASE SEE REPORT FOR FURTHER DETAILS.

Name(s) and Signature(s) of Inspector(s)	Agency/Office/Telephone/Fax	Date
SARAH HOLCOMB	NMED/SWQB 222-9587 FAX 222-9510	
Signature of Management QA Reviewer	Agency/Office/Phone and Fax Numbers	Date
RICHARD POWELL	NMED/SWQB 827-2798 FAX 827-0160	

## SECTION A - PERMIT VERIFICATION

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

1. CORRECT NAME AND MAILING ADDRESS OF PERMITTEE

     NA

2. NOTIFICATION GIVEN TO EPA/STATE OF NEW DIFFERENT OR INCREASED DISCHARGES

     NA

3. NUMBER AND LOCATION OF DISCHARGE POINTS AS DESCRIBED IN PERMIT

     NA

4. ALL DISCHARGES ARE PERMITTED

     NA

## SECTION B - RECORDKEEPING AND REPORTING EVALUATION

RECORDS AND REPORTS MAINTAINED AS REQUIRED BY PERMIT.  
DETAILS:     NA (FURTHER EXPLANATION ATTACHED YES)

1. ANALYTICAL RESULTS CONSISTENT WITH DATA REPORTED ON DMRs.

     NA

2. SAMPLING AND ANALYSES DATA ADEQUATE AND INCLUDE.

     NA

a) DATES, TIME(S) AND LOCATION(S) OF SAMPLING

     NA

b) NAME OF INDIVIDUAL PERFORMING SAMPLING

     NA

c) ANALYTICAL METHODS AND TECHNIQUES.

     NA

d) RESULTS OF ANALYSES AND CALIBRATIONS.

     NA

e) DATES AND TIMES OF ANALYSES.

     NA

f) NAME OF PERSON(S) PERFORMING ANALYSES.

     NA

3. LABORATORY EQUIPMENT CALIBRATION AND MAINTENANCE RECORDS ADEQUATE.

     NA

4. PLANT RECORDS INCLUDE SCHEDULES, DATES OF EQUIPMENT MAINTENANCE AND REPAIR.

     NA

5. EFFLUENT LOADINGS CALCULATED USING DAILY EFFLUENT FLOW AND DAILY ANALYTICAL DATA.

     NA

## SECTION C - OPERATIONS AND MAINTENANCE

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

1. TREATMENT UNITS PROPERLY OPERATED.

      NA

2. TREATMENT UNITS PROPERLY MAINTAINED.

      NA

3. STANDBY POWER OR OTHER EQUIVALENT PROVIDED.

      NA

4. ADEQUATE ALARM SYSTEM FOR POWER OR EQUIPMENT FAILURES AVAILABLE.

      NA

5. ALL NEEDED TREATMENT UNITS IN SERVICE

      NA

6. ADEQUATE NUMBER OF QUALIFIED OPERATORS PROVIDED.

      NA

7. SPARE PARTS AND SUPPLIES INVENTORY MAINTAINED.

      NA

8. OPERATION AND MAINTENANCE MANUAL AVAILABLE.

     NA

STANDARD OPERATING PROCEDURES AND SCHEDULES ESTABLISHED.

     NA

PROCEDURES FOR EMERGENCY TREATMENT CONTROL ESTABLISHED.

     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.  Y  N  NA
5. SAMPLING AND ANALYSES PERFORMED AT FREQUENCY SPECIFIED IN PERMIT.  Y  N  NA
6. SAMPLE COLLECTION PROCEDURES ADEQUATE  Y  N  NA
- a) SAMPLES REFRIGERATED DURING COMPOSITING.  Y  N  NA
- b) PROPER PRESERVATION TECHNIQUES USED.  Y  N  NA
- c) CONTAINERS AND SAMPLE HOLDING TIMES CONFORM TO 40 CFR 136.3.  Y  N  NA
7. IF MONITORING AND ANALYSES ARE PERFORMED MORE OFTEN THAN REQUIRED BY PERMIT, ARE THE RESULTS REPORTED IN PERMITTEE'S SELF-MONITORING REPORT?  Y  N  NA

## SECTION E - FLOW MEASUREMENT

PERMITTEE FLOW MEASUREMENT MEETS PERMIT REQUIREMENTS.  S  M  U  NA (FURTHER EXPLANATION ATTACHED NO).  
 DETAILS:

1. PRIMARY FLOW MEASUREMENT DEVICE PROPERLY INSTALLED AND MAINTAINED. TYPE OF DEVICE  Y  N  NA
2. FLOW MEASURED AT EACH OUTFALL AS REQUIRED.  Y  N  NA
3. SECONDARY INSTRUMENTS (TOTALIZERS, RECORDERS, ETC.) PROPERLY OPERATED AND MAINTAINED.  Y  N  NA
4. CALIBRATION FREQUENCY ADEQUATE.  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

BUCKMAN DIRECT DIVERSION	NM0030848
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**SECTION F - LABORATORY (CONT'D)**

- |   |  |
|---|--|
| 2. IF ALTERNATIVE ANALYTICAL PROCEDURES ARE USED, PROPER APPROVAL HAS BEEN OBTAINED | <input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA   |
| 3. SATISFACTORY CALIBRATION AND MAINTENANCE OF INSTRUMENTS AND EQUIPMENT.           | <input checked="" type="checkbox"/> S <input type="checkbox"/> O <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA |
| 4. QUALITY CONTROL PROCEDURES ADEQUATE.   | <input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA                            |
| 5. DUPLICATE SAMPLES ARE ANALYZED. <u>100</u> % OF THE TIME.                        | <input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA   |
| 6. SPIKED SAMPLES ARE ANALYZED. <u>   </u> % OF THE TIME.                           | <input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> O NA   |
| 7. COMMERCIAL LABORATORY USED.  | <input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA   |

LAB NAME                      SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC.  
 LAB ADDRESS                 3310 WIN STREET, CUYAHOGA FALLS, OH 44226  
 PARAMETERS PERFORMED   TSS, HERBICIDES, RADS, VOC, SVOC, PCBS, TCDD, DISSOLVED METALS, CN, TURBIDITY, NITROGEN, PESTICIDES

**SECTION G - EFFLUENT/RECEIVING WATERS OBSERVATIONS.**     S  M  O  U  NA (FURTHER EXPLANATION ATTACHED YES).

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

RECEIVING WATER OBSERVATIONS EFFLUENT OUTFALL IS BENEATH THE SURFACE OF THE RIVER.

**SECTION H - SLUDGE DISPOSAL**

SLUDGE DISPOSAL MEETS PERMIT REQUIREMENTS.                       S  M  U  NA (FURTHER EXPLANATION ATTACHED YES).  
 DETAILS:

- |  |   |
|--|---|
| 1. SLUDGE MANAGEMENT ADEQUATE TO MAINTAIN EFFLUENT QUALITY.  | <input checked="" type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input type="checkbox"/> NA |
| 2. SLUDGE RECORDS MAINTAINED AS REQUIRED BY 40 CFR 503.  | <input type="checkbox"/> S <input type="checkbox"/> M <input type="checkbox"/> U <input checked="" type="checkbox"/> NA |
| 3. FOR LAND APPLIED SLUDGE, TYPE OF LAND APPLIED TO: <u>LANDFILLED</u> (e.g., FOREST, AGRICULTURAL, PUBLIC CONTACT SITE) |   |

**SECTION I - SAMPLING INSPECTION PROCEDURES** (FURTHER EXPLANATION ATTACHED NO).

- |  |  |
|--|--|
| 1. SAMPLES OBTAINED THIS INSPECTION.   | <input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA |
| 2. TYPE OF SAMPLE OBTAINED<br>GRAB _____ COMPOSITE SAMPLE _____ METHOD _____ FREQUENCY _____ |  |
| 3. SAMPLES PRESERVED.  | <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA            |
| 4. FLOW PROPORTIONED SAMPLES OBTAINED.   | <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA            |
| 5. SAMPLE OBTAINED FROM FACILITY'S SAMPLING DEVICE.  | <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA            |
| 6. SAMPLE REPRESENTATIVE OF VOLUME AND MATURE OF DISCHARGE.                                  | <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA            |
| 7. SAMPLE SPLIT WITH PERMITTEE.  | <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA            |
| 8. CHAIN-OF-CUSTODY PROCEDURES EMPLOYED.   | <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA            |
| 9. SAMPLES COLLECTED IN ACCORDANCE WITH PERMIT.  | <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA            |

## **Introduction**

On April 14, 2011, Sarah Holcomb of the New Mexico Environment Department (NMED), Surface Water Quality Bureau (SWQB) (accompanied by Sandra Gabaldón, also of NMED SWQB) conducted a Compliance Evaluation Inspection (CEI) at the Buckman Direct Diversion drinking water treatment plant (BDD). BDD has a design flow capacity of 15 MGD (million gallons per day) and is classified as a major 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 NM0030848. This permit regulates the discharge to the Rio Grande in the Rio Grande Basin in Segment 20.6.4.114 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, marginal coldwater aquatic life, primary contact, and warmwater aquatic life; and public water supply on the main stem Rio Grande.

