New York State - Department of Environmental Conservation
Division of Environmental Remediation
Periodic Review Evaluation Report

Period covered by -- 2009-201

Site Code:	712006	**Site Name:**	SCM - Cortlandville	**Class:**	04
Program Lead:	State Superfund Program	**Site Management Funding Source:**	Responsible Party (RP)		
Start Date:	01/01/2001 ACT				
IC/EC Certification:	**Recieved Date:** 02/16/2010	**Accept Date:**	03/31/2010		
DEC Inspection Date:	--- Last Date of DEC Inspection				
Report Used for Evaluation:	Site Management				
ROD Complicance?	Yes				
Long Term Monitoring (effectiveness of remedy):	Yes	**Frequency:**			
Treatment System (Monitoring performance of remedy):	Yes	**Frequency:**		**Number of Wells:**	17
Problem Status:					

Impact Potential Slight

Elements

Health Impact-Potential

Engineering Controls Moderate

Elements

Hydraulic Control

Comments/Changes/Attachments:
The remedy is performing properly but is not effective. An operational site management plan summary was provided to the PRP with 60 days to accept or 90 days to submit a SMP of their own design. A letter detailing the SMP requirements has been sent to the PRP. This letter also identifies deficiencies in the 2009 PRR that must be addressed prior to submittal of the next annual PRR.

ROD/Consent Order Modifications? No

Site reclassifiaction recommended:

Contaminent of concern	OU	Media/Receptor
TRICHLOROETHENE (TCE)	01	
XYLENE (MIXED)	01	
ETHYLBENZENE	01	
1,1,2-TRICHLORETHYLENE	01	
TRICHLOROETHENE (TCE)	03	

Evaluation: The Remedy is performing properly and effectiveness will be evaluated.

Next Review:	1/1/2011	**Priority:**	01
Project Manager:	TPFESTA	**Reviewer:**	WEWERTZ
Signature:	Date: 3/31/2010	Signature:	Date: 03/31/2010
Name	Region or Bureau / Telephone	Name	Region or Bureau / Telephone
Thomas Festa	BURE 402-9813	William E Wewertz	BURE

☑ SM Certified
All Data Entered

New York State - Department of Environmental Conservation
Division of Environmental Remediation
Periodic Review Evaluation Report

Remedies	OU	Site of Treatment	Date in Place	Remedy Effective
No Action	01	XX		Ongoing
Soil Vapor Extraction	01	XX		Ongoing
Other	01	XX		Ongoing
Waterline Construction/Extension and Connection	01	XX		Ongoing
Soil Vapor Extraction	02	XX		Ongoing
No Further Action	02	XX		Ongoing
Air Stripper	02	XX		Ongoing
Sub-slab Depressurization (Active)	03	XX	08/01/2006	Ongoing

Next Review:	**Priority:** 01
Project Manager: TPFESTA	**Reviewer:** WEWERTZ
Signature: Date:	Signature: Date: 03/31/2010
Name Region or Bureau Telephone	Name Region or Bureau Telephone

☑ SM Certified
All Data Entered

New York State Department of Environmental Conservation
Division of Environmental Remediation
Remedial Bureau E, 12th Floor
625 Broadway, Albany, New York 12233-7017
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Alexander B. Grannis
Commissioner

APR - 1 2010

Mr. Karl Ochs
c/o S.C.W.P., LLC
3877 Luker Road
Cortland, New York 13045

RE: NYSDEC Site No. 712006
SCM Cortlandville, 839 Route 13 South
Town of Cortlandville, Cortland County
New York, Site Management

Dear Mr. Ochs:

The New York State Departments of Environmental Conservation and Health (the Agencies) have received and reviewed the 2009 Periodic Review Report (PRR). The 2009 PRR contains some minor deficiencies that must be satisfactorily addressed prior to approval of subsequent PRRs. These deficiencies are detailed in Attachment A. The 2009 PRR is otherwise acceptable to the Agencies, conditional on successful repair/replacement, development, and re-survey of MW-2D prior to the annual groundwater monitoring event in November 2010.

As you may be aware, 6-NYCRR Part 375 requires a Site Management Plan (SMP) for all remedial sites with ongoing site management. "Site Management" means the activities undertaken as the last phase of the remedial program at a site. The SMP identifies and implements the institutional controls (ICs) and engineering controls (ECs) required for a site, as well as any necessary monitoring and/or operation and maintenance of the remedy.

