

RECORD OF DECISION

Crystal Cleaners
State Superfund Project
Corning, Steuben County
Site No. 851022
March 2011



Prepared by
Division of Environmental Remediation
New York State Department of Environmental Conservation

DECLARATION STATEMENT - RECORD OF DECISION

Crystal Cleaners
State Superfund Project
Corning, Steuben County
Site No. 851022
March 2011

Statement of Purpose and Basis

This document presents the remedy for the Crystal Cleaners site, a Class 2 inactive hazardous waste disposal site. The remedial program was chosen in accordance with the New York State Environmental Conservation Law and Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York (6 NYCRR) Part 375, and is not inconsistent with the National Oil and Hazardous Substances Pollution Contingency Plan of March 8, 1990 (40CFR300), as amended.

This decision is based on the Administrative Record of the New York State Department of Environmental Conservation (the Department) for the Crystal Cleaners site and the public's input to the proposed remedy presented by the Department. A listing of the documents included as a part of the Administrative Record is included in Appendix B of the ROD.

Description of Selected Remedy

During the course of the investigation certain actions, known as interim remedial measures (IRMs), were undertaken at the above referenced site. An IRM is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before completion of the remedial investigation (RI) or feasibility study (FS). The IRM(s) undertaken at this site are discussed in Section 5.2.

Based on the implementation of the IRM(s), the findings of the investigation of this site indicate that the site no longer poses a threat to human health or the environment; therefore No Further Action is the selected remedy. The remedy may include continued operation of a remedial system if one was installed during the IRM and the implementation of any prescribed institutional controls/engineering controls (ICs/ECs) that have been identified as being part of the remedy for the site.

The IRM(s) conducted at the site attained the remediation objectives identified for this site in Exhibit B for the protection of public health and the environment.

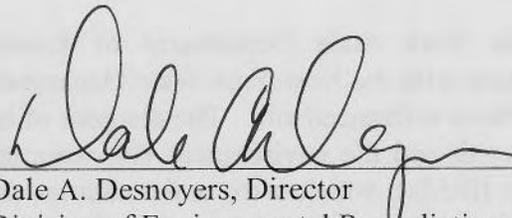
New York State Department of Health Acceptance

The New York State Department of Health (NYSDOH) concurs that the remedy for this site is protective of human health.

Declaration

The selected remedy is protective of human health and the environment, complies with State and Federal requirements that are legally applicable or relevant and appropriate to the remedial action to the extent practicable, and is cost effective. This remedy utilizes permanent solutions and alternative treatment or resource recovery technologies, to the maximum extent practicable, and satisfies the preference for remedies that reduce toxicity, mobility, or volume as a principal element.

MAR 31 2011



Date

Dale A. Desnoyers, Director
Division of Environmental Remediation

RECORD OF DECISION

Crystal Cleaners
Corning, Steuben County
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SECTION 1: SUMMARY AND PURPOSE

The New York State Department of Environmental Conservation (the Department), in consultation with the New York State Department of Health (NYSDOH), is proposing a remedy for the above referenced site. The disposal of hazardous wastes at the site resulted in threats to public health and the environment that were addressed by actions known as interim remedial measures (IRMs), which were undertaken at the site. An IRM is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before completion of the remedial investigation (RI) or feasibility study (FS). The IRMs undertaken at this site are discussed in Section 5.2.

Based on the implementation of the IRM(s), the findings of the investigation of this site indicate that the site no longer poses a threat to human health or the environment; therefore No Further Action is the remedy selected by this Record of Decision (ROD). A No Further Action remedy may include site management, which will include continued operation of any remedial system installed during the IRM and the implementation of any prescribed controls that have been identified as being part of the proposed remedy for the site.

The IRM(s) conducted at the site attained the remediation objectives identified for this site, which are presented in the attached exhibits, for the protection of public health and the environment. This ROD identifies the IRM(s) conducted and discusses the basis for No Further Action.

The New York State Inactive Hazardous Waste Disposal Site Remedial Program (also known as the State Superfund Program) is an enforcement program, the mission of which is to identify and characterize suspected inactive hazardous waste disposal sites and to investigate and remediate those sites found to pose a significant threat to public health and environment.

The Department has issued this document in accordance with the requirements of New York State Environmental Conservation Law and 6 NYCRR Part 375. This document is a summary of the information that can be found in the site-related reports and documents.

SECTION 2: SITE DESCRIPTION AND HISTORY

Location: The Crystal Cleaners Site is located at 343 West Pulteney Street in a mixed commercial and residential area near the western boundary of the City of Corning, Steuben

County.

Site Features: The main site feature is a one story vacant retail building that was the location of the former dry cleaner, as well as a gas station and a Laundromat. Residential properties are located to north, south and east of the Site with a commercial property located to the west of the Site.

Current Zoning/Use(s): The site is currently inactive, and is zoned for commercial use.

Historical Use(s): A dry cleaner occupied this site from 1973 until 2007. Due to the detection of chlorinated solvents in the City of Corning's water supply wells # 1 and # 2 (Figure 1) a State funded Site Characterization (SC) investigation was completed in 2007 to determine the source of the contamination. As a result of the SC this site was listed a Class 2 site in the Registry of Inactive Hazardous Waste Disposal Sites in 2008.

This site has also been the location of a gas station from the early 1970's until 2008. In 1992, as a result of a failed tank/system test, four 4000 gallon gas tanks, located on the south side of the property, were removed and replaced. This tank removal also resulted in the removal of approximately 600 tons of contaminated soil. In 2008, when the gas station closed, the tanks installed in 1992 were removed and the excavation backfilled.

Site Geology and Hydrogeology: The Site is located in Cohocton/Chemung River Valley, which runs east-west. Overburden soils at the Site consisted primarily of silts, sands and gravel. The Chemung River is a local groundwater discharge area. Groundwater at the site was encountered at approximately 10 to 12 feet below ground surface (bgs), and flows to the southeast towards the Chemung River.

A site location map is attached as Figure 1.

SECTION 3: LAND USE AND PHYSICAL SETTING

The Department may consider the current, intended, and reasonably anticipated future land use of the site and its surroundings when evaluating a remedy for soil remediation. For this site, alternatives (or an alternative) that restrict(s) the use of the site to restricted-residential use (which allows for commercial use and industrial use) as described in Part 375-1.8(g) is/are being evaluated in addition to an alternative which would allow for unrestricted use of the site.

A comparison of the results of the investigation to the appropriate standards, criteria and guidance values (SCGs) for the identified land use and the unrestricted use SCGs for the site contaminants is included in the Tables for the media being evaluated in Exhibit A.

SECTION 4: ENFORCEMENT STATUS

Potentially Responsible Parties (PRPs) are those who may be legally liable for contamination at a site. This may include past or present owners and operators, waste generators, and haulers.

The PRPs for the site, documented to date, include:

Oliverae, LLC

The PRPs for the site declined to implement a remedial program when requested by the Department. After the remedy is selected, the PRPs will again be contacted to assume responsibility for the remedial program. If an agreement cannot be reached with the PRPs, the Department will evaluate the site for further action under the State Superfund. The PRPs are subject to legal actions by the state for recovery of all response costs the state has incurred.

Due to the contamination of a Public Supply Well and the associated costs, this Site has been referred to the Departments attorneys for National Resource Damages recovery.

SECTION 5: SITE CONTAMINATION

5.1: Summary of the Remedial Investigation

A Remedial Investigation (RI) has been conducted. The purpose of the RI was to define the nature and extent of any contamination resulting from previous activities at the site. The field activities and findings of the investigation are described in the RI Report.

The following general activities are conducted during an RI:

- Research of historical information,
- Geophysical survey to determine the lateral extent of wastes,
- Test pits, soil borings, and monitoring well installations,
- Sampling of waste, surface and subsurface soils, groundwater, and soil vapor,
- Sampling of surface water and sediment,
- Ecological and Human Health Exposure Assessments.

5.1.1: Standards, Criteria, and Guidance (SCGs)

The remedy must conform to promulgated standards and criteria that are directly applicable or that are relevant and appropriate. The selection of a remedy must also take into consideration guidance, as appropriate. Standards, Criteria and Guidance are hereafter called SCGs.

