New York State Department of Environmental Conservation

Fact Sheet

February 2004

Proposed Remedial Action Plan

New York Twist - Loading Dock Area

(a.k.a. 25 Melville Park Road)
Operable Unit 1

Site #152169 (Voluntary Cleanup Site # V00128-1)
Melville, Suffolk County

PUBLIC MEETING ANNOUNCEMENT

The NYS Department of Environmental Conservation, working with the NYS Department of Health and the Suffolk County Department of Health Services, invites concerned citizens to attend a public meeting (see location below) to discuss the Proposed Remedial Action Plan for the cleanup of on-site contamination (Operable Unit 1) of the New York Twist Drill Loading Dock Area site, located in the Melville, Town of Huntington, Suffolk County. This fact sheet is also intended to solicit public comments on the Proposed Remedial Action Plan.

Public Meeting Location:

March 11, 2004, 7:00 p.m. at:
Half Hollow Hills Public Library
Melville Branch
510 Sweet Hollow Road
Melville, NY 11747

Document Repositories:

NYSDEC Region 1 Office
Environmental Remediation Unit
SUNY, Building 40
Stony Brook, NY 11790-2356
Phone: (631) 444-0240
Hours: Monday through Friday, 8:30 a.m. - 4:45 p.m.

Half Hollow Hills Public Library
510 Sweet Hollow Road
Melville, NY 11747
Attn: Reference Librarian
Phone: (631) 421-4535
Hours: Mon-Thurs, 10:00 A.M. to 9:00 P.M.
Fri & Sat, 10:00 A.M. to 5:00 P.M.

Public Comment Period:

February 26, 2004 to March 27, 2004

For Additional Information:

Robert Stewart, Project Manager
NYS Department of Environmental Conservation
SUNY, Building 40
Stony Brook, NY 11790-2356
Phone: (631) 444-0244

William Fonda, Citizen Participation Specialist
NYSDEC, Region 1, SUNY, Building 40
Stony Brook, NY 11790-2356
Phone: (631) 444-0350

For Site-Related Health Concerns:

Ian Ushe, Assistant Sanitary Engineer
NYS Department of Health
547 River Street, Rm 300, Troy, NY 12180-2216
Phone: (518) 402-7880 or (800) 458-1158 ext. 27870

INTRODUCTION

The New York State Department of Environmental Conservation (NYSDEC), in consultation with the New York State Department of Health (NYSDOH) and the Suffolk County Department of Health Services (SCDHS), is proposing a remedy for Operable Unit 1 for the New York Twist Drill - Loading Dock Area site. This site is also known as the 25 Melville Park Road site. Chlorinated solvents, consisting primarily of tetrachloroethene, and oils were discharged during the manufacturing of twist drills at the site between 1966 and 1984. These discharges have impacted the underlying groundwater.

The on-site contamination (Operable Unit 1) will be addressed by a volunteer who never had any involvement in the site during the time of disposal and is participating in the Department's voluntary cleanup program. Since the volunteer is an innocent owner who acquired the property in an already contaminated condition, this volunteer is only required to address the on-site portion of the contamination.

Since the volunteer is not required to address the off-site groundwater contamination, the NYSDEC listed the site as a Class 2 site (Site Number 152169) in the Registry of Inactive Hazardous Waste Disposal Sites so that the off-site contamination could be addressed under the Department's state superfund program. The Department is currently negotiating a consent order with the Potentially Responsible Parties (PRPs) who may be legally liable for the contamination at the site. Subsequent Operable Unit 2 will cover the off-site groundwater contamination.

SITE DESCRIPTION

The six-acre New York Twist Drill (NYTD) site is located at 25 Melville Park Road in Melville in a large industrial/commercial area in Suffolk County. The site is currently being used as a multi-tenant office building. The site is located slightly east of Route 110 on the first east-west street south of the service road for the Long Island Expressway. There are no schools or residential properties near the site. A site location map is attached.

SITE HISTORY

The site was used between 1966 (when the building was originally constructed) and 1984 by NYTD to manufacture carbon steel and other hardened metal twist drills. The former manufacturing area was in the northeastern portion of the building. Steel bars 1/4-inch to 2-inches in diameter were cut, thermally tempered, degreased with a chlorinated solvent in a vapor degreaser, ground and pointed, finished, packaged and shipped.

After NYTD vacated the building, it was gutted and converted into a two-story office complex in 1985. No known manufacturing activities have occurred at the site since the departure of NYTD.

Several different investigations were performed in the mid-1990s for potential purchasers of the property. It was discovered that the groundwater downgradient of the former manufacturing area for NYTD was contaminated with chlorinated solvents.

A voluntary investigation was performed in 1996 and 1997 under NYSDEC oversight. Various supplemental investigations were completed between 1997 and 2003 to fill in data gaps that became evident as the project progressed.

A pilot test was performed is in 1998 to evaluate *in situ* chemical oxidation using injections of Fenton's Reagent, a strong oxidizer, to oxidize the groundwater contaminants in the treatment area. The groundwater data collected during and after the pilot test indicated some data gaps that required further evaluation before a final remedial alternative could be selected.