Because no "single source" SMP exists for the SCM Cortlandville site, Attachment B of this letter outlines the operational site management requirements for the SCM Cortlandville site in Cortland, New York. Attachment B provides a concise summary of the remedial goals, cleanup criteria, and site management requirements that are contained in the various site documents. This SMP summary document was prepared to assist the parties responsible for the remediation of the site, to facilitate compliance, and assist in identifying the required annual IC/EC certifications for subsequent PRRs. In conjunction with the remedial documents that constitute the administrative record for the investigation and remediation of this site (including, but not limited to, the 1988 Site Investigation and Remedial Action Plan, the 1988 Focused Feasibility Study, the 1989 Settlement Agreement, the 1990 Supplemental Site Investigation Work Plan, the 1990 Supplemental Site Investigation Report, the 1991 Remediation System

As-Built Report, the 1994 Record of Decision, and the May 10, 2001 letter from NYSDEC to S.C.W.P., LLC), this document constitutes a summary of the minimum operational SMP requirements. In some instances, duplicative requirements identified in multiple site documents have been consolidated. Requirements that are no longer applicable to the current SMP are not addressed. Administrative requirements, such as the required 30-day notification of any changes in site ownership or engineering consultants, 5-day notice of any excavation, drilling or sampling, and other general bookkeeping requirements that are required by 6-NYCRR Part 375 and/or the site's administrative records, remain in place and are not included with this summary.

Efforts were made to consolidate the various sources of requirements without altering the intent or purpose of the requirements. Future PRRs and SMP requirements will be referenced to this summary. To provide this condensed summary, the specific requirements identified in the various site documents are not transposed verbatim and in some instances the requirements have been altered to account for previously undocumented modifications to the remedial system, and specifically for the purpose of bringing these undocumented modifications into compliance.

If this summary of the operational SMP requirements is acceptable to S.C.W.P., please provide notification in writing of such acceptance to the NYSDEC Project Manager within 60 days of receipt of this letter.

If this summary of the operational SMP requirements is not acceptable to S.C.W.P., LLC, please also provide notification in writing to the NYSDEC Project Manager. In lieu of accepting this SMP summary, please prepare and submit a SMP for Department approval within 90 days of the receipt of this letter.

Please be aware that modifications to the SMP may be made at any time with Agency approval. Any proposed modifications should be formally submitted via petition to the NYSDEC Site Control Section Chief and NYSDEC Remedial Project Manager. Specifically, the 2009 PRR recommends beginning a discussion of the criteria for conditional shutdown of the GWETS due to declining influent concentrations and considerable power consumption demands of the system. The Agencies encourage optimization of the remedial system and welcome a formal submittal of a work plan to optimize the GWETS. One possible modification could be to reduce pumping hours during times of low water table conditions. A desktop study of the correlation between GWETS influent TCE concentrations and reference water levels (such as historical records of currently available real-time groundwater elevation data that may be available online from the USGS) could potentially provide justification to reduce or eliminate pumping during certain times of the year based on groundwater levels.

Please feel free to call me at any time to discuss this correspondence or any other issues related to the SCM-Cortlandville site. I can be reached at (518) 402-9813, and correspondence may be sent to the address above, or via e-mail to tpfesta@gw.dec.state.ny.us.

Sincerely,

Thomas Festa
Project Manager
Remedial Section B, Remedial Bureau E
Division of Environmental Remediation

Enclosure

cc: J. Buck

SCM-Cortlandville
2009 Periodic Review Report Response Letter

Attachment A
Comments on the PRR

General:

These comments are provided and intended to facilitate modifications to the periodic review reports (formerly Annual Report) that are required to be submitted to the Department on an annual basis. Acceptance of future PRR's is contingent on the adoption or incorporation of these comments.

1. Part II, Section A, Adjacent property description
   The municipal water wells belonging to the town of Cortlandville are located on an 8.7-acre parcel to the west of the site. The municipal wells themselves are located approximately 2,350 feet west and slightly to the north of the TCE source area. The well field parcel is not located to the southwest of the site, as stated in the PRR.