To determine whether the contaminants identified in various media are present at levels of concern, the data from the RI were compared to media-specific SCGs. The Department has developed SCGs for groundwater, surface water, sediments, and soil. The NYSDOH has developed SCGs for drinking water and soil vapor intrusion. The tables found in Exhibit A list the applicable SCG in the footnotes. For a full listing of all SCGs see:

5.1.2: RI Information

The analytical data collected on this site includes data for:

- groundwater
- soil
- soil vapor
- indoor air

The data have identified contaminants of concern. A "contaminant of concern" is a hazardous waste that is sufficiently present in frequency and concentration in the environment to require evaluation for remedial action. Not all contaminants identified on the property are contaminants of concern. The nature and extent of contamination and environmental media requiring action are summarized in Exhibit A. Additionally, the RI Report contains a full discussion of the data. The contaminant(s) of concern identified at this site is/are:

tetrachloroethylene (pce)
trichloroethene (tce)

vinyl chloride
dichloroethylene

Based on the investigation results, comparison to the SCGs, and the potential public health and environmental exposure routes, certain media and areas of the site required remediation. These media were addressed by the IRM(s) described in Section 6.2. More complete information can be found in the RI Report and the IRM Construction Completion Report.

5.2: Interim Remedial Measures

An interim remedial measure (IRM) is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before issuance of the Record of Decision.

The following IRM(s) has/have been completed at this site based on conditions observed during the RI.

1. IRM - Sub Slab Depressurization System (SSD) Installation

The Department performed Soil Vapor Intrusion (SVI) sampling in 2009 and 2010 off-site, within the groundwater contamination plume starting at the former drycleaner and extending to the water supply wells. Seventeen homeowners agreed to have their homes sampled. The vacant on-site building was also sampled. Based on the sampling results, no further action was recommended for 15 residential structures, continued monitoring was recommended for one residential structure and the installation of a sub-slab depressurization (SSD) system was recommended at one residential structure.

5.3: Summary of Human Exposure Pathways

This human exposure assessment identifies ways in which people may be exposed to site-related contaminants. Chemicals can enter the body through three major pathways (breathing, touching or swallowing). This is referred to as *exposure*.

People are not drinking contaminated groundwater because the public water supply that draws water from this well field is treated before the water is distributed to consumers. In addition, there are no known private water wells in the area. Volatile organic compounds in the soil may move into the soil vapor (air spaces within the soil), which in turn may move into overlying buildings and affect the indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. Air sampling at one vacant on-site and one off-site building has shown that the indoor air is being affected by soil vapor intrusion. However, concentrations of site-related contaminants in the indoor air of those buildings were within typical background concentrations and did not exceed applicable guidelines. A sub-slab depressurization system (a system that ventilates/removes air beneath the building) has been installed at the off-site building to prevent the inhalation of site-related contamination. In addition, impacts to soil vapor beneath an off-site building were identified and continued monitoring of this structure is recommended to verify mitigation actions are not needed.

5.4: Summary of Environmental Assessment

This section summarizes the assessment of existing and potential future environmental impacts presented by the site. Environmental impacts may include existing and potential future exposure pathways to fish and wildlife receptors, wetlands, groundwater resources, and surface water.

Based upon the resources and pathways identified and the toxicity of the contaminants of ecological concern at this site, a Fish and Wildlife Resources Impact Analysis (FWRIA) was deemed not necessary for OU 01.

Based upon investigations conducted to date, the primary contaminants of concern for this site include tetrachloroethene (PCE) and its associated daughter products. PCE was found in the on-site soil but, at concentrations well below the soil cleanup objective (SCO) for unrestricted use (1.3 ppm).

PCE and its associated degradation products are also found in groundwater at the west side of the site, moderately exceeding groundwater standards (typically 5 ppb), with a maximum concentration of 430 ppb. A moderate amount of PCE from the site has migrated off-site and has impacted the City of Corning's Public Supply Wells #1 and #2. Due to presence of contamination the City of Corning installed an air stripper on the wells to remove VOCs from the drinking water and to ensure that it meets drinking water standards before being distributed to the public.

The site is located in a residential/commercial area in the City of Corning. There are no fish or wildlife receptors present.

SECTION 6: SUMMARY OF SELECTED REMEDY

The Department believes that the IRM has accomplished the remediation goals and satisfied the SCGs for the site provided that it continues to be operated and maintained in a manner consistent with the design.

Based on the results of the investigations at the site, the IRM that has been performed, and the evaluation presented here, the Department is proposing No Further Action with continued operation of the SSD system and the implementation of ICs/ECs as the proposed remedy for the site. The Department believes that this remedy is protective of human health and the environment and satisfies the remediation objectives described in Exhibit B.

Table 3 shows how each of the Remedial Objectives has been addressed.

The elements of the IRM already completed and the institutional and engineering controls are listed below:

1. Imposition of an institutional control in the form of an environmental easement for the controlled property that will:

a. requires the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3).

b. allows the use and development of the controlled property for restricted residential, commercial and industrial uses as defined by Part 375-1.8(g), although land use is subject to local zoning laws;

c. restricts the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the Department, NYSDOH or County DOH;

d. requires compliance with the Department approved Site Management Plan;

3. A Site Management Plan is required, which will include the following:

a. an Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective:

Institutional Controls:

The Environmental Easements discussed above.

Engineering Controls:

The sub-slab depressurization system discussed above.

This plan includes, but may not be limited to:

- i. an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
 - ii description of the provisions of the environmental easements including any land use and groundwater use restrictions;
 - iii. a provision for evaluation of the potential for soil vapor intrusion should the on-site building be occupied and for any buildings developed on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;
 - iv. provisions for the management and inspection of the identified engineering controls;
 - v. maintaining site access controls and Department notification; and
 - vi. the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls;
- b. a Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:
- i. monitoring of groundwater to assess the performance and effectiveness of the remedy;
 - ii. a schedule of monitoring and frequency of submittals to the Department;
 - iii. monitoring for vapor intrusion for any buildings occupied or developed on the site, as may be required pursuant to item iii above.
 - iv. provision to evaluate the potential for vapor intrusion for off-site buildings, including provision for implementing actions recommended to address exposures.

Exhibit A

Nature and Extent of Contamination

This section describes the findings of the Remedial Investigation for all environmental media that were evaluated. As described in Section 6.1.2, samples were collected from various environmental media to characterize the nature and extent of contamination.

For each medium, a table summarizes the findings of the investigation. The tables present the range of contamination found at the site in the media and compares the data with the applicable SCGs for the site.

Waste/Source Areas

As a result of the previous Site operations, as a dry cleaner, chlorinated solvents were released to the ground surface, where they flowed/leaked into the soils at the Site. Site investigations identified the remains of a source area on the west side of the on-site building along Townsend Avenue. Due to the course nature of the on-site soils the contamination has migrated into the groundwater and has moved south to the public supply wells.

A significant portion of the waste/source area identified at the site is no longer present. Therefore, no remedial alternatives will be evaluated to address the waste/source area.

Groundwater

Samples were collected from overburden groundwater (which was encountered approximately 10 to 12 feet below grade surface (bgs) during the RI. The samples were collected to assess the groundwater conditions on-site in the vicinity of the former dry cleaner as well as off-site and downgradient of the site. The groundwater samples were submitted for analytical analysis for VOCs, SVOC and metals.

The groundwater sampling results indicate that the primary contaminants are VOCs in the overburden groundwater associated with the historic use of PCE at the former dry cleaner. The groundwater VOC plume has been delineated to originate on the west side of the site property and continues downgradient toward the Chemung River and the City of Corning's Public Supply Wells #1 and #2. Figure 4 illustrate the contaminated groundwater plume delineations compiled from data collected during the RI.

The most frequent SCG exceedences were tetrachloroethene (PCE) and its associated daughter products including cis-1,2-dichloroethene (cis-1,2-DCE), trichloroethene (TCE) and vinyl chloride (VC). The highest concentrations of contaminants were found on the west side of the site building along Townsend Ave.

Concentrations of PCE and its associated daughter products exceed of their applicable SCGs in the City of Corning's Public Supply Wells #1 and #2. An air stripper is currently in place on the wells to remove VOCs from the drinking water to ensure that it meets drinking water standards before being distributed to the public.

Iron, Manganese and Sodium were found at levels above SCGs. These metals are naturally occurring and are not related to any on-site contamination. No SVOC exceed their applicable SCGs.

