Department of Environmental Conservation

Division of Environmental Remediation

Record of Decision

General Instrument Site
Hicksville, Nassau County
Site Number 1-30-020

March 25, 1997

New York State Department of Environmental Conservation

GEORGE E. PATAKI, *Governor* JOHN P. CAHILL, *Acting Commissioner*

DECLARATION STATEMENT - RECORD OF DECISION

General Instrument Inactive Hazardous Waste Site
Operable Unit 1-Soils
Hicksville, Nassau County, New York
Site No. 130020

Statement of Purpose and Basis

The Record of Decision (ROD) presents the selected remedial action for Operable Unit 1-Soil Remediation at the General Instrument inactive hazardous waste disposal site which was chosen in accordance with the New York State Environmental Conservation Law (ECL). The remedial program selected is not inconsistent with the National Oil and Hazardous Substances Pollution Contingency Plan of March 8, 1990 (40CFR300).

This decision is based upon the Administrative Record of the New York State Department of Environmental Conservation (NYSDEC) for the General Instrument Inactive Hazardous Waste Site and upon public input to the Proposed Remedial Action Plan (PRAP) presented by the NYSDEC. A bibliography of the documents included as a part of the Administrative Record is included in Appendix B of the ROD.

Assessment of the Site

Actual or threatened release of hazardous waste constituents from this site, if not addressed by implementing the response action selected in this ROD, presents a current or potential threat to public health and the environment.

Description of Selected Remedy

Based upon the results of the Remedial Investigation/Feasibility Study (RI/FS) for theGeneral Instrument Site and the criteria identified for evaluation of alternatives the NYSDEC has selected to modify, expand and improve the existing soil vapor extraction system, which treats the existing soils in place.

New York State Department of Health Acceptance

The New York State Department of Health concurs with the remedy selected for this site as being 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.

Date

Michael J. O'Toole, Jr., Director
Division of Environmental Remediation

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RECORD OF DECISION

General Instrument
Hicksville (V), Oyster Bay (T), New York
Site No. 1-30-020
Operable Unit 1, Soils
March 25, 1997

SECTION 1: SITE LOCATION AND DESCRIPTION

This site is located at 600 West John Street, Hicksville, in the Town of Oyster Bay, Nassau County, New York. This site is on the northeast corner of the intersection of West John Street and Cantiague Rock Road. Industrial properties surround the site except to the northeast, which is a county owned golf course. Refer to Figure 1 for the location of the site. The 11.5 acre property is almost entirely covered by the building and the parking area. The building is currently vacant and is for sale. If the property is sold, the current owner, General Instrument Inc., will still be obligated to complete the remediation.

The NYSDEC has divided this project into two operable units. Operable units are used to separate a site into distinct, manageable areas where each area may require a different remedy. The remediation of the contaminated on-site soils is covered under Operable Unit 1 (OU1) which is the subject of this document. The remediation of the contaminated groundwater will be addressed under Operable Unit 2 (OU2). A proposed remedy for OU2 will be presented in a Proposed Remedial Action Plan (PRAP) which will be issued by the NYSDEC after the completion of the RI/FS for OU2.

SECTION 2: SITE HISTORY

2.1: Operational/Disposal History

1960 General Instrument constructed the first one story building on land which had previously been farmland. Manufacturing of electronic components commenced.

1967 A two-story addition to the main building was constructed on the east side.

1968 A one story addition was constructed on the north side of the two story building.

1970 A 2,000 gallon waste solvent underground storage tank was installed near the northwest corner of the newer one story building.

1972 A waste lagoon was constructed.

1975 A State Pollution Discharge Elimination System (SPDES) Permit was issued for the waste lagoon.

late 70's- A 1,000 gallon waste solvent underground storage tank was installed near the western edge of the original one story building.

1994 End of operations

2.2: Remedial History

Dec 1980 The 2,000 gallon waste solvent tank was removed when it was found to be leaking. Some contaminated soil was excavated and removed.

1981 Two groundwater monitoring wells were installed downgradient of the 2,000 gallon tank location. Soil samples were taken in this vicinity.

1982 A groundwater treatment system was installed in the 2,000 gallon tank area (Area A) (see Figure 2) under the oversight of the Nassau County Department of Health (NCDH) -the 1,000 gallon waste solvent tank was removed (Area B) at this time.