2. Part II, Section C, Cleanup Criteria
   The November 1988 Focused Feasibility Study states that the "cleanup criteria for the site are defined as 5 ug/l of trichloroethylene (TCE) and 10 ug/l for total volatile organics (VOC), respectively." These criteria apply to all wells.

3. Part II, Section C, Cleanup Criteria
   The cleanup criteria for the groundwater extraction and treatment system (GWETS) are the system performance specifications of 1 ug/L (maximum) for TCE and 5 ug/L (maximum) for total volatile organics. This performance standard is stated in the Focused Feasibility Study as well as in the 1991 Remediation System As-Built Report. The 2001 Delaney letter did not change the performance standard of the remedial system effluent; it only provided a maximum effluent concentration for *non-blower* operations. If the GWETS effluent (either at the tower discharge or at the cascade outfall) concentrations exceed this maximum concentration, the operation of the blower must be resumed. The performance criterion for the GWETS remains 1 ug/L for TCE during blower operation, although effluent concentrations up to 5 ug/L are permissible during non-blower operation. For clarity, the use of the term "cleanup criteria" should be replaced with "performance standard" when referring to the GWETS effluent levels.

4. Part II, Section C, Site Closure Criteria
   The text omits the requirement of re-evaluating the GWETS if perimeter wells exceed the cleanup criteria. This requirement has not been adhered to. Perimeter wells MW-10S and MW-10D have consistently exceeded the cleanup criteria. An engineering evaluation of the GWETS was conducted in 2006. This engineering evaluation determined that the maximum design flow rate of 1000 gpm cannot be maintained without modifications to the system. No evaluation of the recovery well itself was made and no modifications were made to the system to reduce perimeter well TCE concentrations. Therefore this

evaluation does not constitute a recovery well system re-evaluation as required in the Focused Feasibility Study. The cleanup criteria for all wells is 5 ug/l for TCE, and this must be met prior to consideration of site closure, therefore it is not appropriate to discuss perimeter vs. shallow well TCE concentrations in terms of site closure requirements. All wells must meet cleanup criteria for one year before the GWETS can be shut down, and must continue to meet cleanup criteria for an additional 5 year post-shutdown period, before the site closure criteria will be considered achieved.

5. Part II, Section C, Site Closure Criteria
   The criteria for discontinuance of groundwater recovery from the lower portion of the aquifer are correctly stated. When groundwater samples from MW-12D and MW-9 meet cleanup criteria for at least 6 months, the lower well screen in the recovery well should be blocked off so that groundwater can only enter the recovery well at the upper screen. This criterion has been achieved however the GWETS continues to draw groundwater from both screened intervals and therefore the site is not in compliance with the remedial monitoring program requirements.

6. PartIII, Section A, Groundwater Remediation System
   The blowers (primary and backup) are required to remain in place and in operable condition. The blower component of the GWETS *must be operated* if any effluent samples have TCE concentrations above 5 ug/L.

7. PartV, Section A, Monitoring Plan
   The monitoring plan goals defined in the Focused Feasibility Study identified criteria for discontinuing the recovery of groundwater from the lower screen interval and re-evaluating the GWETS. This information was omitted from the text and must be included in future PRRs.

8. Part VI, Section D, Performance and Effectiveness of the Remediation System
   The department does not concur that the remedy continues to be effective. Identification of an additional source area of TCE contamination was documented in the February 2007 Indoor Air and Sub-Slab Soil Gas Survey and in the January 2009 MW-L16 letter report. This source area is the "tumbling pit" area used in historical SCM operations. This source area is located approximately 500 feet southeast of the recovery well and outside the maximum radius of inflow (350 feet) calculated for the recovery well in the As-Builts Report. This maximum radius of inflow was based on a pumping rate of 975 gallons per minute (gpm), a pumping rate that has not been achieved in recent times. Based on 421 million gallons pumped in 2009, and 8,594 hours of pumping, the average pumping rate in 2009 was 816 gpm. This corresponds to a maximum radius of inflow of 117 feet. This data indicates that the remedial system is not achieving the goals of the monitoring plan. This information, as wells as the confirmed exceedences of cleanup criteria at MW-10-S and MW-10D (located at the site property line) indicates that groundwater from the site is migrating off site with TCE concentrations over 5 ug/L. Although the GWETS is in fact meeting the effluent limit criteria, it is not effectively remediating or containing the contaminated groundwater on the site. An in-depth evaluation of the remedial system is required.