Table #1 - Groundwater

Detected Constituents	Concentration Range Detected (ppb) ^a	SCG ^b (ppb)	Frequency Exceeding SCG
VOCs			
cis-1,2-Dichloroethene	1.6 - 120	5	12/35
Tetrachloroethene	3.9 -430	5	17/35
Trichloroethene	0.57 - 34	5	8/35
Vinyl Chloride	1.6 – 4.5	2	2/35

a - ppb: parts per billion, which is equivalent to micrograms per liter, ug/L, in water.

b- SCG: Standard Criteria or Guidance - Ambient Water Quality Standards and Guidance Values (TOGs 1.1.1), 6 NYCRR Part 703, Surface water and Groundwater Quality Standards, and Part 5 of the New York State Sanitary Code (10 NYCRR Part 5).

Because of the proximity of the public supply wells any remedial action that involved the injection of chemical oxidant (or similar) to treat the groundwater was not considered. This was rejected because of concerns of introducing an oxidant (or similar) into the public supply wells. In addition, people are not drinking contaminated groundwater because the public water supply that draws water from this well field is treated before the water is distributed to consumers.

Soil

Subsurface soil samples were collected at the site during the RI. Subsurface soil samples were collected from a depth of 4 - 55 feet to assess soil contamination impacts to groundwater. The results indicate that soils at the site do not exceed the unrestricted SCG with the exception of xylene. Xylene is present at only one location at a concentration exceeding SCGs and is not indicative of the relatively low concentrations found at 13 of the samples collected at the site. No SVOC detections exceed the NYS Part 375 Unrestricted Residential Use SCO. One detection of lead exceeded the NYS Part 375 Unrestricted Use SCO.

Table #2 - Soil

Detected Constituents	Concentration Range Detected (ppm) ^a	Unrestricted SCG ^b (ppm)	Frequency Exceeding Unrestricted SCG	Restricted Use SCG ^c (ppm)	Frequency Exceeding Restricted SCG
VOCs					
Tetrachloroethene	0.0015-0.860	1.3	0/14	1.3	0/14
Trichloroethene	0.0053-0.0053	0.47	0/14	0.47	0/14
Xylene (mixed)	0 – 140	0.26	1/14	1.6	1/14

a - ppm: parts per million, which is equivalent to milligrams per kilogram, mg/kg, in soil;

b - SCG: Part 375-6.8(a), Unrestricted Soil Cleanup Objectives.

c - SCG: Part 375-6.8(b), Restricted Use Soil Cleanup Objectives for the Protection of Groundwater.

No site-related soil contamination of concern was identified during the RI. Therefore, no remedial alternatives need to be evaluated for soil.

Soil Vapor

The evaluation of the potential for soil vapor intrusion resulting from the presence of site related groundwater contamination was investigated by the sampling of sub-slab soil vapor under structures, indoor air inside structures and ambient outside air. At this site due to the presence of buildings in the impacted area a full suite of samples were collected to evaluate whether actions were needed to address exposure via soil vapor intrusion.

The soil vapor intrusion sampling was conducted during the 2009 and 2010 heating seasons and included the sampling of 17 structures. For each structure sampled, sub-slab soil vapor and indoor air samples were collected in order to assess the potential for exposure via soil vapor intrusion. Outdoor air samples were collected concurrently with the sub-slab soil vapor and indoor air samples in order to evaluate outdoor air (background) quality in the vicinity of the study area. The results of the soil vapor intrusion sampling primarily indicated the presence of PCE and TCE. Based on the SVI sampling results, no VOCs detected in an indoor air samples exceeded its respective SCG. Site related VOCs were found in sub-slab vapor at structures both on- and off-site.

Sample results were evaluated in accordance with the NYSDOH Soil Vapor Intrusion Guidance in order to determine whether actions were needed to address exposure via soil vapor intrusion. Based on the sampling results, actions, including installation of a sub-slab depressurization system at one off -site building and continued monitoring at another off-site structure, was recommended. The nature and extent of the soil vapor contamination has been delineated based on the findings of the soil vapor intrusion investigations as well as the evaluation of the groundwater plume delineation.

Soil vapor contamination identified during the RI was addressed during the IRM described in Section 6.2.

Exhibit B

SUMMARY OF THE REMEDIATION OBJECTIVES

The objectives for the remedial program have been established through the remedy selection process stated in 6 NYCRR Part 375. The goal for the remedial program is to restore the site to pre-disposal conditions to the extent feasible. At a minimum, the remedy shall eliminate or mitigate all significant threats to public health and the environment presented by the contamination identified at the site through the proper application of scientific and engineering principles.

The remedial objectives for this site are:

Groundwater

RAOs for Public Health Protection

- Prevent ingestion of groundwater with contaminant levels exceeding drinking water standards.
- Prevent contact with, or inhalation of volatiles, from contaminated groundwater.

RAOs for Environmental Protection

- Restore ground water aquifer to pre-disposal/pre-release conditions, to the extent practicable.

Soil Vapor

RAOs for Public Health Protection

- Mitigate impacts to public health resulting from existing, or the potential for, soil vapor intrusion into buildings at a site.

Table #3

Remedial Objectives	Remedial Action
1. Prevent ingestion of groundwater with contaminant levels exceeding drinking water standards.	- A municipal air stripper is currently in place on the impacted public supply wells. Groundwater use restrictions.
2. Prevent contact with, or inhalation of volatiles, from contaminated groundwater.	- The installation of a sub-slab depressurization (SSD) system at an off-site structure. Provision to evaluate the potential for vapor intrusion for off-site buildings, including provision for implementing actions recommended to address exposures.
3. Restore ground water aquifer to pre-disposal/pre-release conditions, to the extent practicable.	- A Site Management Plan that includes monitoring of groundwater.
4. Mitigate impacts to public health resulting from existing, or the potential for, soil vapor intrusion into buildings at a site.	- A provision for evaluation of the potential for soil vapor intrusion should the on-site building be occupied and for any buildings developed on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion.

APPENDIX A

Responsiveness Summary

RESPONSIVENESS SUMMARY

**Crystal Cleaners
State Superfund Project
City of Corning, Steuben County, New York
Site No. 851022**

The Proposed Remedial Action Plan (PRAP) for the Crystal Cleaners site, was prepared by the New York State Department of Environmental Conservation (the Department) in consultation with the New York State Department of Health (NYSDOH) and was issued to the document repositories on March 01, 2011. The PRAP outlined the remedial measure proposed for the contaminated groundwater at the Crystal Cleaners site.

The release of the PRAP was announced by sending a notice to the public contact list, informing the public of the opportunity to comment on the proposed remedy.

A public meeting was held on March 17, 2011, which included a presentation of the remedial investigation/feasibility study (RI/FS) for the Crystal Cleaners site as well as a discussion of the proposed remedy. The meeting provided an opportunity for citizens to discuss their concerns, ask questions and comment on the proposed remedy. These comments have become part of the Administrative Record for this site.

This responsiveness summary responds to all questions and comments raised during the public comment period. The following are the comments received, with the Department's responses:

COMMENT 1: Which way is groundwater flowing?

RESPONSE 1: Groundwater flow is to the southeast. Figure 2 of the ROD Exhibits shows the groundwater flow arrow to the left of the site.

COMMENT 2: What's going to happen to the site? Does the owner plan to develop it?

RESPONSE 2: The Department will require an institutional control, in the form of an environmental easement as outlined in the ROD, be placed on the property by the owner to restrict certain uses of the site.

COMMENT 3: Is the off-site residence with the sub slab depressurization system and the residence requiring monitoring the same site? Which buildings are they?

RESPONSE 3: No. They are separate privately owned properties.

COMMENT 4: What is the toxicity difference between PERC and radon coming into the home?

RESPONSE 4: The risk of cancer for an individual depends upon many factors, including the potency of a substance to cause cancer, the amount, duration and frequency of exposure, and the characteristics of the exposed individual (e.g., age, sex, diet, family traits, lifestyle, genetic

background, the presence of other chemicals in their body (e.g., alcohol, prescription drugs), and state of health). Due to differences between the types of cancer that might result from exposure to each compound, the risk factors (i.e., something that's likely to increase a person's chances of developing a disease) for these types of cancers, and the differences in the units used to describe each compound's potency to cause cancer, a direct comparison of the toxicity values is not provided. Rather, for information about risks associated with exposures to radon, the reader is referred to the NYSDOH's fact sheet on radon (included at the following website: http://www.nyhealth.gov/environmentallindoors/vapor_intrusion/fact_sheets/) and USEPA's website on radon (<http://www.epa.gov/radon/pubs/citguide.html#risk>). For information on risks associated with exposures to PERC, the reader is referred to the NYSDOH's Tetrachloroethene Fact Sheet, which is available on the NYSDOH's website at:

<http://www.nyhealth.gov/environmental/chemicals/tetrachloroethene/>

COMMENT 5: Since exposure can occur by touching of possible contaminant, if the property is re-developed and some of it is gone, is it all at a level of no concern?

