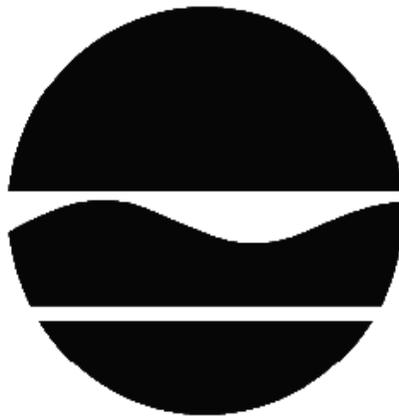


DECISION DOCUMENT

New York Express Dry Cleaners
Brownfield Cleanup Program
Queens, Queens County
Site No. C241050
October 2013



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

DECLARATION STATEMENT - DECISION DOCUMENT

New York Express Dry Cleaners
Brownfield Cleanup Program
Queens, Queens County
Site No. C241050
October 2013

Statement of Purpose and Basis

This document presents the remedy for the New York Express Dry Cleaners site, a brownfield cleanup 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.

This decision is based on the Administrative Record of the New York State Department of Environmental Conservation (the Department) for the New York Express Dry Cleaners site and the public's input to the proposed remedy presented by the Department.

Description of Selected Remedy

The elements of the selected remedy are as follows:

Soil remaining at the site has achieved the soil cleanup objectives for residential use, so no land use restrictions are required.

1. Green Remediation

Green remediation principals and techniques will be implemented to the extent feasible in the site management of the remedy as per DER-31. The major green remediation components are as follows;

- Considering the environmental impacts of treatment technologies and remedy stewardship over the long term;
- Reducing direct and indirect greenhouse gas and other emissions;
- Increasing energy efficiency and minimizing use of non-renewable energy;
- Conserving and efficiently managing resources and materials; and
- Reducing waste, increasing recycling and increasing reuse of materials which would otherwise be considered a waste.

2. Vapor Mitigation

Continued operation of the sub-slab depressurization system, or similar engineered system, to prevent the migration of vapors into off-site buildings from soil and/or groundwater.

3. Institutional Control

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

- 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); and
- requires compliance with the Department approved Site Management Plan.

4. Site Management Plan

A Site Management Plan is required, which includes 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 Easement discussed in Paragraph 3 above.
 - Engineering Controls: The sub-slab depressurization system discussed in Paragraph 2 above.

This plan includes, but may not be limited to:

- o descriptions of the provisions of the environmental easement including any land use and groundwater use restrictions;
 - o a provision for evaluation of the potential for soil vapor intrusion for any buildings developed on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;
 - o provisions for the management and inspection of the identified engineering controls;
 - o maintaining site access controls and Department notification; and
 - o 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:
 - o a schedule of monitoring and frequency of submittals to the Department;
 - o monitoring for vapor intrusion for any buildings developed on the site, as may be required by the Institutional and Engineering Control Plan discussed above.

Declaration

The remedy conforms with promulgated standards and criteria that are directly applicable, or that are relevant and appropriate and takes into consideration Department guidance, as appropriate. The remedy is protective of public health and the environment.

October 16, 2013



Date

Robert J. Cozy, Director
Remedial Bureau B

DECISION DOCUMENT

New York Express Dry Cleaners
Queens, Queens County
Site No. C241050
October 2013

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), has selected a remedy for the above referenced site. The disposal of contaminants at the site has resulted in threats to public health and the environment that would be addressed by the remedy. The disposal or release of contaminants at this site, as more fully described in this document, has contaminated various environmental media. Contaminants include hazardous waste and/or petroleum.

The New York State Brownfield Cleanup Program (BCP) is a voluntary program. The goal of the BCP is to enhance private-sector cleanups of brownfields and to reduce development pressure on "greenfields." A brownfield site is real property, the redevelopment or reuse of which may be complicated by the presence or potential presence of a contaminant.

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: CITIZEN PARTICIPATION

The Department seeks input from the community on all remedies. A public comment period was held, during which the public was encouraged to submit comment on the proposed remedy. All comments on the remedy received during the comment period were considered by the Department in selecting a remedy for the site. Site-related reports and documents were made available for review by the public at the following document repository:

Queens Public Library
Central Branch
89-11 Merrick Blvd
Jamaica, NY 11432
Phone: 718-990-0778

Receive Site Citizen Participation Information By Email

Please note that the Department's Division of Environmental Remediation (DER) is "going paperless" relative to citizen participation information. The ultimate goal is to distribute citizen

participation information about contaminated sites electronically by way of county email listservs. Information will be distributed for all sites that are being investigated and cleaned up in a particular county under the State Superfund Program, Environmental Restoration Program, Brownfield Cleanup Program, Voluntary Cleanup Program, and Resource Conservation and Recovery Act Program. We encourage the public to sign up for one or more county listservs at <http://www.dec.ny.gov/chemical/61092.html>

SECTION 3: SITE DESCRIPTION AND HISTORY

Location: The site is a small portion of a shopping center, approximately 0.03 acres, located on 73rd Avenue and 188th Street in Fresh Meadows, New York. Properties surrounding the site are primarily residential, with some commercial uses.