9. Part VII, Recommendations

The Department concurs with recommendations to repair/replace MW-2D, increase sampling frequency of MW-10S and MW-10D to quarterly (for a minimum period of one year), and maintain the annual sampling frequency of all other wells.

The Department encourages remedial system optimization to accelerate remediation and improve cost-effectiveness of the remedial efforts.

The recommendation to discontinue monitoring of MW-7 is acceptable only if MW-L16 is adopted into the full O&M program as MW-7's replacement.

SCM-Cortlandville
2009 Periodic Review Report Response Letter

Attachment B

Site Management Plan
Summary of Operational Requirements

SCM-Cortlandville Site
NYSDEC Site #712006

This document summarizes the minimum requirements for operation & monitoring of the onsite remedial systems.
This summary does not detail the administrative & reporting requirements for the site. Those requirements may be found in the administrative records, including the RI, Settlement Agreement, FFS, SSI, ROD, and subsequent correspondence between SCM/SCC/SCWP and NYSDEC. General remedial program requirements are found in 6 NYCRR Part 375.

1) **Goals of the Remedial Monitoring Program**
   a) Provide verification that groundwater from the site does not migrate off-site with concentrations greater than the cleanup criteria.
   b) Monitor remediation of the site with respect to the final groundwater remediation goal (groundwater meets cleanup criteria).
   c) Monitor the effectiveness of the groundwater treatment system (GWETS)

2) **Site-wide groundwater cleanup criteria**
   a) **Current NYS Class GA Groundwater Standards**.
   b) Currently, the standard for TCE is **5** µg/L (ppb).

3) **Groundwater Monitoring Scope**
   a) Collect groundwater elevation measurements and groundwater samples for laboratory analysis from the following monitoring wells:

MW-1S	MW-5S	MW-10D
MW-1D	MW-5D	MW-11
MW-2S	MW-6	MW-12S
MW-2D	MW-8	MW-12D
MW-4S	MW-9	MW-L16*
MW-4D	MW-10S	

b) * The above wells incorporate a recommendation from the 2009 PRR to discontinue monitoring of MW-7, due to a damaged casing potentially compromising the sample integrity. Discontinuance of the required monitoring of MW-7 will be allowed in exchange for adoption of monitoring well MW-L16, with the same frequency and analyses required of MW-7.

c) Chemical analyses of groundwater samples should be conducted by a NYSDOH ELAP certified laboratory, via EPA method 8260B GC/MS (VOCs).

4) **Groundwater Monitoring Frequency**

a) All site wells must be monitored **annually** until all wells meet cleanup criteria. When all wells meet cleanup criteria, the remedial system may be shut down and the sampling frequency will increase to quarterly for the first two years, then semi-annually for the next two years, and once in the 5th year following remedial system shut down. If at any time during this 5-year post shut down period, any groundwater samples exceed the cleanup criteria, the remedial system will be restarted. Once groundwater concentrations re-achieve the cleanup criteria, the 5-year post-shutdown monitoring program will be restarted.

b) Monitoring wells MW-10S and MW-10D may be monitored quarterly to evaluate recent increases in TCE concentration in this location. This quarterly monitoring may be scheduled to coincide with the monthly GWETS monitoring. The quarterly monitoring of MW-10S and MW-10D should be conducted for at least one full year, and an evaluation of hydrologic conditions in the vicinity of this well cluster should be included in the annual PRR following the last quarterly sampling event.

5) **Remedial System**

a) Groundwater extraction & treatment system (GWETS)

- Must run continuously, with the exception of scheduled preventative maintenance and repairs, until the cleanup criteria are reached for all wells. Totalizer readings should be recorded on a regular basis.
- The GWETS must operate according to the design specs contained in the December 1991 Remediation System As-Built Report prepared by O'Brien & Gere Engineers, Inc. (OBG).
- The GWETS may be run without operation of the blower component, as authorized in the May 10, 2001 correspondence from DEC, provided:
  (1) Groundwater from the recovery well will continue to be treated through the air stripper,
  (2) The blowers to the air stripper (both primary and backup) remain in place and in good working condition, and
  (3) Monitoring of groundwater influent and GWETS effluent (both at the stripper and at the outfall) will be conducted monthly. If any of these analyses show effluent TCE concentrations above 5 ppb, use of the blower must be resumed immediately.
- The GWETS must be inspected and certified by a qualified environmental professional on an annual basis. This inspection should include the infiltration lagoons as well as the recovery well, pump, air stripper tower, sump, and all air stripper components (including blower operation tests), wet wells, transfer pumps,

conveyance piping, and outfall cascade. The required annual PRR certification should be based on recordings and observations made during this annual GWETS inspection.

