MALCOLM PIRNIE

LETTER OF TRANSMITTAL

To: D.A. Collins Environmental
101 Route 67
P.O. Box 191
Mechanicville, NY 12118

Date: February 12, 2009

Attention: Patrick Cummings

We are sending you X Enclosed ☐ Via E-mail ☐ Mail ☐ Messenger, the following items:

X shop drawings ☐ prints ☐ data sheets ☐ Construction Records
☐ specifications ☐ sketches ☐ brochures ☐ Report

COPIES	PREPARED BY	REFERENCE NO.	DESCRIPTION
3	D.A. Collins	11379-01G	Updated CWMP

THESE ARE TRANSMITTED AS CHECKED BELOW:

☐ As requested
X For your use
☐ For review & comment
☐ For your information

X Approved
☐ Approved as Corrected
☐ Revise and Resubmit
☐ Not Approved

☐ Resubmit ____ copies for approval
☐ Submit _____ copies for distribution
☐ Return _____ corrected Prints
☐ _____

Remarks: None.

Copies: File 0266349

Very truly yours,
MALCOLM PIRNIE, INC.

John J. Nead
Senior Inspector

SUBMITTAL COVER SHEET

First Submittal [X] Date: 01/19/2009

DAC's Submittal No.: 11379-01G

Resubmitted [ ] Date:

Project: Luzerne Road
Remediation Project

Contract For: Luzerne Road
Contractor: D.A. Collins Environmental
Address: 101 Route 67 P.O. Box 191
Mechanicville, NY 12118
PH / Fax: (518) 792-5864 / (518) 792-2458
Subcontractor:

Shop Drawing Title:

Submittal Description: Updated CWMP

[ ] Product Data [ ] Tests [ ] Schedules [ ] Samples

Manufacturer:

REFERENCES:
Spec Section (s): 11379 Drawing Number (s):

ADDITIONAL REMARKS:
Update

CONTRACTOR'S APPROVAL
Date: 01/19/2009 By: PMC

[X] Submitted product has been reviewed for Release to Architect/Engineer and

[ ] Submitted product is as specified

[ ] Submitted product is equal to specified product.

[X] APPROVED
[ ] APPROVED AS CORRECTED
[ ] REVISE AND RESUBMIT
[ ] NOT APPROVED

Checking is only for the conformance with the design concept of the Project and compliance with the information given in the Contract Documents. Contractor is responsible for dimensions to be confirmed and correlated at the job site; for information that pertains solely to the fabrication process or to techniques of construction; and for coordination of the work of all trades.

MALCOLM PIRNIE, INC.

Date 2/12/09 By

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SUBMITTAL FOR:

DEPARTMENT OF ENVIRONMENTAL CONSERVATION
LUZERNE ROAD SITE
SITE NO. 5-57-010 (RCC #D006759)

TOWN OF QUEENSBURY, NY

CONSTRUCTION WATER MANAGEMENT PLAN (CWMP)

11379-01G

SUBMITTED TO:

SUBMITTED TO:

DIVISION OF ENVIRONMENTAL REMEDIATION
NYS DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Mr. Gerard Burke, P.E.
Project Manager
Remedial Bureau E
625 Broadway, 12th Floor
Albany, New York 12233-7013

SUBMITTED BY:

D.A. COLLINS ENVIRONMENTAL SERVICES
101 Route 67, PO Box 191
Mechanicville, New York 12118-0190
Ph. 518-664-9855 / Fax 518-664-9609

D.A. COLLINS COMPANIES

A Proud Member of the D.A. Collins Companies

January 19, 2009

Table of Contents

1.0 Overview

The Construction Water Management Plan (CWMP) shall be utilized to manage the collection, handling, treatment, and disposal of construction water which is generated on-site as a result of direct contact with impacted materials.

All controls to be implemented for non-impacted stormwater and run-on/run-off water handling will be outlined in the Storm Water Pollution and Prevention Plan (SWPPP). The SWPPP will be designed and submitted for approval upon award of contract.

A copy of this CWMP shall be maintained on-site at all times and updated as necessary to maintain compliance with all applicable permits.

This CWMP represents the minimum standard to which contaminated water will be managed and treated. In the event that the proposed treatment technologies do not adequately achieve the stipulated discharge limits, additional methods or components will be implemented to upgrade the performance of this plan.