Other remedial options were evaluated while additional data was collected to better define the site contamination. A new pilot test to evaluate a bioremediation technology known as enhanced reductive dechlorination was initiated in August 2003. This pilot test is still in progress. Preliminary results are favorable.

NATURE AND EXTENT OF THE ON-SITE CONTAMINATION

Soil borings have been performed by traditional drilling techniques and by direct push technology to evaluate all known areas of interest related to the former manufacturing operations at this site. A large number of soil, soil gas, indoor air and groundwater samples have been analyzed to evaluate all media.

Based on the available data, the soils above the water table are only minimally impacted at concentrations which would not require remediation. However, the underlying groundwater is highly contaminated by chlorinated solvents and to a lesser extent by oil. The primary contaminant is tetrachloroethene (PCE), a common solvent used for the degreasing of metal parts.

It is suspected that the contaminants were discharged directly to the groundwater in some manner. Since all remnants of the former manufacturing operations were removed in 1985, the exact method of discharge is unknown.

A large number of groundwater samples collected from discrete intervals and from monitoring wells have defined the extent of the groundwater contamination. The groundwater source area is by the loading dock and garbage disposal area on the eastern side of the site. The source extends under the former NYTD manufacturing area. In the source area, free product, consisting of a mixture of chlorinated solvents and oils, is being actively recovered from a few wells in this area by hand bailing. More than 340 gallons of water diluted product have already been recovered in this manner since March 1999.

The bulk of the on-site groundwater contamination is contained within the upper 50 feet of the aquifer near the source area. PCE and related breakdown products, trichloroethene and cis-

1,2-dichloroethene, are present at significant concentrations from the source area to the southern property border. The oil contamination is confined to the upper 50 feet of the groundwater in the immediate vicinity of the disposal area.

Some chlorinated solvent vapors, measured as soil gases, beneath the slab of former manufacturing area are present. These vapors are possibly the result of the volatilization of the contaminants in the underlying groundwater. The air quality inside the building has been monitored at various times since 1998. The concentrations detected to date of potentially site related contaminants are similar to typical background concentrations for these compounds. Consequently, no indoor air impacts from the site related contaminants have been identified.

HEALTH EVALUATION

Under current site conditions, there are no known completed exposure pathways at the site. Current indoor air sampling results are consistent with typical background concentration levels. Direct exposure to contaminated soil is unlikely because most of the site is paved. Finally, there is currently no on-site usage of the contaminated groundwater. Drinking water is supplied to the building by public water, which is routinely monitored and treated, if necessary, to ensure that it complies with federal and state drinking water standards.

The groundwater contamination beneath the site extends into the two upper-most aquifers in Suffolk County, the Upper Glacial and Magothy Aquifers. The Magothy Aquifer in the vicinity of the site is used for public supply. The closest public supply wells that are in the general direction of groundwater flow are located approximately 4,200 feet to the southwest. Since the groundwater flow direction determined in the on-site investigation is to the south-southeast, it is highly unlikely that this well field will be impacted by this site.

Another public supply well field is approximately two miles south of the site. With the expected groundwater flow velocities, it is unlikely that site related contaminants have migrated that far. However, this potential exposure threat will be evaluated further in the off-site groundwater investigation for Operable Unit 2.

There are some private wells in use that are downgradient of the site. A private well survey will be required to evaluate this potential exposure pathway in Operable Unit 2. Anyone using a private well for drinking water purposes located in the expected groundwater flow direction should notify the NYSDOH at the telephone numbers listed on the front page. If appropriate, samples will be collected to determine water quality.

PROPOSED REMEDIAL ACTION PLAN

The NYSDEC has prepared the Proposed Remedial Action Plan (PRAP), February 2004 for the NYTD site. It is available in the public repositories for public review. The primary elements of the remedy are:

- Continued removal of free product from selected monitoring wells by hand bailing.
- Treatment of the on-site groundwater contamination using enhanced reductive dechlorination technology.
- Periodic monitoring of on-site groundwater and indoor air to monitor the progress of the remediation and to ensure that the building occupants are not exposed to site related contaminants.
- Implementation of institutional controls to limit future site usage to industrial or commercial uses and to prevent use of the underlying on-site groundwater without adequate treatment.

The main element of the remedy is treatment of the groundwater by enhanced reductive dechlorination. This is an innovative technology in which an easily degradable carbohydrate solution is injected into the groundwater stimulating the growth of natural occurring bacteria which degrade the chlorinated solvents. The injections are adjusted based on the results of periodic groundwater monitoring so that favorable conditions for the growth of the bacteria required for degradation are maintained. The injections cause no permanent changes to the groundwater.