- If the GWETS goes off-line for any reason, the Department must be notified within 24 hours. If the shutdown is due to a scheduled inspection or preventative maintenance visit, the Department must be notified seven (7) days in advance.

6) **General Remedial Program Requirements**

a) Compliance with 6 NYCRR Part 375 is mandatory.

SCM-Cortlandville

2009 Periodic Review Report Response Letter

Attachment C

Site Management Plan Outline

Suggested Outline for a Site Management Plan (SMP)

A **Site Management Plan** (SMP) may contain some or all of the following sections:

1.0 Introduction
  1.1 Overview of the SMP
2.0 Site Description
  2.1 Site History and Remedy Description
  2.2 Remedial Action Objectives
  2.3 Site Map
  2.4 Site Location Map
3.0 Institutional and Engineering Controls (IC and EC) Management Plan
  3.1 Description of Requirements
  3.2 Documents and Recording Procedures
    3.210 Discharge Permit
    3.211 Part 360 Permit
    3.212 Site Security (other than fencing) Requirements
    3.213 Local Permit
    3.214 Zoning Restriction
    3.215 Deed Restriction
    3.216 Deed Notice
    3.217 Conservation Easement
    3.218 Groundwater Use Restrictions
    3.219 Condemnation of Property Notice
    3.220 Public Health Advisories
  3.3 IC and EC On-site Location(s) Map
  3.4 IC and EC Annual Certification Requirements
4.0 Monitoring Plan
  4.1 Groundwater Monitoring Plan Design
    4.11 Hydrogeology Description
    4.12 Basis of Well Locations
    4.13 Elements of Monitoring Plan - Well Location Maps, GPS Coordinates, etc.
    4.14 Well Construction Diagrams (including Well Logs and Boring Logs)
  4.2 Environmental Effectiveness Monitoring Requirements
    4.21 General Overview
    4.22 Sampling Program and Procedures - Sample Types, Locations, Number and Frequency
      4.2201 Surface Water
      4.2202 Groundwater
      4.2203 Leachate
      4.2204 Gas
      4.2205 Sediment
      4.2206 Biota
      4.2207 Wetland or other Habitat
      4.2208 Air
      4.2209 Soil
      4.2210 MNA
      4.2211 Indoor Air
    4.23 Well Sampling and Maintenance Procedures
      4.231 Purging Volumes and Methods
      4.232 Well Inspection and Maintenance Requirements
      4.233 Decommissioning Procedures (per DEC's guidance)
  4.3 On-Site Treatment Plant Performance Monitoring Requirements and Procedures
    4.31 Influent Samples
    4.32 Effluent Samples
    4.33 Discharge Samples

4.34 Water Level Measurements
4.4 Analysis Requirements
4.41 Analytical Schedules and Methods
4.42 Laboratory QA/QC Samples - Requirements and Records Management Information
4.43 Data Reporting and Deliverables Requirements
4.44 Special Analytical Protocols
4.45 Laboratory Audit and Certification Requirements
4.46 Data Audit Requirements
4.5 Evaluation of Monitoring Results - Statistical Methods Used
4.6 Historic Records - Pre-Site Management Reports, Data and Contour Maps, etc.
4.7 Reports
5.0 Operation and Maintenance Plan
5.1 General Description
5.2 Operation and Maintenance Manual - O&M Manuals are recommended for all sites. The complexity of the site remedy(s) will dictate the detail required in the Manual, and three (3) separate volumes may not be necessary for simple remedies. **The following is a suggested outline for an O&M Manual:**
Volume I: General Manual (as outlined below)

Volume II: Manufacturer's Catalog-Cuts / Manuals (as necessary)