RESPONSE 5: No site-related soil contamination of concern was identified during the remedial investigation. Contaminants in soil are at levels that are considered protective of public health for commercial use of the site property. In fact, with the exception of xylene, the levels of contaminants are considered protective of public health for unrestricted use of the site property.

The property use will remain commercial; therefore, no remedial actions are needed to address exposure to soil at the site.

COMMENT 6: What is the process if we wanted to re-pave?

RESPONSE 6: The remedy requires the development of a site management plan (SMP) which will include an excavation plan, which will detail the provisions for management of future excavations in areas of remaining contamination.

COMMENT 7: If you have to put in a sub-slab depressurization system anyway, why conduct testing?

RESPONSE 7: The remedy includes the provision for the evaluation of the potential for soil vapor intrusion should the on-site building be occupied and for any buildings developed on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion. If a sub-slab depressurization is installed in a new building developed on the site, then pressure field testing will need to be conducted to ensure that the system is working effectively.

COMMENT 8: If someone were to drink or eat something with PERC, what would be the symptoms?

RESPONSE 8: People can be exposed to PERC without showing any symptoms of PERC exposure. A person would show symptoms of PERC exposure only if his/her total exposure, including exposure from water and food, was large enough to cause symptoms. In humans and animals, the major effects of PERC exposure are on the central nervous system, kidney, liver, and possibly the reproductive system. These effects vary with the level and length of exposure. For additional information on risks associated with exposures to PERC, see the NYSDOH's Tetrachloroethene Fact

Sheet, which is available on the NYSDOH's website at: <http://www.nyhealth.gov/environmental/chemicals/tetrachloroethene/>

COMMENT 9: Would it [perc] act on the liver?

RESPONSE 9: The liver is the organ responsible for breaking down PERC into other chemicals that can be excreted in urine. If the liver is exposed to high levels of PERC, the PERC and the breakdown products can damage the liver. Thus, the liver is one of the major targets of PERC in the body. The principal effects of PERC on the human liver are abnormal liver function tests, inflammation, enlarged liver, cell damage, and cell death. Whether these effects would occur in a person exposed to PERC depends on the level and length of exposure. For additional information on liver effects, see the NYS DOH Tetrachloroethene Fact Sheet (cited in Response 8).

COMMENT 10: Do you find active dry cleaners that are using perchloroethylene? Are working environments as high as or higher than what is allowed?

RESPONSE 10: Yes, many active dry cleaners still use perchloroethylene (PERC). Exposures in the work place fall under the jurisdiction of the Occupational Safety and Health Administration (OSHA) and may have higher levels than facilities which are a work place using PERC. OSHA has established a permissible exposure limit, which is the highest level (averaged over a normal workday) to which a worker may be exposed, of 680, 328 micrograms per cubic meter over an 8-hour workday.

COMMENT 11: At 100ug/m³ per home as the highest, you need to do something, not just OSHA, but DOH.

RESPONSE 11: NYSDOH recommends that the average air level in a residential community not exceed 100 micrograms of PERC per cubic meter of air (100 mcg/m³), considering continuous lifetime exposure and sensitive people. The purpose of the guideline is to help guide decisions about the nature of efforts to reduce PERC exposure. Reasonable and practical actions should be taken to reduce PERC exposure when indoor air levels are above background, even when they are below the guideline of 100 mcg/m³. The urgency to take actions increases as indoor air levels increase, especially when air levels are above the guideline

COMMENT 12: Who issued the permit [for active dry cleaners emissions]?

RESPONSE 12: The New York State Department of Environmental Conservation, Division of Air Resources.

COMMENT 13: We (Richard Davis, owner Crystal Cleaners) purchased it in 1996 until 2007. From 1982 until 1986 it was owned by a company called One Hour Martinizing Technique. Between 1973 and 1982, another company under DEC registration for dry cleaners. It was inspected every year and tested for exposures within limits. Before then, I can't say. I don't use perc anymore in our new location, but I've been exposed for 20 years and I am a prostrate survivor, but am in good health.

RESPONSE 13: The history of the site has been modified to acknowledge this comment.

COMMENT 14: What kind of testing [for perc] did the DEC do when they inspected the dry cleaner?

RESPONSE 14: This comment was directed to Mr. Richard Davis, owner Crystal Cleaners. See his response below in Comment 15.

COMMENT15: They (DEC) would come in with a monitoring device. If they found vapor leaks, you would need to fix the leaks. If any contamination was found coming from the machine or storage containers, you would need to clean it up and notify the DEC. They brought in more sensitive devices and hung a badge for two hours to test exposure in atmosphere. These regulations were in effect around 1996 or 1998. We put in a new machine with floor and a containment vessel, a splash pan, and had the floor poured around it and up the walls, so there was no possibility of anything getting in that.

RESPONSE 15: No response necessary.

COMMENT 16: For DOH, you monitored the building and recommended a system, but [the results are] not high enough to remove people from their homes?

RESPONSE 16: Correct, the homes did not need to be vacated due to the results from the soil vapor intrusion investigation. The recommended actions placed on those buildings are protective of public health

COMMENT 17: The concentrations of PERC found in the indoor air didn't reach a level of concern for exposure?

RESPONSE 17: The concentrations of PERC detected in the indoor air of the homes you are referencing were consistent with levels commonly found in homes and do not represent a health concern. The recommended actions were based on the concentrations of PERC in the sub-slab vapor samples, in conjunction with the results of environmental samples collected near each particular home.

COMMENT 18: It wasn't found in upper floors, but found in the basement?

RESPONSE 18: Indoor air sampling was collected in the basement only. Sampling of the basement air demonstrates the worst case scenario with respect to potential for exposure via soil vapor intrusion.

COMMENT 19: Do you recommend for precaution against soil vapor intrusion, putting in a system for a new building?

RESPONSE 19: The ROD includes a provision for evaluation of the potential for soil vapor intrusion should the on-site building be occupied and for any buildings developed on the site, with a provision for implementing necessary actions (e.g. mitigation) to address any exposures related to soil vapor intrusion identified by the evaluation.

COMMENT 20: Are your slides available?

RESPONSE 20: An electronic copy of the slides was provided to Mr. Andrew D. Lent of Day Environmental, Inc., after the conclusion of the public meeting.

COMMENT 21: When was the air stripper put on the water system?

RESPONSE 21: The City of Corning installed the system in the early 1980s.

COMMENT 22: Is the one on Well #2 being used?

RESPONSE 22: Yes. Both Well #1 and Well #2 utilize the same air stripper.

COMMENT 23: Is Well #2 at a level that they have to use it? Not a couple of years ago? The level is not high enough; Well #1 is just barely over the level.

RESPONSE 23: Current levels of PCE contamination in Well #2 require the use of the air stripper. While PCE levels in Well #2 have fluctuated over the years, the levels of PCE in the well still require the continued operation of the air stripper. Testing during the RI/FS found PCE in Well #1 at 2.5 ppb, compared to the drinking water standard of 5 ppb.

COMMENT 24: What is the concentration of contamination found in the public water supply wells?

RESPONSE 24: Testing during the RI/FS found PCE in Well #1 at 2.5 ppb and in Well #2 at 15 ppb.

COMMENT 25: The two properties across the street from the hot spots, did they show any positives in the soil?

RESPONSE 25: Soil sampling was only conducted on the site, since any site related disposal resulting in soil contamination was expected to be located on-site. Environmental sampling results indicate the soil contamination is limited to on-site; therefore, no off-site soil samples were collected from the properties referenced.

COMMENT 26: The project down the road, you didn't think it would migrate to Well #2?

RESPONSE 26: No. The referenced project is located to the east of this site. Groundwater flow is to the southeast, away from the well.

COMMENT 27: In the other graphic, Well #1 is outside the raised area.

RESPONSE 27: Yes. On figure 4 in the PRAP Well #1 is outside the line that shows the approximate extent of PCE above the groundwater standard of 5 ppb. Testing during the RI/FS found PCE in Well #1 at 2.5 ppb.