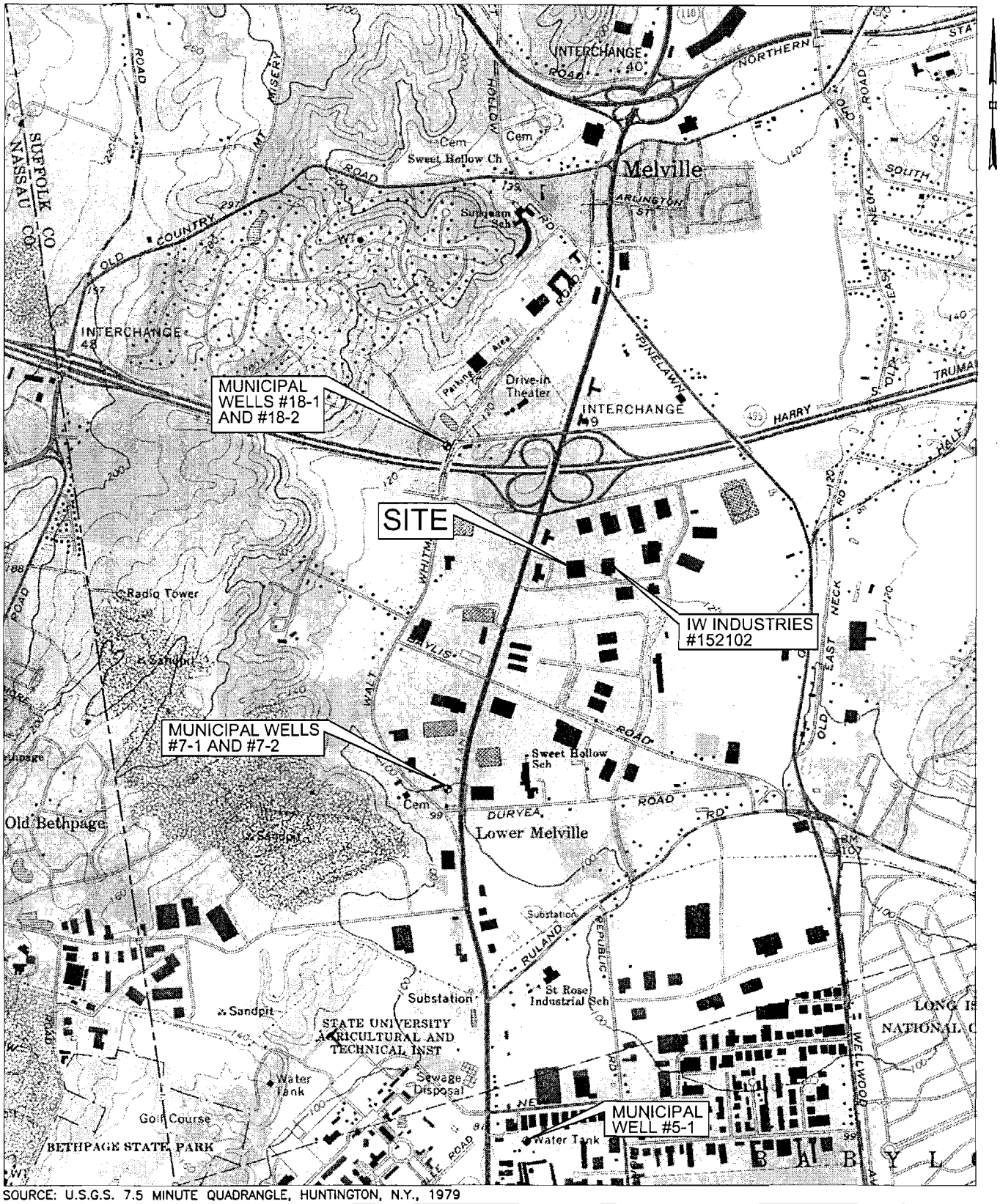
The NYSDEC considers the above remedy to be superior to three other viable remedies that were evaluated. Besides the discussion contained in the PRAP, the Remedial Action Work Plan, February 2004 provides further details on the potential remedies that were evaluated for this site. Both documents compare the evaluated remedies.

CITIZEN PARTICIPATION

This fact sheet is being used to invite the public to a public meeting at which the NYSDEC will present the PRAP to the public in more detail. Details on the public meeting time and location are indicated on the front page. The public is encouraged to review the PRAP and submit comments to the NYSDEC. A 30-day comment period from February 26, 2004 to March 27, 2004 has been established to receive public comments. Comments can be submitted to Robert Stewart at the address or telephone number listed on the front page. Comments will also be received verbally at the public meeting. A final remedy will not be selected until all public comments have been carefully considered. A responsiveness summary will be prepared and included in the Record of Decision, which will be placed in the public repositories, when available.

Other documents pertaining to this site are available to the public at the document repositories. The most important of these are the Voluntary Investigation Report, December 1999 and the Remedial Action Work Plan, February 2004.

Any questions regarding this site should be directed to the contacts listed on the front page.



SOURCE: U.S.G.S. 7.5 MINUTE QUADRANGLE, HUNTINGTON, N.Y., 1979

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SCALE IN FEET

SITE LOCATION MAP

25 MELVILLE PARK ROAD, MELVILLE, NEW YORK

DRAWING NUMBER

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