Site Features: The site consists of the area adjacent to the loading dock and surrounding area which was part of the former New York Express Dry Cleaners, which operated retail dry cleaning on the premises. The dry cleaner was located at the north end of the shopping center.

Current Zoning and Land Use: The site is zoned R4 (residential) with a C1-2 (commercial) overlay.

Past Use of the Site: The site has been used a dry cleaning establishment since at least 1983. The area in which the site is located was a golf course prior to 1947. The site was previously being addressed in the Department's Voluntary Cleanup Program as site #V00199.

Geology and Hydrogeology: The surficial geology of the site and Central and South Long Island is characterized by Pleistocene deposits of glaciofluvial origin and a thin mantle of Holocene soil. Previous borings indicate that approximately 5 to 9 feet of fill material underlies the site. Groundwater occurs at approximately 36 feet below grade within the unconsolidated Pleistocene sediments that underlie the site. The direction of groundwater flow is north to northwest.

A site location map is attached as Figure 1.

SECTION 4: 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 residential use (which allows for restricted-residential use, commercial use and industrial use) as described in Part 375-1.8(g) were/was evaluated in addition to an alternative which would allow for unrestricted use of the site.

A comparison of the results of the Remedial Investigation (RI) to the appropriate standards, criteria and guidance values (SCGs) for the identified land use and the unrestricted use SCGs for the site contaminants is available in the RI Report.

SECTION 5: ENFORCEMENT STATUS

The Applicant under the Brownfield Cleanup Agreement is a Participant. The Applicant has an obligation to address on-site and off-site contamination. Accordingly, no enforcement actions are necessary.

SECTION 6: SITE CONTAMINATION

6.1: Summary of the Remedial Investigation

A remedial investigation (RI) serves as the mechanism for collecting data to:

- characterize site conditions;
- determine the nature of the contamination; and
- assess risk to human health and the environment.

The RI is intended to identify the nature (or type) of contamination which may be present at a site and the extent of that contamination in the environment on the site, or leaving the site. The RI reports on data gathered to determine if the soil, groundwater, soil vapor, indoor air, surface water or sediments may have been contaminated. Monitoring wells are installed to assess groundwater and soil borings or test pits are installed to sample soil and/or waste(s) identified. If other natural resources are present, such as surface water bodies or wetlands, the water and sediment may be sampled as well. Based on the presence of contaminants in soil and groundwater, soil vapor will also be sampled for the presence of contamination. Data collected in the RI influence the development of remedial alternatives. The RI report is available for review in the site document repository and the results are summarized in section 6.3.

The analytical data collected on this site includes data for:

- groundwater
- soil
- soil vapor
- indoor air
- sub-slab vapor

6.1.1: 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. For a full listing of all SCGs see: <http://www.dec.ny.gov/regulations/61794.html>

6.1.2: RI Results

The data have identified contaminants of concern. A "contaminant of concern" is a contaminant 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 below. Additionally, the RI Report contains a full discussion of the data. The contaminant(s) of concern identified at this site is/are:

BENZO(A)PYRENE
BENZO(B)FLUORANTHENE
indeno(1,2,3-cd)pyrene

TETRACHLOROETHYLENE (PCE)
TRICHLOROETHENE (TCE)

The contaminant(s) of concern exceed the applicable SCGs for:

- soil
- indoor air

6.2: 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 Decision Document.

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

IRM - SVE System

Soil Vapor Extraction (SVE):

A soil vapor extraction system was installed to remove volatile organic compounds (VOCs) from the subsurface. VOCs were physically removed from the soil by applying a vacuum to wells that have been installed into the vadose zone (the area below the ground but above the water table). The vacuum draws air through the soil matrix which carries the VOCs from the soil to the SVE well. The air extracted from the SVE wells is then treated as necessary prior to being discharged to the atmosphere.

A total of two SVE wells were installed into the vadose zone and screened from 6 feet below the ground surface to a depth of approximately 38 feet. The air containing VOCs extracted from the SVE wells is treated by passing the air stream through activated carbon which removes the VOCs from the air prior to it being discharged to the atmosphere.