David D. Day, PE, and Andrew D. Lent, of Day Environmental Inc., submitted an email on March 30, 2011 which included the following comments:

COMMENT 28: Please include the parties listed below on the Crystal Cleaners mailing list and notify these parties of all public correspondence, meeting notices, public determinations, etc. regarding the Crystal Cleaners site:

David D. Day, P.E.
Day Environmental, Inc.
40 Commercial Street
Rochester, NY 14614
e-mail: dday @daymail.net

Andrew D. Lent, C.P.G.
Day Environmental, Inc.
40 Commercial Street
Rochester, NY 14614
e-mail: alent @daymail.net

RESPONSE 28: The Division of Environmental Remediation is committed to informing and involving the public during the investigation and cleanup of contaminated sites being addressed under the State's various remedial programs. We encourage you to receive site information by email by signing up at the appropriate county listserv(s) identified below. It's quick, it's free, and it will help keep you better informed. See <http://lists.dec.state.ny.us/mailman/listinfo/steubencountycleanupnews>.

COMMENT 29: The New York State Department of Environmental Conservation (NYSDEC) has proposed a "No Further Action" determination. The proposed "No Further Action" determination will allow for the implementation of a defined set of institutional and engineering controls such as a Site Management Plan, installation of a sub-slab depressurization system associated with redevelopment of the Crystal Cleaners property, along with limited monitoring of groundwater, indoor air and soil vapor quality. We agree with the NYSDEC's finding that a "No Further Action" determination is appropriate for the Site.

RESPONSE 29: Comment noted.

COMMENT 30: The RI report, FS report, and the PRAP conclude that PCE contamination from the Crystal Cleaners property is impacting the City of Corning Water Supply Wells #1 and #2. For example, this finding is stated in Section 9.5 of the RI report: "The PCE groundwater plume is centered at the Crystal Cleaners site. The plume extends downgradient towards the southeast toward the two public wells. The plume concentrations are expected to drop below the NYS Class GA groundwater criteria to the southeast of SW-2." The PRAP also states that "A moderate amount of PCE from the site has migrated off-site and has impacted the City of Corning's Public Supply Wells #1 and #2 (i.e., referred to as Wells SW-1 and SW-2 in the RI Report). Due to the presence of contamination, the City of Corning installed an air stripper on the wells to remove VOCs from the drinking water.. ." Based on a review of the information provided in the RI report, FS report, and PRAP, and based on additional information obtained from the City of Corning 2008 and 2009

Annual Drinking Water Reports, this conclusion is speculative, and should not be presented as a fact. Listed below are comments that illustrate why this conclusion should be considered speculative. As a result, all references that the Crystal Cleaners Site has adversely impacted City of Corning Water Supply Wells should be removed from the RI report, FS report and PRAP.

Figure 6-1 of the RI report indicates that PCE detected in groundwater at Well SW-2 can be continuously traced back to the Crystal Cleaners property. This interpretation does not appear to take into account that PCE was not detected at monitoring wells MW-4, MW-5 and MW-6 that were installed as part of the RI. Also, PCE was not detected in any permanent monitoring well in the RI study area (Study Area) located within 1,000 feet of Well SW-2. In addition, no volatile organic compounds (VOCs) were detected at sub-slab soil vapor sampling locations H01, H02, H04, H08, H09, H10, H17(1), and H17(2) above the corresponding State Air Guideline Values. These sub-slab vapor sampling locations are located between the Crystal Cleaners property and Wells SW-1 and SW-2. The information provided above suggests that another PCE source may be impacting Well SW-2 and H05, and not the Crystal Cleaners Site.

RESPONSE 30: Groundwater sampling data collected from permanent and temporary wells support the finding that Crystal Cleaners is the source of the PCE detected in the public wells. As shown in Figure 3-1, there are exceedances of NYSDEC Class GA criteria in temporary wells located between West Pulteney Street and West William Street, southeast of the Site. The permanent wells MW-4, MW-5, and MW-6 are located outside of the area where temporary wells showed exceedances of the NYSDEC Class GA criteria. These permanent wells are bounding the extent of the plume as shown in Figure 6-1. The highest PCE concentration in the permanent wells was measured adjacent to the structure on the Site in MW-2 (340 ppb). PCE was detected south of the Site at MW-3 (34 ppb).

Relative to vapor intrusion, as discussed in the “New York State Department of Health (NYSDOH), Guidance for Evaluating Soil Vapor Intrusion in the State of New York. Center for Environmental Health, Bureau of Environmental Exposure Investigation (BEEI). Final, October, 2006”, predicting the extent of soil vapor contamination is complicated by environmental and building factors that affect migration and intrusion. Specifically, “soil vapor contaminant plumes may not mimic groundwater contaminant plumes since different factors affect the migration pattern of each medium.” Factors such as soil types and underground conduits can affect soil vapor migration. Therefore the soil vapor intrusion results cannot be used as a means of disqualifying conclusions drawn from evaluation of the soil, groundwater, and groundwater flow direction.

COMMENT 31: Section 1.5 of the RI report states that groundwater flow at the Site is to the south towards the Chemung River. This finding appears to be consistent with the groundwater contour lines located immediately downgradient of the Crystal Cleaners property noted in Figure 5.4 of the RI report. Assuming that groundwater flow is perpendicular to the contour lines provided in Figure 5.4, groundwater from the Crystal Cleaners property would migrate towards the Chemung River west of Well SW-1 and even further west of Well SW-2. According to the March 2009 sampling data provided in Table 3-1 of the RI report, VOCs were not detected in Well SW-1. Also, Section 5.4 of the RI report states that groundwater flow is to the southeast; however, this statement is inconsistent with the information provided in Section 1.5 of the RI report. The basis for this inconsistency is not clearly described in the FS report. Based on information provided in the RI report, a clear determination of the groundwater flow direction has not been provided. Therefore, the RI report does not provide an adequate basis for a conclusion that groundwater flow is to the

southeast. Nor is there any logical explanation for the lack of VOCs in Well SW-1, and the presence of VOCs in Well SW-2.

RESPONSE 31: The information in Section 1.5 of the Remedial Investigation Report identifies the general direction of groundwater flow in the area. Based on the groundwater contours developed during the investigation, shown in Figure 5-4, groundwater flow direction based on groundwater elevation data from wells in this vicinity also shows a component of groundwater flow to the southeast. Although VOCs were not detected in SW-1 during the RI sampling, VOCs have been detected in both SW-1 and SW-2 over the years (NYSDEC, 2007, Final Site Characterization Report, Region 8 Dry Cleaning Site, Crystal Cleaners Site. MACTEC Engineering and Consulting, Portland, ME).

COMMENT 32: Section 5.2 of the RI report states that soils encountered during the RI consist of generally gravel and sand materials overlying "a thick clay layer". The top of the encountered clay layer was approximately 27 feet in depth at the Crystal Cleaners property and approximately 20 feet in depth along West William Street. Section 5.2 of the RI report states that the clay layer was not fully penetrated during completion of the referenced soil borings, and that the clay layer was at least 19.5 feet thick on the Crystal Cleaners property. The presence of a clay layer beneath the Crystal Cleaners property could have a significant impact on hydrogeology and contaminant migration processes within the Study Area. It does not appear that the other portions of the RI fully considered the presence of this "thick clay layer" in the conclusion that the Site has adversely impacted Wells SW-1 and SW-2.

RESPONSE 32: As stated in Section 5.1 in the RI, "The bedrock valleys are partially filled with sand and gravel intermixed with fine grained glacial-lake deposits." Although a layer of clay was identified in boring logs, there is no indication that this layer is consistent or forms a confining layer.

COMMENT 33: A predominantly clay layer was encountered from approximately 21 to 39 feet in depth at Well SW-1, and 26 to 32 feet at Well SW-2. These wells are screened within a deeper sand and gravel deposit located beneath this clay layer. It appears according to the regional geologic cross sections provided in Figure 5-2 of the RI report that the "thick clay layer" reported in the Study Area and encountered at Wells SW-1 and SW-2 are glacial lake deposits. The presence of predominantly clay deposits encountered at the Corning water supply wells, and a "thick clay layer" encountered across the Study Area suggests that Wells SW-1 and SW-2 may be drawing water from a deeper sand and gravel aquifer. The degree of interconnection between the shallow and the deep sand and gravel units was not conducted as part of the RI report. An evaluation to determine the extent of interconnection between the shallow and the deep sand and gravel units would require such things as installation of monitoring well couplets that are discretely screened in the shallow and the deep sand and gravel units. Unless there is such an interconnection, there is no identified mechanism to explain how contamination from the Crystal Cleaners Site could have contaminated the City of Corning wells.