Volume II consists of all catalog-cuts, for all fixed and mobile equipment, necessary to operate and maintain the treatment facility, field pumps, leachate collection system, etc. Catalog-cuts include maintenance procedures, spare parts lists, and any special tool requirements, as well as vendor / service contact / local dealer information including addresses and telephone numbers.
Volume III: Site-Specific Standard Operating Procedures (SOP's) / As-built Drawings (as necessary)

Volume III is a section which may be necessary based on site-specific O&M activities and conditions, such as:

i. When the equipment catalog-cuts are not detailed enough to perform certain maintenance;
ii. When special replacement parts are required, such as when site-contaminant-waste material interferes with manufacturer's gasket material, requiring the use of different material and/or more frequent replacement;
iii. When water conditions warrant special maintenance;
iv. When venting equipment requires special attention; and/or
v. When there are many as-built drawings, or operation requires special attention or sequencing or finesse.

Volume I of the O&M Manual may include, but is not limited to, the following:

5.21 System Procedures
5.211 General System Startup Procedures
5.212 Procedures for Handling Upset Conditions
5.213 Shutdown Procedures
5.22 Site Maintenance Requirements
5.2201 Site Fence
5.2202 Site Signs
5.2203 Site Cover
5.2204 Runoff Control Structures
5.2205 Settlement & Subsidence Control Evaluation
5.2206 Flexible Membrane Liner Evaluation and Repairs
5.2207 Groundwater Monitoring System
5.2208 Gas Venting System
5.2209 Leachate Pumping System
5.2310 Vehicle Access Road
5.2311 Vermin and Vector Observations
5.2312 Treatment Plant Structures
5.2313 Treatment Facility Components

- 5.23 Preventive Maintenance Schedule
- 5.24 Vendor Contact Information
- 5.25 Disposal Procedures for Used and Waste Materials
- 5.26 Inspections - Schedules and Requirements (including for during Extreme Conditions)
- 5.27 O&M Report Requirements
  - 5.271 Monthly Reports
  - 5.272 Quarterly Reports
  - 5.273 Annual Reports
- 5.28 5-Year Review Requirements

6.0 Health and Safety Plan / Emergency Contingency Plan
- 6.1 Site Safety Plan
  - 6.11 Emergency Telephone Numbers (Police, Fire, Rescue Squad, Hospital, Site Manager, Site Safety Officer, DER Project Contact and Regional Representative)
  - 6.12 Map and Directions to Nearest Health Facility
  - 6.13 Special Site-Specific Safety Warnings (Do's and Don'ts)
- 6.2 Material Safety Data Sheets
  - 6.21 Risk Analysis and Hazard Response Procedures
    - 6.211 Emergency Spills
    - 6.212 Fire / Explosion
    - 6.213 Personal Injury
    - 6.214 Toxic Exposures
- 6.3 Emergency Evacuation Plan
- 6.4 Emergency Public Notification Requirements and Procedures
- 6.5 Site Security

7.0 Citizen Participation Plan
- 7.1 Citizen Participation Requirements
- 7.2 Contacts List
- 7.3 General Site Fact Sheet
- 7.4 Records Management Information (List / Location of Relevant Site Remedy Documents , e.g., RI(s), ROD(s), Consent Orders, Decrees, ICs, etc.)

8.0 Records / Forms (Sample Checklists, Logs, etc.)
- 8.1 Operating Records / Inspections Checklists
- 8.2 Monitoring (Environmental and Hydrogeological) Records
- 8.3 Maintenance Records
- 8.4 Leachate Disposal Records
- 8.5 Maintenance Costs Records
- 8.6 Health / Emergency Incident Reports
- 8.7 Contingency Plan Revision Logs

9.0 Site Management Personnel Information
- 9.1 Organization Information
  - 9.11 Chain of Command Information
- 9.2 Manpower Requirements
- 9.3 Responsibilities and Duties
- 9.4 Qualifications Required
- 9.5 Training (including Health & Safety) Requirements
- 9.6 Personnel Protection (Equipment, Medical & Air Monitoring, Work Zones, and DECON) Requirements

L:\DER\eDocs\DER-General\DER_Guidance\Site_Management_Guidance\PRR (SMP and SM WA) Training\SMP guidance\Site Management Plan Outline (DERTR appendix 6b).wpd