The SVE system was subsequently converted into a sub-slab depressurization system.

6.3: 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. The RI report presents a detailed discussion of any existing and potential impacts from the site to fish and wildlife receptors.

Nature and Extent of Contamination: Based on the investigations conducted to date contaminants, including chlorinated solvents and semi-volatile organic compounds (SVOCs), are present in the subsurface. These contaminants are impacting soil and soil vapor.

Soil: Based on the analytical results from the Supplement RI Report dated September 2011, only the SVOCs (benzo (a) anthracene, benzo (a) pyrene, and chrysene) were detected at concentrations that slightly exceeded the Soil Cleanup Objectives for Residential Use in soil samples. These SVOCs were detected in only one soil sample collected from boring SB-1 in native soil at a depth interval of 15 to 15.5 feet bgs.

Groundwater: Based on the analytical results from the Supplement RI Report dated September 2011, the groundwater samples collected from monitoring wells MW-1 through MW-4 and MW-6 did not exceed the NYSDEC Technical and Operational Guidance Series (TOGS) for Ambient Water Quality Standards and Guidance Values.

Soil Vapor: The analytical results of the soil gas samples collected from the newly installed permanent monitoring points VMP-12 and VMP-13 indicated PCE concentrations of 52 ug/m³ and 246 ug/m³, respectively.

Significant Threat: The New York State Department of Environmental Conservation, in consultation with the New York State Department of Health, has determined that the site does not pose a significant threat to public health or the environment.

6.4: 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 the groundwater because the area is served by a public water supply that is not affected by this contamination. Volatile organic compounds in groundwater 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. A sub-slab depressurization system (systems that ventilate/remove the air beneath the building) has been installed in the on-site building to prevent the indoor air quality from being affected by the

contamination in soil vapor beneath the buildings. Sampling indicates soil vapor intrusion is not a concern for off-site buildings.

6.5: 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 action objectives for this site are:

Soil

RAOs for Public Health Protection

- Prevent inhalation of or exposure from contaminants volatilizing from contaminants in soil.

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.

SECTION 7: ELEMENTS OF THE SELECTED REMEDY

The alternatives developed for the site and the evaluation of the remedial criteria are presented in the Alternative Analysis. The remedy is selected pursuant to the remedy selection criteria set forth in DER-10, Technical Guidance for Site Investigation and Remediation and 6 NYCRR Part 375.

The selected remedy is a Track 2: Restricted use with generic soil cleanup objectives remedy.

The selected remedy is referred to as the Vapor Mitigation remedy.

The elements of the selected remedy, as shown in Figure 2, are as follows:

Soil remaining at the site has achieved the soil cleanup objectives for residential use, so no land use restrictions are required.

1. Green Remediation

Green remediation principals and techniques will be implemented to the extent feasible in the site management of the remedy as per DER-31. The major green remediation components are as follows;

- Considering the environmental impacts of treatment technologies and remedy stewardship over the long term;

- Reducing direct and indirect greenhouse gas and other emissions;
- Increasing energy efficiency and minimizing use of non-renewable energy;
- Conserving and efficiently managing resources and materials; and
- Reducing waste, increasing recycling and increasing reuse of materials which would otherwise be considered a waste.

2. **Vapor Mitigation**

Continued operation of the sub-slab depressurization system, or similar engineered system, to prevent the migration of vapors into off-site buildings from soil and/or groundwater.

3. **Institutional Control**

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

- 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); and
- requires compliance with the Department approved Site Management Plan.

4. **Site Management Plan**

A Site Management Plan is required, which includes the following:

- c. 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 Easement discussed in Paragraph 3 above.
 - Engineering Controls: The sub-slab depressurization system discussed in Paragraph 2 above.

This plan includes, but may not be limited to:

- o descriptions of the provisions of the environmental easement including any land use and groundwater use restrictions;
 - o a provision for evaluation of the potential for soil vapor intrusion for any buildings developed on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;
 - o provisions for the management and inspection of the identified engineering controls;
 - o maintaining site access controls and Department notification; and
 - o the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.
- d. a Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:
 - o a schedule of monitoring and frequency of submittals to the Department;
 - o monitoring for vapor intrusion for any buildings developed on the site, as may be required by the Institutional and Engineering Control Plan discussed above.



1787 Sentry Parkway West
Blue Bell, Pennsylvania 19422

**FIGURE 1
SITE LOCATION MAP**

73RD AVENUE SHOPPING CENTER
69-60 188TH STREET, QUEENS, NEW YORK
MACTEC PROJECT NO.: 3485050051

DRN BY DS
CHKD BY JG