RESPONSE 33: See the response to Comment 32.

COMMENT 34: Section 9.4 of the RI report states that the primary contaminant at the Site is tetrachloroethene (PCE) with "infrequent detection of the degradation products TCE, cis-1,2-DCE and vinyl chloride." According to the attached City of Corning 2008 and 2009 Annual Drinking

Water Reports, treatment of Wells #1 and 2 is required for the removal of trichloroethene (TCE). Thus, the City of Corning Annual Drinking Water Reports suggest that the City is treating water for the removal of a volatile organic compound (TCE) that has only been detected infrequently within the Crystal Cleaners Study Area. Also, since the RI report only presents one round of groundwater sampling of the City of Corning wells with a single detection of PCE, adequate data is not presented in the RI report to reach a conclusion regarding the persistence or origin of the PCE contamination. Other testing methods could be undertaken to determine if there is a link between VOC contamination at the City wells and the VOC contamination detected at the Crystal Cleaners Site, such as forensic testing.

RESPONSE 34: As identified in the report cited in Response 31 PCE has been detected previously at low concentrations in both wells. Concentrations typically range from non-detect to 14 micrograms per liter ($\mu\text{g/L}$), with slightly higher concentrations detected in Well 2 than Well 1. PCE was detected in the samples collected in the 2004 round at concentrations of 1.1 $\mu\text{g/L}$ in Well 1 and 11 $\mu\text{g/L}$ in Well 2. The NYS Class GA standard for PCE is 5 $\mu\text{g/L}$.” The results of the RI samples collected from the public wells are consistent with the previous findings for these wells. The public wells are located downgradient from the Site. Elevated PCE concentrations were detected upgradient from these wells with the highest PCE concentrations in the immediate vicinity of the Site. There is a pattern of decreasing concentrations with distance from the site along the groundwater flow direction. It is unclear why the documentation for the public well treatment cites TCE as the primary contaminant of concern. TCE is a breakdown product of PCE and may have also been detected in these wells over time.

COMMENT 35: The City of Corning Annual Water Quality Reports noted above also state that treatment for the removal of TCE is being conducted at Well #8A. The location of Well #8A is not provided in the RI. The presence of TCE requiring groundwater treatment at Well #8A in addition to Wells SW- 1 and SW-2, suggests that contamination of the groundwater aquifer could be a regional issue, requiring evaluation of a regional nature rather than just within the limited RI Study Area.

RESPONSE 35: Groundwater samples were collected to the north and west of the public wells during the RI. The sample collected from MW-1 upgradient of the Site was non detect for PCE. MIP and hydropunch samples identified a plume of contaminated VOCs beneath the Site. Groundwater samples were collected from locations near the Former Helwig Cleaners Site, northeast of the site. These sampling events have characterized the extent of groundwater PCE contamination upgradient and to the northeast of the public wells. While other portions of Corning may have PCE contamination unrelated to this Site, there is no evidence that these sites are impacting the PCE plume identified in the RI.

COMMENT 36: According to the well log for the City of Corning Well #2 prepared by Layne-New York & Co. Inc. in 1942 and provided in Appendix C of the RI report, 15 feet of fill material of unknown origin was encountered during the installation of this well. Two feet of fill material of unknown origin was also noted in the log for Well #1. The presence of fill material of unknown origin at these water supply well locations could be a source of contamination to Wells SW-1 and SW-2. This potential source of contamination was not discussed in the RI.

RESPONSE 36: If fill from 1942 were the primary source of PCE contamination in the wells, PCE would have been observed prior to the 1980s.

COMMENT 37: According to the RI report, installation of the groundwater treatment system for Wells SW-1 and SW-2 started in the early 1980s. This time frame coincides with the first dry cleaning operations at the Crystal Cleaners property as noted in the PRAP. An investigation regarding the groundwater contamination at Wells SW- 1 and SW-2 would need to be conducted before any conclusions regarding the source(s) of contamination in the wells could be reached. Such an investigation would need to address questions such as those listed below.

- When did monitoring for VOCs, including PCE and TCE, begin at City of Corning Wells #1, #2, and 8A?
- When were VOCs first detected in these wells?
- What VOCs were detected and what were their reported concentrations in these wells?
- Have the reported VOC concentrations changed over time in these wells?
- What is the current and historic usage of these City wells?
- When groundwater impacts were first identified in these wells did the City of Corning investigate potential sources of this contamination? What were the results of this investigation?
- A full investigation of the history of groundwater contamination at Wells SW-1 and SW-2 would need to be conducted before concluding that the Crystal Cleaners Site is the source of contamination.

RESPONSE 37: The Department disagrees with this comment. See Responses 31 and 33.

COMMENT 38: Pumping water from Wells SW-1 and SW-2 would have an influence on the local groundwater contours and flow directions. The RI report does not include an evaluation of the area of influence or capture zones associated with Wells SW-1 and SW-2. This type of information is needed before conclusions can be drawn regarding the source of any contamination detected in these wells.

RESPONSE 38: Pumping for SW-1 and SW-2 is ongoing and the influence of these wells, if any, is captured in the measured groundwater elevations. The Department notes that groundwater has been sampled upgradient and northeast of these public wells. No source of PCE other than the Site has been identified throughout these investigations.

COMMENT 39: There appear to be other potential sources of VOC contamination in the vicinity of the Site. Section 6.4 of the RI report states that PCE contaminated groundwater "may extend beyond the estimated boundary to the north and west from another source"; however, an investigation was not conducted as part of the RI to define that source area. Also, in the past, the NYSDEC has identified a source of VOC groundwater contamination west of the Crystal Cleaners property as part of the investigation of the Ingersoll Rand Foundry Inactive Hazardous Waste Site (#851012). According to the site remediation database for Site #851012, an unknown source of VOC contamination was identified in this area. These references provide an indication that there are other unidentified source areas of VOC contamination in the vicinity of the Site.

RESPONSE 39: The Environmental Data Resources, Inc., (EDR) (2006) reports identified listed hazardous waste sites, underground storage tanks, and spill reports within one mile of the site. None of the releases from the sites listed below appear to impact the Crystal Cleaners site:

- The Ingersoll Rand Foundry Site, located less than 1.0 mile northwest of Crystal Cleaners, is listed in the State Hazardous Wastes Sites record. The primary contaminants of concern are PCBs and PAHs.
- Hess Oil Company, located less than 0.5 mile northwest of Crystal Cleaners, is listed in the Leaking Storage Tank Incident Reports. The tanks contained petroleum.
- Sites identified in the Underground Storage Tank database are Corning Natural Gas southeast of the site and Eckerd Drugstore northwest of the site. Both sites are located within 0.25 mile of the site. For Corning Natural Gas, the product stored is unleaded gasoline. For Eckerd Drugstore, the product stored is fuel oil.
- Spill reports were made for petroleum at 74 Goff Road within 0.13 mile of the site.

COMMENT 40: Figure 6-1 of the RI report is confusing and appears to have inaccuracies in it. The figure includes PCE contours that appear to cross each other and a wavy blue colored contour that is not identified on the Figure Legend. In addition, the PCE plume that is identified on Figure 6-1 and related figures would probably change if the PCE concentrations were reported as "Not Detected" instead of one-half of the reported detection limit.

RESPONSE 40: Figure 6-1 with thinner line types for the contours shows the contours do not cross. All line colors are shown in the legend. One-half the detection limit was chosen to represent these censored data. The one-half detection limit values range from 0.5 ug/L to 2.5 ug/L which is less than one percent of the maximum detection of PCE and below the 5 ug/L NYSDEC Class GA criterion for PCE.

COMMENT 41: Soil vapor concentrations are typically greatest at the source of contamination. Soil vapor data collected during the Site Characterization Study and the RI indicated that the highest detected concentrations of PCE and TCE in sub-slab soil vapor was at sample location H05, which is located approximately 900 feet from the Crystal Cleaners property. A comparison between the Crystal Cleaners sub-slab soil vapor data and the H05 sub-slab soil vapor data is provided below:

Parameter	New York State Air Guideline Value (AGV)	Maximum concentrations at Crystal Cleaners (SV-1) detected during the 1/26/06 sampling event (Note, no sub-slab soil vapor samples were collected at Crystal Cleaners during the RI)	Concentrations at H05 detected during the 2/14/10 sampling event
PCE	100 µg/cm ³	747 µg/cm ³	1,100 µg/cm ³
TCE	5 µg/cm ³	30.2 µg/cm ³	45 µg/cm ³

As shown above, the concentration of sub-slab vapors at location H05 is greater than the source area (i.e., Crystal Cleaners Site) identified in the RI report.