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 inspector, and records and reports kept by the permittee and/or NMED.

Upon arrival at the facility at 1045 hours on April 14, 2011, the inspector conducted an entrance interview with Mr. Robert Mulvey, Facilities Manager, where she presented credentials and explained the purpose of the inspection. Mr. Mulvey contacted Ms. Erika Schwender, Regulatory Compliance Officer, who accompanied the inspectors and Mr. Mulvey on a tour of the facility. An exit interview was conducted with Ms. Schwender at the facility at approximately 1515-1530 hours on April 14, 2011 to present the preliminary findings of the inspection.

### **Treatment Scheme**

Construction and startup operations of the Buckman Direct Diversion (BDD) facility are just being completed. This project will complement the city of Santa Fe's drinking water supply from municipal wells with San Juan/Chama diversion water from the Rio Grande. This has been a somewhat controversial project, as it is downstream from the Los Alamos National Laboratories. The facility started discharging to the river in November 2010.

This drinking water treatment facility has an NPDES permit for a discharge back into the Rio Grande from the primary sedimentation treatment process. Removal of sand prior to drinking water treatment enables the 0.1 micron filters to function properly and require less maintenance. This also enables the facility to cut down on electricity costs.

Water is diverted from the river through a large intake structure located eleven miles away from the drinking water treatment plant itself. (Please see photo #1.) Diversion usually takes place between 8pm-8am to take advantage of cheaper electricity during this low demand period of the day. The intake structure is composed of five diversion compartments which are encased in cement with fine mesh screens. There is a pump in each compartment, and all pumps are alternated. The facility will stop diversion from the river in three instances: 1) Due to the consideration for the endangered silvery minnow, when the river flow is low (below 150 cfs), the facility will stop pumping water, 2) when there is high turbidity in the river because sand and sediments cause problems with the water treatment membranes, and 3) when the facility receives early notification from Los Alamos National Labs regarding a storm event carrying pollutants down Pueblo Canyon toward the facility. With respect to storm flows, when the flow is above five cubic feet per second at the bottom of Pueblo Canyon (at the convergence with the Rio Grande), BDD will shut down diversion. In February, BDD pumped 99.63 million gallons of water up to the treatment plant and sent 2.932 million gallons back to the river.

The water is pumped from the diversion structure up to Station 2A, where the flow is measured, and then sent through nine separate vortex turbines run in parallel to remove the sand and sediment from the water. The concentrated silty water is then discharged back into the Rio Grande, at a location that is directly downstream of the intake structure. The effluent pipe is located under the surface of the river.

Currently, the facility is being managed by the city's contractors, CH2M Hill and Western Summit. The city will take over complete operation of the facility around May 1.

### **Solids Management**

Sludge will be centrifuged from the sedimentation process and sent to roll off containers on site. The facility had not yet generated any sludge from the NPDES-permitted process at the time of this inspection. The process will be that the facility will accumulate sludge until it reaches a weight of about 100 tons. Then, a TCLP test is conducted. If the sludge passes the TCLP, then it will be hauled to the Caja del Rio landfill just south of BDD.

## 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.

### Recordkeeping and Reporting

#### Section B – Recordkeeping and Reporting Evaluation – Overall rating of Marginal

The permit requires, in Part II.E, Stream Bottom Deposits:

*The permittee shall conduct a study that includes physical and biological assessments for the purpose of evaluating the impact of the discharge on streambed morphology and aquatic species. The permittee shall design the study and submit an outline to the EPA and NMED for approval at least ninety (90) days prior to the first discharge.*

*The physical assessment shall include a morphological evaluation of a cross section of the stream downstream of Outfall 001. A baseline assessment shall be conducted at least thirty (30) days prior to the first discharge, and subsequent assessments shall be conducted quarterly thereafter. These assessments shall be used to monitor the accumulation of sediment and the formation of depositional features.*

*The biological component of the study shall include a baseline survey that will be conducted at least thirty (30) days prior to the first discharge, and subsequent assessments shall be conducted quarterly thereafter. These assessments shall be used to determine the occurrence of adverse impacts on aquatic life. If adverse impacts to aquatic life exist, the permittee shall notify EPA and NMED in writing within five days. The permittee shall reevaluate discharge alternatives, including the termination of discharge.*

The permit requires, in Part III, Section D.4, Discharge Monitoring Reports and Other Reports:

*Monitoring results must be reported on Discharge Monitoring Report (DMR) Form EPA Number 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) at the following address(es):*

