New York State Department of Environmental Conservation
Division of Environmental Remediation
Remedial Bureau D, 12th Floor
625 Broadway, Albany, New York 12233-7013
Phone: (518) 402-9812 • **FAX:** (518) 402-9819
Website: www.dec.state.ny.us

Erin M. Crotty
Commissioner

MEMORANDUM

TO: Dale A. Desnoyers, Director, Division of Environmental Remediation

FROM: Andrew English, Chief, Remedial Section
THRU: Edward Belmore, Director, Remedial Bureau D

SUBJECT: **Explanation of Significant Differences, Dover Electronics, Site: ID No. 7-04-026**

DATE: JUL 25 2003

Attached is the Explanation of Significant Differences (ESD) for the Dover Electronics site. The Project Manager is Mr. James Moras from Remedial Bureau D. The New York State Department of Health (DOH) has reviewed the ESD and is in agreement with it; the DOH concurrence letter has been drafted and is expected soon.

The significant difference to the remedy, compared to the remedy selected in the March 2000 ROD, is that the planned SVE system for the inaccessible soils won't be installed; instead, an active sub-slab depressurization (ASD) system has been installed to address indoor air contamination and deed restrictions will be placed on the property to address the inaccessible soils in the future.

These changes are being made in response to information from an SVE pilot test indicating lower than expected soil vapor permeability. As a result, soil vapor cannot be effectively drawn out of the subsurface; this type of condition prevents the successful application of the SVE technology.

The work began the week of June 16, 2003 and scheduled to be substantially completed during July 2003.

Recommendation:

We believe that the ROD, as modified by the ESD, presents the best alternative for site remediation and we recommend that you sign the ESD.

If you would like a meeting to discuss the ESD we are prepared to do so at your convenience.

Attachments

EXPLANATION OF SIGNIFICANT DIFFERENCES
DOVER ELECTRONICS SITE

Kirkwood (T) / Broome County / Registry No. 7-04-026 / July 2003

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

1.0 INTRODUCTION

The purpose of this notice is to describe the progress of the cleanup at the Dover Electronics site and to inform you about a change in the Site remedy. The Dover Electronics site is located at 29 Industrial Park Road in Kirkwood, Broome County. On March 30, 2000, the New York State Department of Environmental Conservation (NYSDEC) signed a Record of Decision (ROD) which selected a remedy to clean up the site. Certain aspects of the remedy included in the ROD have been modified. The main change to the remedy is that the planned soil vapor extraction (SVE) system to remove volatile organic contamination from the inaccessible soils under the building will not be installed; instead, an active sub-slab depressurization (ASD) system has been installed to prevent movement of vapors into the on-site building. Deed restrictions will be placed on the property to restrict future use as well as to indicate that additional action will be taken when the soils become accessible.

The modified remedy consists of: 1) an ASD system and deed restrictions to address the contaminated inaccessible subsurface soils located below the on-site building; 2) abandonment and re-routing of the roof drain system in the front of the building; 3) excavation and off-site disposal of the limited amount of accessible contaminated soils that are located outside of the footprint of the on-site building; 4) a large scale *in situ* groundwater treatment pilot study (currently being performed and evaluated) as a cost-effective way to shorten the duration of the groundwater remedy; a groundwater contingency plan calls for the installation of a groundwater extraction and treatment system in case the *in situ* treatment is not effective; 5) deed restrictions placed upon the property as long as residual contamination remains at the site; and 6) institution of a long-term monitoring program and an operation and maintenance program (for the active components of the remedy) since hazardous waste will remain on-site for at least the term of the implementation of the remedy.

The following points describe the significant differences compared to the remedy selected in the March 2000 ROD: 1) the planned SVE system for the inaccessible soils will not be installed; and 2) an ASD system has been installed and deed restrictions will be placed on the property. These changes are being made in response to information from an SVE pilot test indicating lower than expected soil vapor permeability. As a result, soil vapor cannot be effectively drawn out of the subsurface; this type of condition prevents the successful application of the SVE technology.

This Explanation of Significant Differences (ESD) will become part of the Administrative Record for this site. The information here is a summary of what can be found in greater detail in documents that have been placed in the following repositories:

Kirkwood Town Clerk's Office
(Ms. Gayle Diffendorf, Town Clerk)
70 Crescent Drive
Kirkwood, NY 13795-9654
Hours: Monday-Friday, 9 a.m.-1 p.m.
& 2 p.m.-4 p.m.