Also, VOCs, including PCE or TCE, were not detected in sub-slab soil vapor from the seven sampled locations between the Crystal Cleaners property and H05 during the RI at concentrations above the corresponding AGV. This suggests that the VOCs detected at the Crystal Cleaners property and H05 are not related. The presence of PCE and TCE in sub-slab soil vapor at location H05 could be attributed to another source. A more direct correlation would need to be established between these two locations before stating that the potentially responsible party (PRP) for the

Crystal Cleaners Site is responsible for implementing, monitoring, or maintaining the interim remedial measure (IRM) at location H05.

RESPONSE 41: No sources of PCE were identified in the vicinity of H05. The soil vapor contamination measured at H05 does not appear to be attributable to another unidentified source, because the soil and groundwater samples collected upgradient of H05 do not indicate the presence of another source. It is also noted that the second highest sub-slab PCE concentration was detected in H03, located across the street to the west of the Site. Without a measurement of the sub-slab concentrations, it cannot be assumed that the levels of PCE in soil vapor at the Site are low relative to the concentration measured at H05. Also see Response 30.

COMMENT 42: The indoor air quality sampling logs provided in the RI report do not include a chemical inventory of the sampled locations. A chemical inventory of the sample locations would be useful in interpreting the indoor air and soil vapor sampling results.

RESPONSE 42: The inventories are available by making a FOIL request.

COMMENT 43: Figure 1 of the Fact Sheet indicates that the "Former Helwigs Cleaner Site" was located north of Well SW-2. The sampling procedures, sample results, investigation logs and other raw data associated with the "former Helwigs Cleaner Site" are not provided or discussed in the RI report.

RESPONSE 43: The PCE sample results for the Site Characterization Report are shown on Figure 1-3 of the RI. All groundwater data collected in the vicinity of the Former Helwigs Cleaners Site were non-detect.

COMMENT 44: Section 2.2 of the FS report states that the Site was purchased from Coming, Inc. (Coming) in December 1969. There is no further discussion of Coming's historic site activities, or the potential impact Coming's activities could have had on the Site.

RESPONSE 44: PCE was detected in well SW-2 in the early 1980s. As presented in Table 7-2 of the RI, the estimate contaminant migration time for PCE from the Site to public well SW-2 is approximately 3 years. If the PCE contamination were attributed to Site uses prior to 1969, PCE contamination should have been observed prior to the early 1980s.

COMMENT 45: The "No Further Action" slide provided during the March 17, 2011 public meeting states that "No remaining source area identified, historic disposal likely in 2 areas". However, the RI report does not identify the location of these two historic disposal areas.

RESPONSE 45: This information was included in the public presentation to show that we did attempt to find a source area on the site property.

COMMENT 46: The PRAP only lists Oliverae, LLC, the current owner, as a PRP. The PRAP should be revised to include all prior dry cleaning facility operators on the Site as PRPs. The NYSDEC should also identify that Oliverae, LLC did not operate a dry cleaning facility at the Crystal Cleaners property. Property tenants or prior owners, not Oliverae, LLC, conducted dry cleaning operations.

RESPONSE 46: See Response 49.

COMMENT 47: Section 5 of the PRAP states that due to the contamination of a Public Supply Well and the associated costs, the Crystal Cleaners Site has been referred to the NYSDEC attorneys for natural resource damages recovery. Based on the technical comments provided in this letter, there is no basis to hold PRPs for the Site responsible for any such natural resource damages.

RESPONSE 47: Comment noted.

Alan J. Knauf of Knauf, Shaw, LLP submitted an email on March 30, 2011 which included the following comments:

COMMENT 48: We are attorneys for Oliviarae LLC, and are writing to provide comment on the proposed Remedial Action Work Plan ("PRAP"), as well as the Remedial Investigation ("RI") Report, Feasibility Study Report, and March 2011 Fact Sheet for the Crystal Cleaners property in Coming, New York (the "Site").

At the outset, we do agree with the overall conclusion that no further action is necessary at the Site. Any contamination source has been removed. We request that the Site be downgraded to a Class 4 site on the Registry of Inactive Hazardous Waste Disposal Sites, since the Site is properly closed, and all that is necessary might be continued management of institutional and engineering controls.

Under separate cover you are receiving comments from Day Environmental, Inc. ("Day") on behalf of our client. Day's comments indicate that there is no scientific basis to conclude that the Site is the source of any contamination in the City of Corning (the "City") water supply wells. As a result, there is no basis to hold our client or anyone else who might be responsible for the Site liable for natural resource damages. Rather, the conclusions connecting the VOC contamination in the City wells with PCE contamination at the Site are purely speculative, and do not rise to the level of acceptable scientific opinions.

RESPONSE 48: See above responses to Day Environmental, Inc.'s letter dated March 30, 2010. Additionally, the Department will commence the process to reclassify the site to a Class 4.

COMMENT 49: We also object to the identification of our client Oliviarae LLC as the sole potentially responsible party ("PRP"), and the failure to identify the parties that are truly responsible for this Site.

Oliviarae LLC is the present owner of the Site, which it acquired on May 1, 2007. It has never operated a dry cleaners, laundromat or any other active business, but is merely a property owner. Crystal Cleaners was closed by March 31, 2007, so no active cleaning operation was even present on the Site during ownership by Oliviarae LLC. Rather, our research indicates that the other persons are responsible parties that owned or operated on the Site prior to our client taking title.:

Therefore, it is not appropriate to classify Oliviaræ LLC as a PRP. Rather, your Department should identify and pursue the true PRPs. Nor is there adequate scientific evidence to link contamination from the Site to damages to the City water supply wells.

RESPONSE 49: Comment noted.

Steve Dennis, Director of Planning and Economic Development for the City of Corning submitted a letter on March 29, 2011 which included the following comments:

COMMENT 50: The City of Corning has received the Fact Sheet and proposed remedy for Crystal City Cleaners Site No 851022, Corning N.Y. During the public comment period the City wishes to support the No Further Action remedy and recommends implementation through the NYS Brownfield Cleanup Program. The Brownfield Program may provide incentives for redevelopment of the site which is currently vacant.

RESPONSE 50: The site is not eligible for the NYS Brownfield Cleanup Program.

APPENDIX B

Administrative Record

Administrative Record

**Crystal Cleaners
State Superfund Project
City of Corning, Steuben County, New York
Site No. 851022**

Final Site Characterization Report, dated March 2007, prepared by MACTEC Engineering and Consulting, P.C.

Final Remedial Investigation, dated January 2011, prepared by AECOM.

Final Feasibility Study Report, dated February 2011, prepared by AECOM.

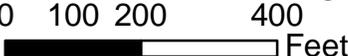
Proposed Remedial Action Plan for the Crystal Cleaners site, dated March 2011, prepared by the Department.