2.0 Collection & Handling of Construction Water

2.1 Collection & Transfer

Any water identified as potentially contaminated by direct contact with contaminated media shall be collected for management. Typical construction water (CW) could include, but is not limited to, the following:

- Groundwater or surface water entering excavations;
- Leachate is encountered in the PCB containment cell.
- Liquids generated during decontamination activities;
- Water or other liquids, in addition to that resulting from precipitation, which may have come into contact with potentially contaminated soil or debris.
- Water which is collected in the sumps at the TDU / TSCA stockpile slab, treated soil stockpile pad, WWTP pad, or decon pad.

The means and methods of collecting CW will vary with the location of the water and the estimated volume. In most cases, DAC intends to pump directly from the water source location to the storage tanks located at the temporary Wastewater Treatment Plant (WWTP). Pump type and capability will vary with the application. General pumping will be performed as follows:

- 2 -3 " trash pumps for various excavations
- 4" submersibles where continuous pumping is needed.
- 2" electrical pumps in sump locations.

2.2 Storage

Storage of CW will be maintained with 21,000 gallon frac tanks located with the WWTP. The exact placement of the frac tanks has been finalized and is reflected in the WWTP layout. Additional tanks will be placed around the site if needed to support the excavation operations.

Frac tanks will be dedicated as either Treated or Untreated Storage to prevent cross contamination of treated water by residuals from a contaminated tank. Untreated water shall not be placed into a Treated Water tank. Multiple frac tanks may be used for storage of both Treated and Untreated Water. One or more Untreated Water tanks will be setup to provide surge storage during dewatering operations and to allow for primary settling of particulates. One or more Treated Water tanks will be used for discharge surge dampening and to allow for observation and sampling of Treated Water. (Added. Underneath additional temporary Frac tanks, 40-mil HDPE Liner. In addition to this, a berm will be constructed to help retain any water.)

2.3 WWTP Startup Demonstration

It is anticipated that preliminary treatment and testing will be performed in accordance with Section 3.2 of the contract documents. The WWTP Start-Up and Performance Testing Plan is attached as Appendix 3. Included in this is a description of the Treatment System Demonstration Test Report.

Upon completion of the WWTP demonstration, DAC's Field Engineer will submit the Demonstration Test Report to the Engineer for final approval. Full scale WWTP operations will commence after Engineer review and approval.

2.4 Construction Water Minimization

Where possible, the volume of CW shall be minimized through the utilization of engineering controls, task sequencing, and other methods. Areas which have the potential to generate large volumes of CW shall be closed, covered, or otherwise protected (where practical) to minimize the amount of water contacting contaminated surfaces. Water minimization methods may include the following:

- Tarpaulin or poly sheeting covers over contaminated stockpiles.
- Upgradient stormwater diversion to prevent overland flow into contaminated sediment storage areas.
- Control and minimization of contractor's water utilization during equipment decontamination and related activities.

3.0 Water Treatment & Discharge

3.1 Water Treatment System

Treatment of CW will be performed using a portable system with a baseline capacity of 100 gpm. The anticipated system components are listed below. Please note that system components may be altered or added depending upon the nature of the construction water.

- Pre-filtration during dewatering, potentially including stone lined sumps and/or an in-line filter bank for sediment removal.
- Tank 1: Weir-style frac tank for primary sediment deposition and flocculant amendment.
- Tank 2: Standard frac tank for secondary settling and storage.
- Pre-treatment particulate filtration via bag filter (50 and 25 micron).

- Organoclay filtration via one 2,000 lb. vessel.
- Activated carbon polishing via two 1,800 lb. vessels in parallel.
- Post-treatment particulate filtration (5-10 micron).
- Pumps and controls for all systems.

Installation and operation of additional system components will be dependent upon the discharge criteria, the nature of the CW, and the performance of the baseline system described above.

3.2 Confirmatory Analysis

Following a successful demonstration, all water treatment will be performed on a continuous discharge basis with weekly sampling in accordance with the DAC Sampling Plan and DEC Effluent Criteria for Surface Water Discharge. During periods where water treatment is intermittent and limited to one or two days per week, the weekly sampling requirement will be substituted with an equivalent testing frequency of one sample per seven (7) days of water treatment operations.

Treated CW will not be discharged until sample analysis has demonstrated compliance with the permit requirements. DAC will be provided sufficient time to review any lab reports prior to discharge.

3.3 Discharge - Treated Water

DAC will discharge treated water into a retention basin located in the South Area. Effective December 12, 2008, discharge will be based on a per batch basis, until otherwise notified.