NYS Dept. of Environmental Conservation
Region 7 Headquarters
615 Erie Boulevard West
Syracuse, NY 13204
Hours: Monday-Friday 8:30-4:45
Contact: Mr. James Burke at 315-426-7400

Interested persons are invited to contact the NYSDEC's Project Manager for this site to obtain more information or have questions answered. The project manager for this site is Mr. James Moras. To obtain additional information, he can be contacted at 625 Broadway, Albany, New York, 12233-7013, telephone number: 518-402-9812, email jamoras@gw.dec.state.ny.us.

2.0 SITE DESCRIPTION AND ORIGINAL REMEDY

2.1 Site History, Contamination, and Selected Remedy

The Dover Electronics site (Site No. 7-04-026) is located just south of Exit 3 of Interstate Route 81, across Colesville Road, at 29 Industrial Park Road in the Town of Kirkwood, Broome County (see Figure 1). The site property is approximately 9 ½ acres in size and is located in an industrial/commercial area at the western end of the Kirkwood Industrial Park.

The property consists of an industrial building and historically had areas outside and inside where chemicals were stored in drums and tanks. The original building was constructed in 1973 and subsequent additions were built in 1978, 1982, and 1983.

The site has been occupied by Universal Plastics and Dover Electronics (Division of Dover). In 1993, Dover Electronics separated from Dover as a stand-alone corporation and was renamed Dovatron, Inc. In 1995, Dovatron, Inc., transferred its title to the facility to Universal Instruments. In 1996, Dovatron, Inc., changed its name to the DII Group. The site currently serves as the corporate headquarters for Universal Instruments. The facility was used as an electronic circuit board manufacturing company and has reportedly been in operation since its construction in 1973.

Previous on-site circuit board manufacturing processes used tetrachloroethene (PCE) as a cleaning solvent. Originally, the virgin PCE was stored in 55-gallon drums at an outer drum storage area. During the initial facility expansion, a ramp to the east side overhead door served as the entry point for PCE drums. As production increased and the facility was again expanded, virgin PCE was stored in a 3,000-gallon above ground storage tank. A 5,000-gallon "used PCE" aboveground flux storage tank was also on site. A 10,000-gallon fuel oil tank (see Figure 2 for locations of the former tanks) was reportedly removed from the site in March 1992. The aboveground PCE system was dismantled in March 1993. Reportedly, two 480-gallon PCE tanks were dismantled and removed from the building interior at that time. As a result of the historical handling and use of PCE, the presence of soil, storm water, and groundwater contamination has been documented at this site.

In 1998 and 1999, the Potentially Responsible Party (PRP) conducted a Remedial Investigation (RI) to determine the extent of the contamination at the site. Activities performed during the RI included:

- Excavation of test pits around the site to evaluate the possibility for man-made conduits (i.e., storm drains, water lines) to be acting as preferential pathways for the migration of contamination.

- Advancement of soil borings in order to collect subsurface soil samples in potential source areas which had not yet been characterized prior to the RI.

- Installation of monitoring wells to define the extent of the groundwater contamination.

- Collection of storm water and ditch soil samples from the storm water drainage system around the site.

- Collection of indoor air samples taken in the rear of the building adjacent to the source areas that exist in the subsurface.

The investigation showed that volatile organic contamination (predominantly tetrachloroethene and its breakdown products) is present in groundwater to the south-southwest of the building, in subsurface soils under and near the rear addition of the building, as well as in the on-site storm water drainage system.

The remedy selected in the March 2000 ROD for this site included: 1) SVE to address the contaminated inaccessible subsurface soils located below the on-site building; 2) abandonment of the roof drain system in the front of the building (piping under the building will be disconnected from the system) and rerouting (new piping will be installed) to prevent further mobilization of contaminants through this part of the system; 3) groundwater extraction and treatment to address contaminated groundwater; this included an evaluation, early in the design phase of the program, of supplemental in-place groundwater treatment (in the area(s) where the highest concentrations are present) as a cost-effective way to shorten the duration of the groundwater remedy; 4) excavation and off-site disposal of the limited amount of accessible contaminated soils that are located outside of the footprint of the on-site building; 5) deed restrictions placed upon the property as long as residual contamination remains at the site; and 6) institution of a long-term monitoring program and an operation and maintenance program (for the active components of the remedy) since hazardous waste will remain on-site for at least the term of the implementation of the remedy.

3.0 CURRENT STATUS

The Potentially Responsible Party (PRP) has entered into a Consent Order to perform the necessary work as a part of the remedial program for this site. The remedial design was completed, in concept, at the end of March 2003 with the final design documents submitted in June 2003. Construction activities were initiated in late June and are expected to be completed this construction season.