EPA:

*Compliance Assurance and Enforcement Division  
Water Enforcement Branch (6EN-W)  
U.S. Environmental Protection Agency, Region 6  
1445 Ross Avenue  
Dallas, TX 75202-2733*

New Mexico:

*Program Manager  
Surface Water Quality Bureau  
New Mexico Environment Department  
P.O. Box 5469  
1190 Saint Francis Drive  
Santa Fe, NM 87502*

#### Findings for Recordkeeping and Reporting:

The permittee contracted with SWCA Environmental Consultants, of Albuquerque, NM, to conduct the study required by Part II of the permit. The first version of the study was submitted to EPA and NMED for review in January 2010. After comment from both agencies, the study underwent a couple of iterations, with a final study being submitted in April 2010. For reference, this is SWCA Project No. 15250.

This document indicated that two surveys were to be completed at least thirty days prior to the facility's first discharge. After the study was submitted in April, EPA and NMED received no documentation indicating that those two surveys had been conducted. The facility started diverting water on Thursday, September 30, 2010.

According to letters received by EPA and NMED from Rick Carpenter, BDD Project Manager, dated 4-22-2010, the spring runoff flows in the Rio Grande were too high to allow the study to be completed. EPA responded on 5-19-2010 by indicating that the surveys must be done prior to the first discharge. EPA indicated that “If safety concerns exist, then the initial discharge should be rescheduled for a time prior to or after high flow conditions. Any discharge prior to the assessments would be a violation of the permit.” The only other correspondence received by NMED since EPA's response letter of 5-19-2010 is a submittal from the City on 5-24-2010 of their final study. According to an email received from the facility representative by Ms. Holcomb on April 22, 2011, the first two geomorphic assessments were conducted on August 4, 2010 and November 5, 2010. Since the study indicated that the

assessments would both be done prior to the first discharge (which occurred on September 30), this may indicate that the facility is not in compliance with the permit requirements.

The permittee is required to test for a large number of various pollutants due to drinking water concerns in general, but also because of the facility being downstream of LANL. The permit explains that the permittee can report a detection of zero if the pollutant is being tested in accordance with the MQL list contained in Part II of the permit. BDD submitted the first discharge DMRs for the quarter of September 2010-November 2010. Because the permittee was reporting parameters as ND (“non detect”), EPA required them to submit corrected DMRs, which the permittee did, dated 3-8-2011. However, the permittee reported a few parameters as zero that were not on the MQL list in Part II. These parameters should still be reported as less than the Minimum Quantification Limit: Benzo(B)fluoranthene, Endosulfan sulfate, 2,3,7,8 Tetrachloride benzo-p-dioxin, Gross alpha, and Tritium. Lead and Thallium were reported as “less than” values but should be reported as zero if they are not detected above the MQL.

There are a number of signatory issues with the DMRs. From December 2008-November 2010, the signatory authority listed on the DMR is Virginia Vigil, Chairwoman of the BDD Board. However, Bryan Snyder, Utilities Director for the City of Santa Fe, was the person signing these DMRs. There was no authorization letter for Mr. Snyder present in the files. With the November 2010 DMR, this issue was fixed. When the September 2010-November 2010 quarterly DMRs were resubmitted to correct errors, the signatory authority was still listed as Bryan Snyder, but Robert Mulvey, BDD Facilities Manager, was the person who signed those forms. Mr. Mulvey indicated during the inspection that a letter had been drafted delegating signatory authority to him, but this letter has not yet been received by EPA and/or NMED.

With the corrected DMRs submitted in March 2011, the permittee indicated that the contract lab did not use the required 1668C method in the PCB analysis. The permittee will make sure the lab uses the correct method with the next quarterly sample.

### **Self-Monitoring**

**Section D – Self-Monitoring Evaluation** – overall rating of Marginal.

**Permit Requirements** for Self-Monitoring:

The permit states in Part III.C.2, Representative Sampling:

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

The permit states in Part III.C.5.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.*

40 Code of Federal Regulations Part 136.3, Table II – Required Containers, Preservation Techniques and Holding Times, under “Table IB” states:

<i>Parameter No/Name</i>	<i>Container</i>	<i>Preservation</i>	<i>Maximum Holding Time</i>
<i>55. Residue, Nonfilterable (TSS)</i>	<i>P, FP, G</i>	<i>Cool, ≤6°C</i>	<i>7 days</i>

**Findings** for Self-Monitoring:

During the inspection, the permittee’s representative explained how the facility staff collects samples for analysis from each of the required locations in the permit. There was a discussion regarding representative sampling of the river to meet the upstream monitoring requirement. The permittee’s representative indicated that they would like to place a stake in the middle of the river to allow the sampler to rest the sampling pole in use on it, to avoid having to wade out into the middle of the stream or get too close to the edge of the river bank in cases of high river flow, or during winter conditions when the edge of the bank may be covered with ice, and therefore slippery. However, the permittee’s representative indicated that the US Forest Service, when presented with this plan, was hesitant to allow a stake to be placed in the river for this purpose. There are specified collection procedures for sampling in 40 CFR Part 136. The permittee should be sure of the requirements for all sampling methodologies prior to implementing this procedure.