Phase	Mode	Sampling/Frequency	Discharge Authorization
Startup/Demonstration	Batch	1/20,000 Gallons	Upon approval by the Engineer
Standard Operations-Continuous	Continuous	1/7 Calendar Days	Continuous
Intermittent	Continuous	1/7 Operating Days	Continuous
Significant Change in Influent Water	Batch	1/20,000 Gallons	Upon approval by the Engineer
Treatment Media/Change in Components	Batch	1/20,000 Gallons	Upon approval by the Engineer

4.0 Waste Disposal

4.1 Off-Site Treatment Alternatives

In the event that DAC elects to dispose of water at an off-site TSDF, the facility information will be submitted to the Engineer for review and approval prior to any waste shipments. No wastewater will be shipped for off-site disposal without Engineer approval.

If DAC decides to discharge the treated construction water to a public sewer system, all approved applicable local and state permits will be submitted to the Engineer for review prior to the start of discharge.

4.2 Solid Wastes

Solid wastes resulting from the operation and maintenance of the water treatment system and storage tanks will be characterized and disposed of off-site in accordance all applicable regulations. Solid wastes from the WWTP are expected to include:

- Spent bag filters
- Spent activated carbon, organoclay, and filter sand
- Sediments, silt and sludges from storage tanks and vessels
- Poly sheeting, liner material, PPE, sampling media, and other disposables

5.0 Contingency Measures

If a significant precipitation event is forecasted during WWTP non-operational hours, the following plan will be put into effect:

- LTTD personnel will be instructed to monitor precipitation collection areas (sumps, open excavations) during precipitation events.
- If significant stormwater accumulation is observed, they will contact the DAC project superintendent and/or project manager.
- They will in turn contact and mobilize the on-call WWTP operator.
- Once onsite, the WWTP operator will begin necessary pumping and treatment operations.
- DAC will also provide off-hour WWTP staffing where known conditions will require full time operation.