1983 This site was listed as a class 2 Inactive Hazardous Waste Disposal Site.

1984 The facility was connected to the Nassau County Sewer System. The waste lagoon was remediated and closed under the oversight of the Nassau County Department of Health.

1985 The groundwater treatment system was shut down because it was not effectively removing the contamination.

1986 Four additional groundwater monitoring wells were installed.

1989 General Instrument signed a Consent Order with NYSDEC to develop and implement a Remedial Program.

1990 Remedial Investigation field work was performed. Groundwater monitoring wells and soil borings were installed.

1994 An Interim Remedial Measure (IRM) was installed for remediation of the contaminated soil in the areas of the two former waste solvent storage tanks in Areas A and B (see Figure 2). The IRM is a soil vapor extraction system that removes solvents from the soil by suction. The vapors that are drawn out of the soil are passed through a filter to remove the solvents.

December 1995

The soil vapor extraction system was shut down due to mechanical problems. The consultants for the owner have proposed design modifications that are needed to enable the system to operate more efficiently and reliably. The design changes have been reviewed and approved

by the NYSDEC. All changes are scheduled to be completed in the first quarter of 1997. A third area of contaminated soil (Area C) was found under the floor of a basement tunnel (see Figure 2). In the summer of 1996 a well was installed in this area and will be connected to the soil vapor extraction system.

SECTION 3: CURRENT STATUS

In response to a determination that the presence of hazardous waste at the Site presents a significant threat to human health and the environment, General Instrument Inc. has recently completed a Remedial Investigation/Feasibility Study.

3.1: Summary of the Remedial Investigation Soil and On-site Groundwater

The purpose of the RI was to define the nature and extent of any contamination resulting from previous activities at the site.

The RI commenced in 1990 and was completed in January, 1992. The RI included the following activities:

- The installation and sampling of 14 on-site and 1 off-site groundwater monitoring wells. Refer to Figure 2 for the location of the wells and Table 1 for sampling results.

- The collection of soil samples from eight locations. Soil samples were taken at different depths. (See Figure 2)

- Collection of samples from the storm drain near Area A.

To determine which media (soil, groundwater, etc.) contained contamination at levels of concern, the RI analytical data was compared to Standards, Criteria and Guidance (SCGs). Groundwater and drinking water SCGs identified for the General Instrument site were based on the NYSDEC Ambient Water Quality Standards and Guidance Values and Part V of the NYS Sanitary Code. NYSDEC TAGM 4046 soil cleanup guidelines for the protection of groundwater, background conditions, and risk-based remediation criteria were used as SCGs for soil.

Based on the results of the remedial investigation in comparison to the SCGs and potential public health and environmental exposure routes, certain areas and media of the site require remediation. These are summarized below. More complete information can be found in the RI report.

Chemical concentrations are reported in parts per billion (ppb), and parts per million (ppm). For comparison purposes, SCGs are given for each medium.

3.1.1 Nature of Contamination:

Soil contamination was found in Area A and Area B, the former locations of the leaking underground waste solvent tanks. (see Table 1). The soil was contaminated with a mixture of organic solvents. The most prevalent chemicals are dichloroethene, ethylbenzene, methylene chloride, tetrachloroethene, xylene, and trichloroethene. The levels found in the soils vary widely to a maximum of 14,000 parts per million for total volatile organic compounds (VOCs). The SCGs for these chemicals in soil range from a low of 0.1 ppm for methylene chloride to a high of 5.5 ppm for ethyl benzene.

3.1.2 Extent of Contamination:

Groundwater monitoring well #11 found groundwater contamination of volatile organic compounds that appeared to originate from a third location of contaminated soil. In 1995, this condition was investigated and an area of soil contamination was found under the floor of the tunnel in the basement. (Area C) (see Table 1). The chemicals found in the Area C soils are a mixture of solvents similiar to those found in areas A and B. The maximum concentration found in the soil was 1,698 ppm total VOCs.