4.0 DESCRIPTION OF SIGNIFICANT DIFFERENCES

4.1 New Information

In September 2001 a SVE pilot study was performed at the site in order to gather the information that would be needed to design the intended SVE system to address contaminated inaccessible soils. The results of the pilot study are summarized in the January 2003 Pre-design Report and they indicate lower than expected vapor permeability found in the soils during the pilot test. As a result, soil vapor cannot be effectively drawn out of the subsurface; this type of condition prevents the successful application of SVE technology.

4.2 Comparison of Changes with Original Remedy

The significant difference to the remedy, compared to the remedy selected in the March 2000 ROD, is that the scope will be modified such that: 1) the planned SVE system for the inaccessible soils will not be installed; instead, an ASD system has been installed to prevent movement of vapors into the on-site building (monitoring will be in place to evaluate the performance of the ASD system); and 2) deed restrictions will be placed on the property restricting future use as well as to indicate that action will be taken when the soils become accessible.

The intended performance of the original remedy for the inaccessible soils included addressing the presence of contamination in the indoor air of the on-site building as well as addressing the source of contamination present below the building. The performance of the modified remedy will be the same as the intended performance of the original remedy; this performance will be achieved through the installation of an ASD system to address indoor air contamination in the short term and deed restrictions to address the source of contamination present below the building in the long term.

Once all aspects of the modified remedy have been implemented, there will be a relatively insignificant increase in the cost of the remedy compared to the cost of the original remedy.

A modification of this nature is considered to be a significant but not a fundamental change to the ROD.

The remedial goals included in the March 2000 ROD for this site include:

- Reduce, control, or eliminate, to the extent practicable, the contamination present in the subsurface soils at the site; this includes the reduction, control, or elimination, to the extent practicable, of releases from the subsurface soil to groundwater and to the storm water drainage system.

- Reduce, control, or eliminate, to the extent practicable, the continued migration of contaminated groundwater from the site.

- Eliminate, to the extent practicable, exceedances of applicable environmental quality standards related to groundwater and storm water.

- Reduce, control, or eliminate, to the extent practicable, the source of the contamination that has been detected in the indoor air samples (i.e., air samples taken in the storage/utility area in the rear of the building).

The ROD, as modified by this ESD, is protective of human health and the environment and meets the goals originally included in the March 2000 ROD. The New York State Department of Health concurs that the modified remedy is protective of public health.

5.0 SCHEDULE AND MORE INFORMATION

The PRP moved forward with the schedule to implement the remedy; work began during June and should be substantially complete by July 2003.

If you have questions or need additional information you may contact any of the following:

Mr. James Moras - Project Manager
NYS Department of Environmental Conservation
625 Broadway
Albany, NY 12203-7013
(518) 402-9671

Mr. James Burke - Regional Contact
NYS Dept. of Environmental Conservation
Region 7 Headquarters
615 Erie Boulevard West
Syracuse, NY 13204
315-426-7400

Mr. Geoff Laccetti
NYS Department of Health
547 River Street
Troy, NY 12180
518-402-7870