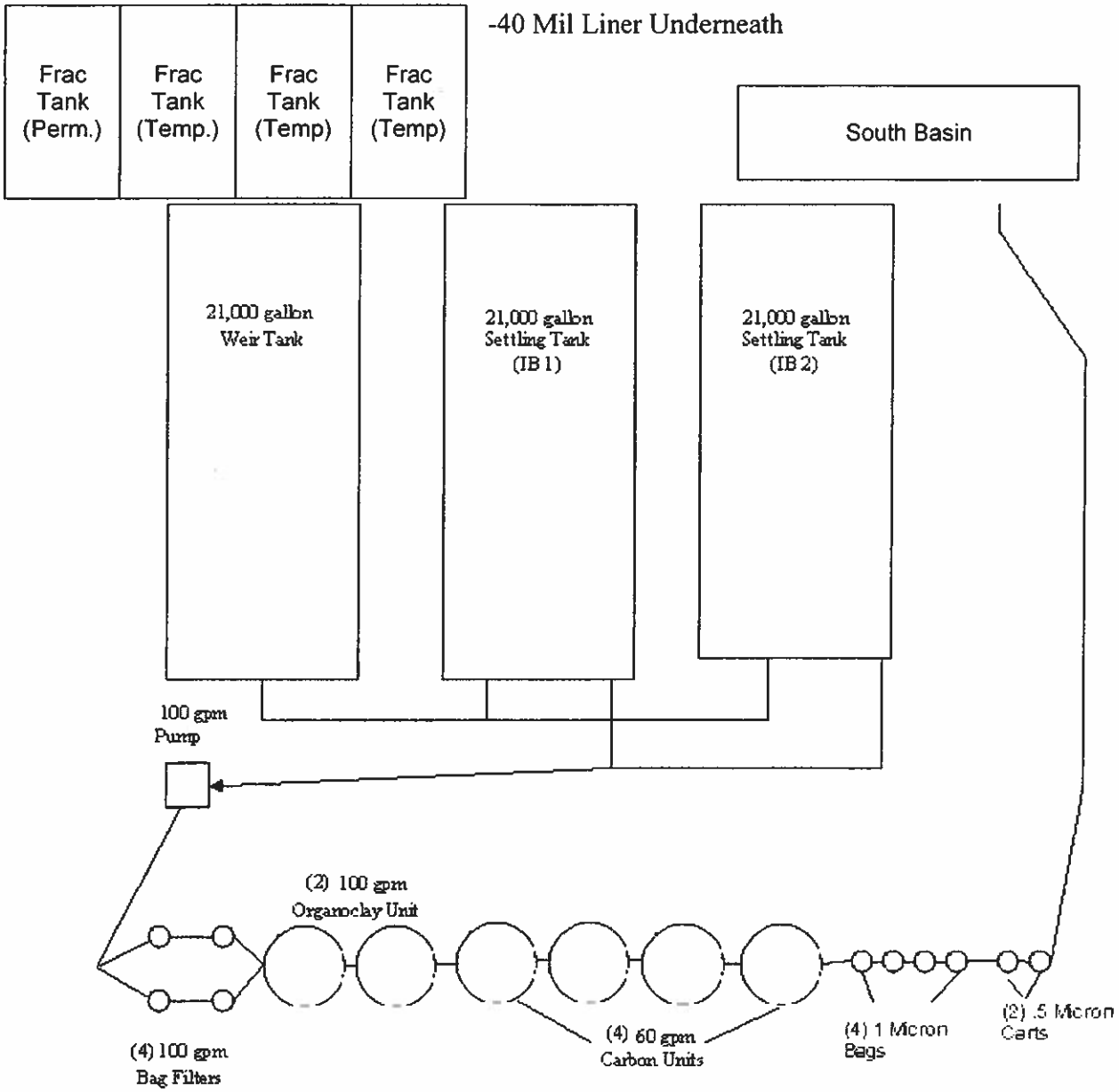
6.0 NAPL Management

DAC does not anticipate encountering significant NAPL layers during excavation activities. If NAPL is encountered, it will be pumped along with the construction water directly to the WWTP where it will be separated within the weir tank. If a significant amount of NAPL is encounter, DAC will make reasonable efforts to segregate and recover NAPL rather than mixing it with influent water. Small volumes of water (blebs) will be pumped into the water tank with the influent water. NAPL which accumulates in the weir tank will be periodically pumped out to an onsite temporary storage tank. After a sufficient amount of NAPL has been collected in the storage tank, it will be sampled, analyzed and profiled into an approved disposal facility.

Appendix 1 – Treatment System Schematic

Frac Tanks will be brought in for temporary use as needed.

If samples do not pass, the water will be retreated.



Appendix 2 – Treatment System Component Drawings

(Provided with Shop Drawings prior to Construction)

Appendix 3 – WWTP Start-Up and Performance Testing Plan

WWTP Start-Up and Performance Testing Plan

Upon completion of construction of the WWTP, and prior to any discharge, the following plan shall be implemented to ensure proper and satisfactory operation. NOTE: Steps 1-5 may be performed remotely at DAC's (or third party suppliers) shop. Letters of inspection are suitable to document this requirement.

1. Visually inspect system components and parts. Inspect interior of all components. Correct any deficiencies.
2. Perform operational test of all moving parts (with power disconnected).
3. With motor leads disconnected, activate all system sensors and check voltage to ensure proper operation. If necessary, use simulators to mimic sensor signals.
4. Using potable water, fill system and check all components for leaks. Pressure test system, at test pressure recommended by manufacturer of lowest pressure component, for 2 hours. After pressure testing, operate system while feeding clean water. Check for leaks and repair any found.
5. Empty clean water from system.
6. Connect liquid effluent discharge to 21,000 gallon effluent frac tank (OB1).
7. Provide influent construction water to 21,000 gallon weir tank. Sample influent water prior to entering weir tank. Weir tank gravity flows into 21,000 gallon influent tank (IB1). Influent water will begin to be accumulated once contaminated soil excavation begins.
8. Once IB1 is full, begin flowing influent water from IB1 to system. Make all necessary adjustments of components to ensure smooth operation. Make sure all valves and moving parts operate properly.
9. Once all necessary adjustments have been made, operate system continuously until OB1 is full to operating capacity (20,000 gallons).
10. When OB1 is full, sample effluent water.
11. After collection of samples, the treatment system will be shut down until confirmed analytical results are received.
12. If water treated during start-up does not meet discharge requirements, it will be re-treated and sampled until it meets requirements. System modifications will be performed until effluent water meets discharge requirements under normal operating conditions.
13. If water treated during start-up does meet discharge requirements, it will be discharged, upon written acceptance by the Department, to the discharge area. System will then be considered operational.
14. Parameters for operation and maintenance of the WWTP will be established during start-up operations.

Treatment System Demonstration Test Report

During start-up and testing of the WWTP system, a daily log will be maintained, comprised of the following:

- Process control procedures and monitoring
- Equipment maintenance log
- General observations
- Performance-verification sampling

A copy of the daily log will be submitted to the Engineer each day.

Upon completion of start-up and testing, the daily logs will be submitted in booklet form showing all field tests to adjust each component and all field tests performed to prove compliance with the specified performance criteria.