3.2 Interim Remedial Measures:

Interim Remedial Measures (IRMs) are conducted at sites when a source of contamination or exposure pathway can be effectively addressed before completion of the RI/FS. In 1994, a soil vapor extraction system (SVES) IRM was constructed. While the IRM was in operation, from March 1994 to December 1995 (22 months), approximately 17,000 pounds of volatile organic chemicals were removed from the soil in Areas A and B.

As mentioned earlier in this document, the soil vapor extraction system is presently being rebuilt to improve its efficiency and reliability. In 1996, a soil extraction well was installed in Area C for remediation of the area. (Extraction wells were installed in Areas A & B in 1994).

Approximately 5 drums of contaminated sludge was removed from the catch basin near Area A in 1996. The contaminants were oil and dichlorobenzene. The catch basin was filled in and paved over to prevent future infiltration of rain water.

3.3 Summary of Human Exposure Pathways:

This section describes the types of human exposures that may present added health risks to persons at or around the site. A more detailed discussion of the health risks can be found in Section 7.5 of the RI Report.

An exposure pathway is how an individual may come in contact with a contaminant. The five elements of an exposure pathway are 1) the source of contamination; 2) the environmantal media and transport

mechanisms; 3) the point of exposure; 4) the route of exposure; and 5) the receptor population. These elements of an exposure pathway may be based on past, present or future events.

Soil -The primary pathway for human exposure for this site is by direct contact with the soil. In Areas A & B, the contaminated soil is below grade and there is no possibility of human contact, except by excavation. No excavation is planned for these areas. Area C has contaminated soil below the floor in the basement tunnel. No excavation is planned for this area.

3.4 Summary of Environmental Exposure Pathways:

This section summarizes the types of environmental exposures which may be presented by the site.

The primary potential environmental exposure pathways would be if any animals could come in contact with the contaminated soil. Since all of the contaminated soils are below grade and covered with pavement or beneath the basement floor, no exposure pathways have been identified.

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 NYSDEC and General Instrument Corp. entered into a Consent Order (W102368807) on January 16, 1990. The Order obligates the responsible party to implement a full remedial program.

SECTION 5: COMMUNITY ASSESSMENT

Concerns of the public regarding the Proposed Remedial Action Plan have been evaluated. A "Responsiveness Summary included as Appendix A presents the public comments received and the Department's response the concerns raised. The only public comments were those raised at the public meeting. The comments generally did not pertain to the selected remedy but were more of a general nature such as is the drinking water safe, are our children safe in our yards, why is this work taking so long, etc. These questions and our answers will follow in appendix A.

SECTION 6: SUMMARY OF THE REMEDIAL GOALS AND SELECTED REMEDY:

The selected remedy for any site should, at a minimum, eliminate or mitigate all significant threats to the public health or the environment presented by the hazardous waste present at the site. The findings of the investigation of this site indicate that the site does pose a significant threat to human health and the environment.

Based on the results of the Remedial Investigation and the subsequent investigation of Area C, NYSDEC's selected remedy for OU1 will be to rebuild the soil vapor extraction system, including remediation of Area C, and operate the system until the contaminated soil is remediated to soil SCG levels.

The SVES has 16 wells in Areas A and B. Half of these wells are screened from 20 to 40 feet below grade and half of the wells are screened from 40 to 60 feet below grade. The vent well for area C is screened from 5 feet below grade to 55 feet below grade. The equipment that would be used to extract vapors from these wells would be a blower to provide suction, carbon tanks to absorb the vapors, and a carbon regeneration system that uses steam.

The SVES has already removed approximately 17,000 pounds of contaminants while it was in operation between 1994 and 1995. It is estimated that the soil remediation would be completed in 3 to 5 years.

This remedy will be effective in protecting human health and the environment and would comply with New York State standards, criteria, and guidelines.

SECTION 7: HIGHLIGHTS OF COMMUNITY PARTICIPATION

As part of the remedial investigation process, a number of Citizen Participation (CP) activities were undertaken in an effort to inform and educate the public about conditions at the site and the potential remedial alternatives. The following public participation activities were conducted for this site:

- A repository for documents pertaining to the site was established.
- A site mailing list was established which included nearby property owners, local public officials, local mediaand other interested parties.
- There was a public meeting at Hicksville Middle School, January 28, 1997.
- There was a Public Comment Period from January 20, 1997 to February 20, 1997.
- In March 1997 a Responsiveness Summary was prepared and made available to the public, to address the comments received during the public comment period for the PRAP.