Crystal Cleaners Site
 343 West Pulteney Street
 Corning, Steuben County, NY

AECOM

Crystal Cleaners Site
 Site No. 8-51-022
 Corning, NY



-  Supply Well
-  Site Boundary

Site Location Map

Project No: 106774

Figure No: 1

February 25, 2011



AECOM

Crystal Cleaners Site
 Site No. 8-51-022
 Corning, NY



0 112.5 225 Feet

Legend

- MW-Permanent Monitoring Wells
- Supply Well

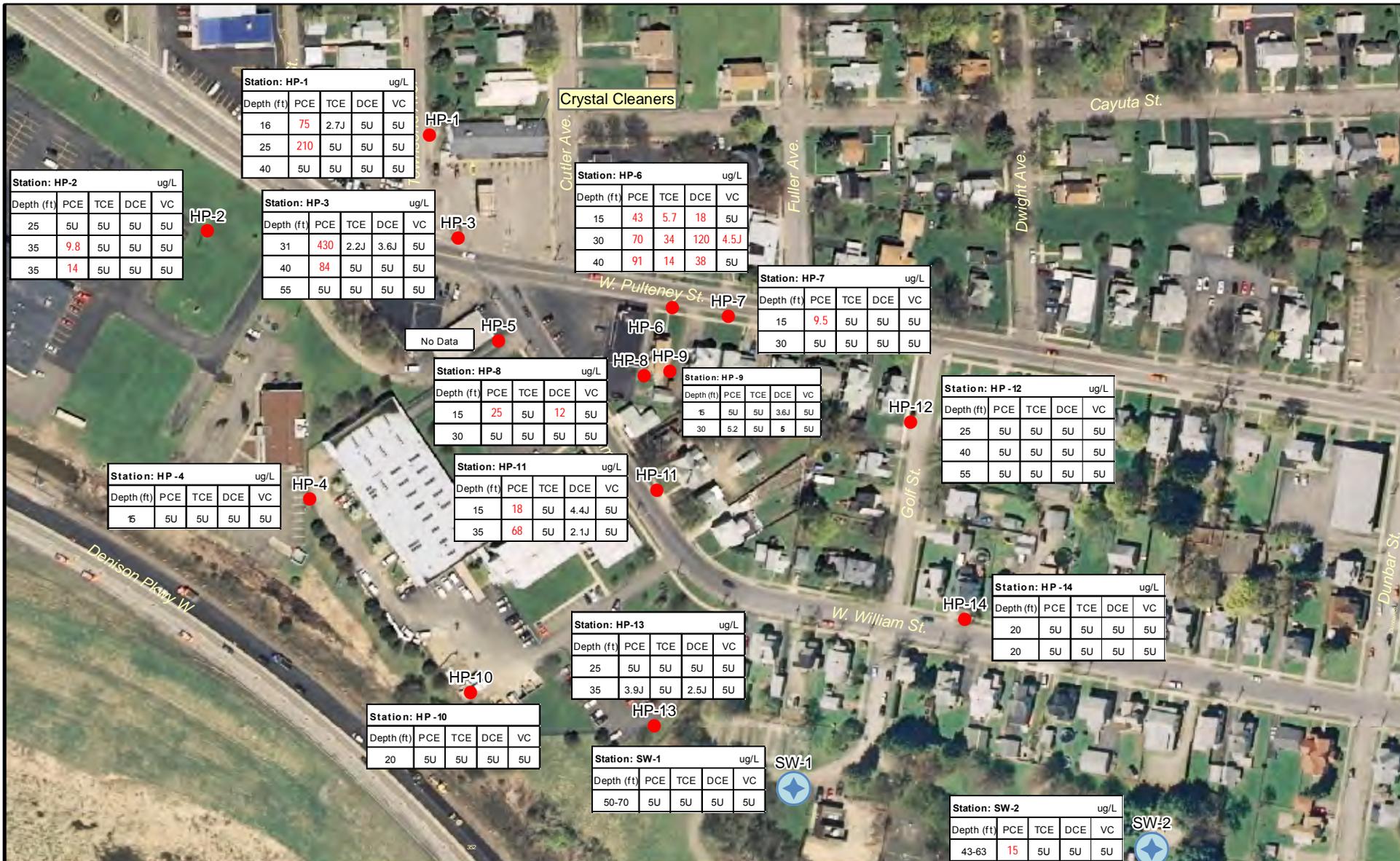
Groundwater Elevations (ft amsl)	
	913
	914
	915
	916
	917
	918
	919
	920
	921
	922

Groundwater Elevations
 October 2009

Project No: 106774

Figure No: 2

January 26, 2011



AECOM

Crystal Cleaners Site
Site No. 8-51-022
Corning, NY

0 50 100 200
Feet



Legend

- HP - Hydropunch Locations
- ⊕ SW - Supply Well
- VC - Vinyl Chloride
- DCE - cis-1,2-Dichloroethene
- TCE - Trichloroethene
- PCE - Tetrachloroethene

Concentrations for compounds with one or more exceedances of the NYS Class GA criteria are shown. NYS Class GA criteria exceedances are in red.

U - Not Detected
J - Estimated Value

Groundwater Sampling Results
March 2009

Project No: 106774

Figure No: 3

July 27, 2010



AECOM

Crystal Cleaners Site
 Site No. 8-51-022
 Corning, NY



0 62.5 125 250
 Feet

Legend

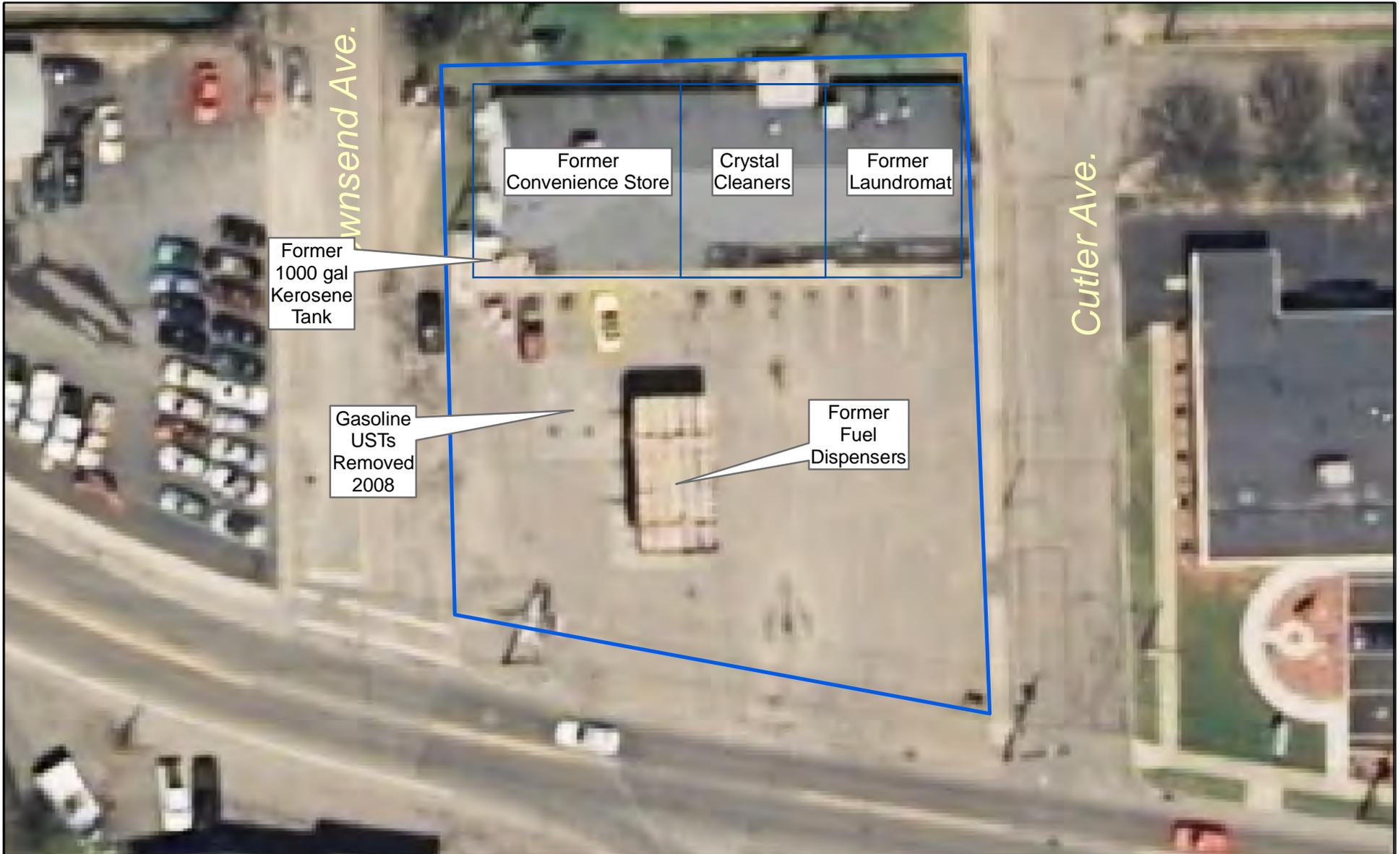
- HP - Hydropunch Locations
- ⊕ Permanent Monitoring Wells
- ⊕ SW - Supply Well
- PCE - Tetrachloroethene
- ⎓ Approximate Extent of PCE >5 ug/L

Groundwater PCE Contours

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Figure No: 4

October 20, 2010



AECOM

Crystal Cleaners Site
 Site No. 8-51-022
 Corning, NY



Site Layout

Project No: 106774

Figure No: 5

October 20, 2010

W. Pult