The facility did not sample at the frequency required in the month of January. The facility is required to sample once/week for TSS, and there were only three samples taken in the month of January. Please see table below.

Facility's TSS sampling results for the month of January 2011:

TSS Sample Date/Time	Outfall Number	Temperature upon arrival	Analysis Date/Time	Analysis Value
1-6-11; 14:03	001	5° C	1-19-2011; ?	212 mg/L
1-6-11; 14:30	001G	5° C	1-19-2011; ?	31 mg/L
1-14-11; 11:44	001	<10° C	1-21-11; ?	87 mg/L
1-14-11; 12:20	001G	<10° C	1-21-11; ?	ND (LOQ = 2)
1-21-11; 13:05	001	4.8° C	1-27-11; ?	100 mg/L
1-21-11; 14:05	001G	4.8° C	1-27-11; ?	14 mg/L
1-24-11; 10:54	001	4.9° C	1-31-11; ?	ND
1-24-11; 11:33	001G	4.9° C	1-31-11; ?	9 mg/L

When reviewing records for the facility's TSS samples, a few problems were noted with samples submitted to the contract laboratory in January 2011. The sample collected on January 6, 2011 was not analyzed until January 19, 2011. Because the sample was not run within the 7 day hold time, it should not have been used for reporting purposes and a resample should have been taken. Also, the sample collected on 1-14-2011 did not arrive at the laboratory at a temperature of less than six degrees Celsius as required by 40 CFR 136.3.

The contract lab must put the time that analysis of a sample is started on their reports. For the samples collected on 1-14-2011 and 1-24-2011 it is impossible to determine whether the samples were analyzed within the 7 day holding time. For clarity, the laboratory should make a note of this for NPDES purposes.

On the January 2011 001A Outfall DMR, the permittee reported a daily maximum value for TSS of 212 mg/L, and a monthly average value of 117 mg/L. Because of the 1-6-2011 sample not meeting the holding time, the daily maximum value should have been reported as 120 mg/L, and the monthly average should have been reported as 100 mg/L.

Similarly, the values reported on the DMR for the influent TSS are also not correct. Again, the sample taken on 1-6-2011 should have been discounted because of not meeting the holding time. Therefore, the daily maximum for influent should have been reported as 31 mg/L (which the permittee did correctly) and the monthly average should have been reported as 7.67 mg/L.

### Receiving Waters

**Section G – Receiving Waters Evaluation** – overall rating of Satisfactory.

**Permit Requirements** for Receiving Waters:

The permit states in Part I.A:

*There shall be no discharge of floating solids or visible foam in other than trace amounts.*

**Findings** for Receiving Waters:

The facility's effluent pipe is located beneath the surface of the Rio Grande, directly downstream of the diversion intake structure. (Please see Photo # 2.) Because the pipe is underwater, it is difficult to observe the effluent flow to determine whether the permittee is compliant with visual discharge requirements.

NMED/SWQB

Official Photograph Log

Photo # 1

Photographer: Sarah Holcomb	Date: 4-14-2011	Time: 1242 hours
City/County: Santa Fe/Santa Fe County		
Location: Buckman Direct Diversion Project intake structure		
Subject: Diversion point bringing Rio Grande water into the treatment facility.		



NMED/SWQB

Official Photograph Log

Photo # 2

Photographer: Sarah Holcomb	Date: 4-14-2011	Time: 1308 hours
City/County: Santa Fe/Santa Fe County		
Location: Buckman Direct Diversion Project		
Subject: Approximate location of the effluent pipe from the sediment removal process. The pipe is located beneath the surface of the Rio Grande. This is just south of the diversion structure.		



NMED/SWQB

Official Photograph Log

Photo # 3

Photographer: Sarah Holcomb	Date: 4-14-2011	Time: 1328 hours
City/County: Santa Fe/Santa Fe County		
Location: Buckman Direct Diversion Project		
Subject: Effluent sampling location – valve is located on discharge pipe prior to outfall.		