7/24/03
Date

A. J. English for JAM
James A. Moras, Project Manager
Remedial Bureau D

7/24/03
Date

Andrew J. English
Andrew J. English, Section Chief
Remedial Bureau D

7/25/03
Date

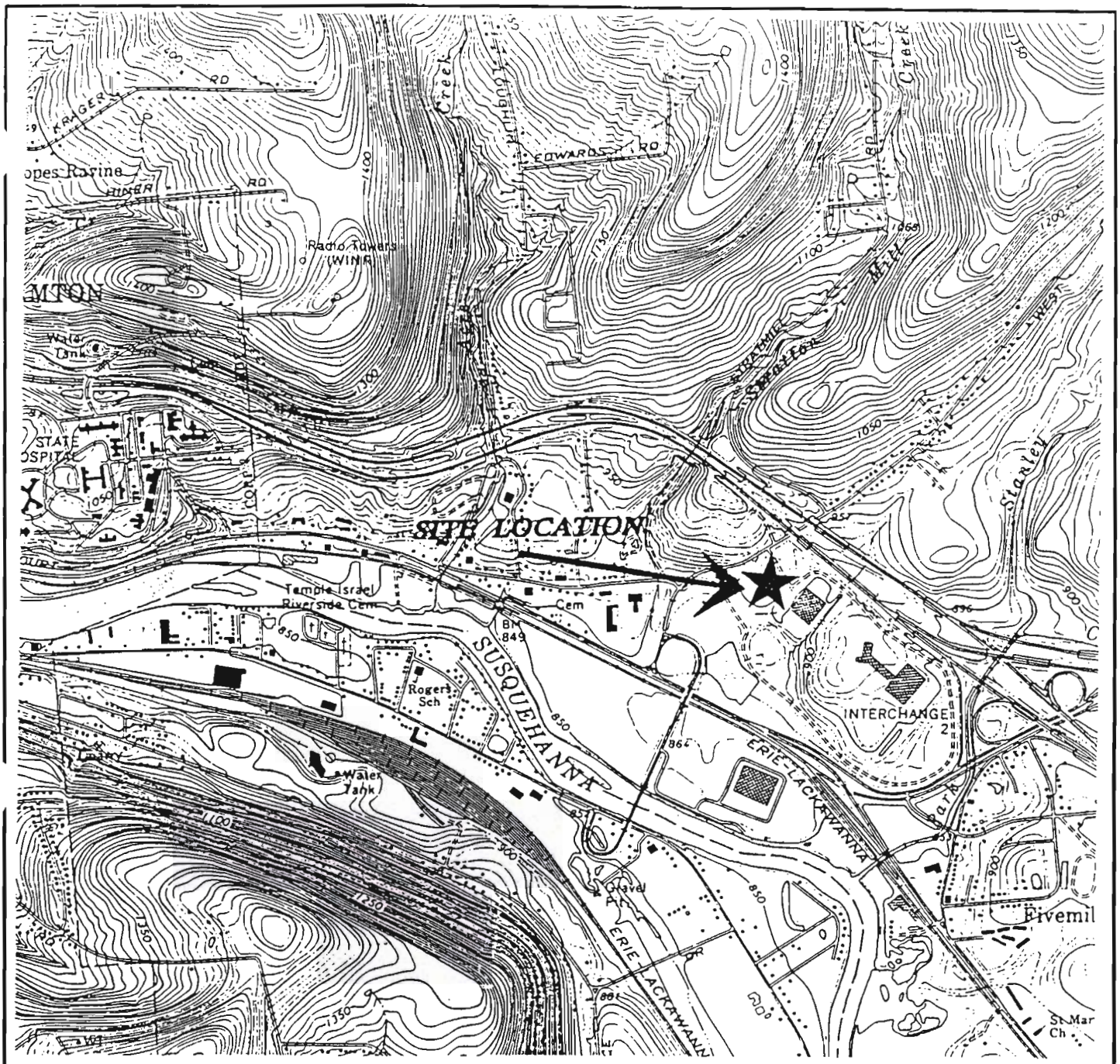
Edward R. Belmore
Edward R. Belmore, Director
Remedial Bureau D

8/26/03
Date

Salvatore Ervolina, Assistant Director
Division of Environmental Remediation

AUG 29 2003
Date

Dale A. Desnoyers
Dale A. Desnoyers, Director
Division of Environmental Remediation



SOURCE: USGS Topographic Quadrangle Map
Binghamton East, New York – 1968

-N-

0 1,000' 2,000'
SCALE

DATE: 7/27/98	FIGURE 1	**SHIELD**
DRAWN BY: P.D.H.	SITE LOCATION MAP	ENVIRONMENTAL ASSOCIATES, INC.
APPROVED BY: K.D.	DOVER ELECTRONICS SITE KIRKWOOD, NEW YORK	LEXINGTON, KENTUCKY
CLIENT NO.: 395-0430		

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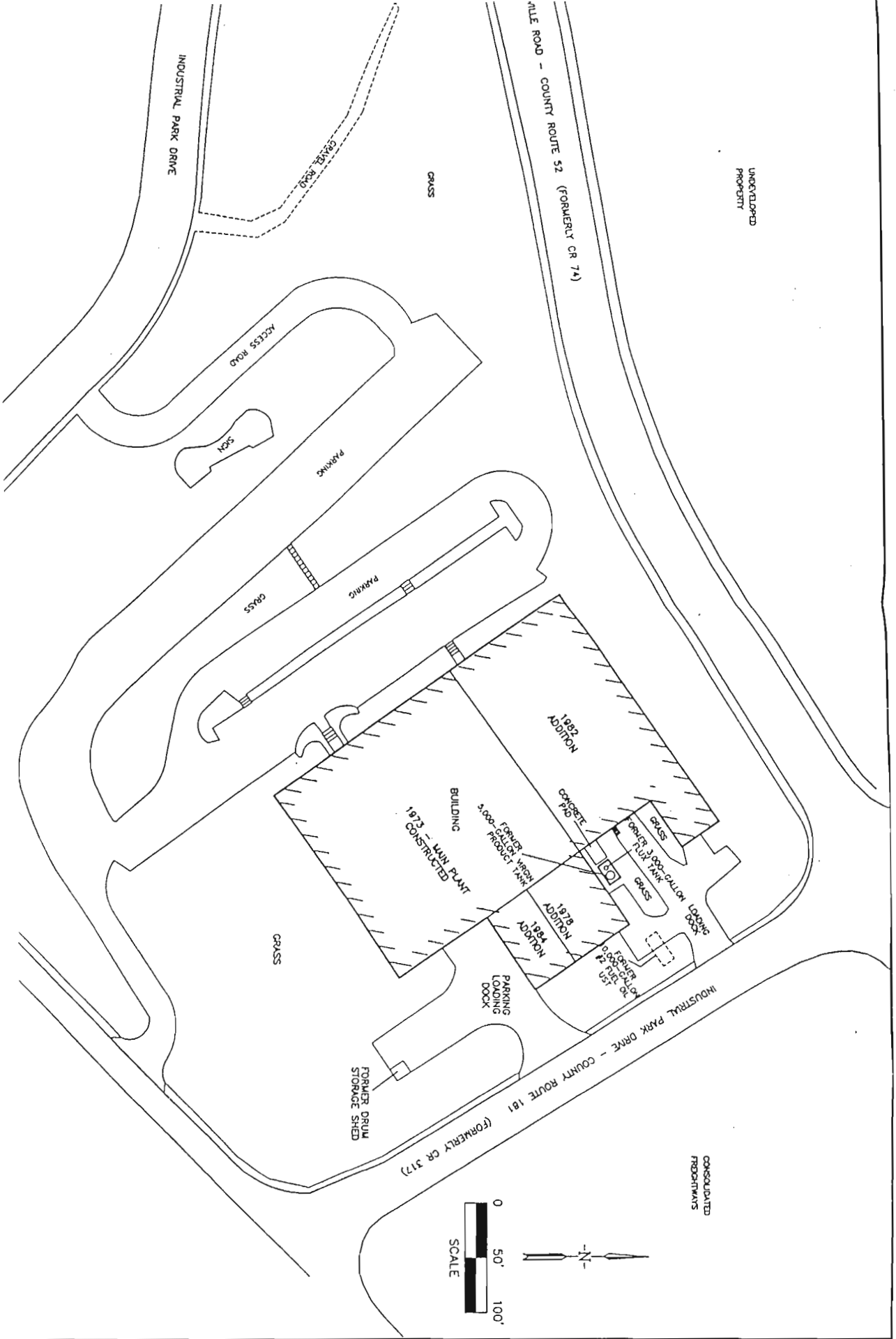

FIGURE 2

SURROUNDING PROPERTIES, BUILDING ADDITIONS, AND HISTORICAL SITE FEATURES

DOVER ELECTRONICS SITE
KIRKWOOD, NEW YORK

SHIELD

ENVIRONMENTAL ASSOCIATES, INC.

LEXINGTON, KENTUCKY

STATE OF NEW YORK
DEPARTMENT OF HEALTH

Flanigan Square, 547 River Street, Troy, New York 12180-2216

Antonia C. Novello, M.D., M.P.H., Dr.P.H.
Commissioner

Dennis P. Whalen
Executive Deputy Commissioner

August 26, 2003

Mr. Dale Desnoyers, Director
Division of Environmental Remediation
NYS Dept. of Environmental Conservation
625 Broadway - 12th Floor
Albany, NY 12233-7011

Re: Explanation of Significant Differences
Dover Electronics
Site #704026
Kirkwood, Broome County

Dear Mr. Desnoyers:

Staff reviewed the June 2003 Explanation of Significant Differences (ESD) for the Dover Electronics site in the Town of Kirkwood, Broome County. The March 2000 Record of Decision (ROD) called for the installation of a soil vapor extraction (SVE) system to remove volatile organic contamination from the inaccessible soils underneath the building. While there are other components of the ROD, the ESD proposes to change only in this component.

Through a SVE pilot study, it was determined that the site has lower than expected soil vapor permeability which prevents the successful application of the SVE technology. Therefore, the New York State Department of Environmental Conservation (NYSDEC) proposes to modify the remedy from SVE installation of an active sub-slab depressurization (ASD) system and placement of site deed restrictions. The ASD system will prevent movement of vapors into the on-site building. Deed restrictions will restrict future site use and ensure that additional action will be taken when the soils become accessible.

Based on the information provided, I believe that the proposed modification to the 2000 ROD will be protective of public health and concur with the proposed remedy set forth in the ESD. If you have any questions, please contact Mr. Geoffrey Laccetti at (518) 402-7870.

Sincerely,

Gary A. Litwin, Director
Bureau of Environmental Exposure Investigation