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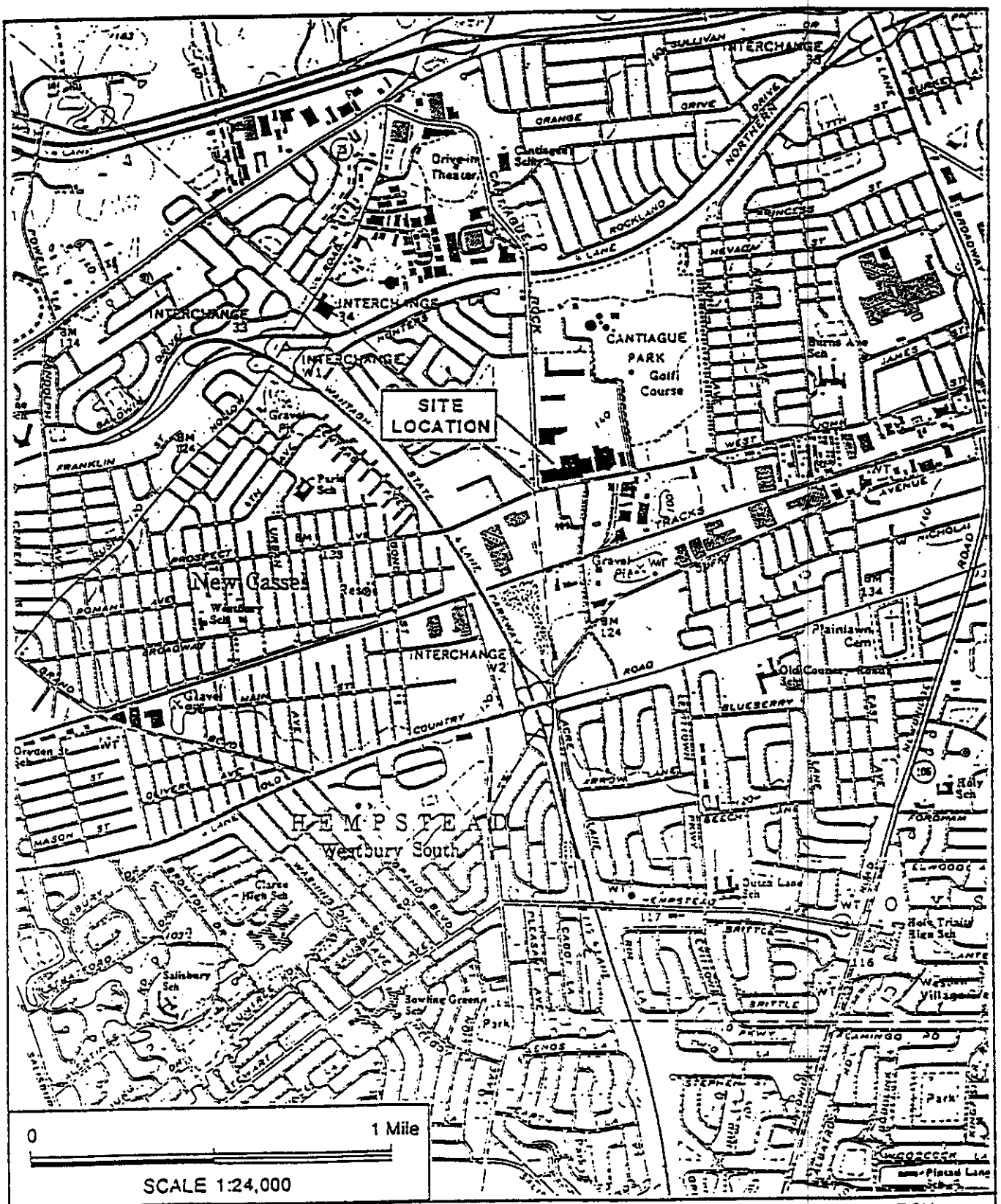

GENERAL INSTRUMENT CORPORATION
600 WEST JOHN STREET, HICKSVILLE, N.Y.

FIGURE 1

SITE LOCATION MAP

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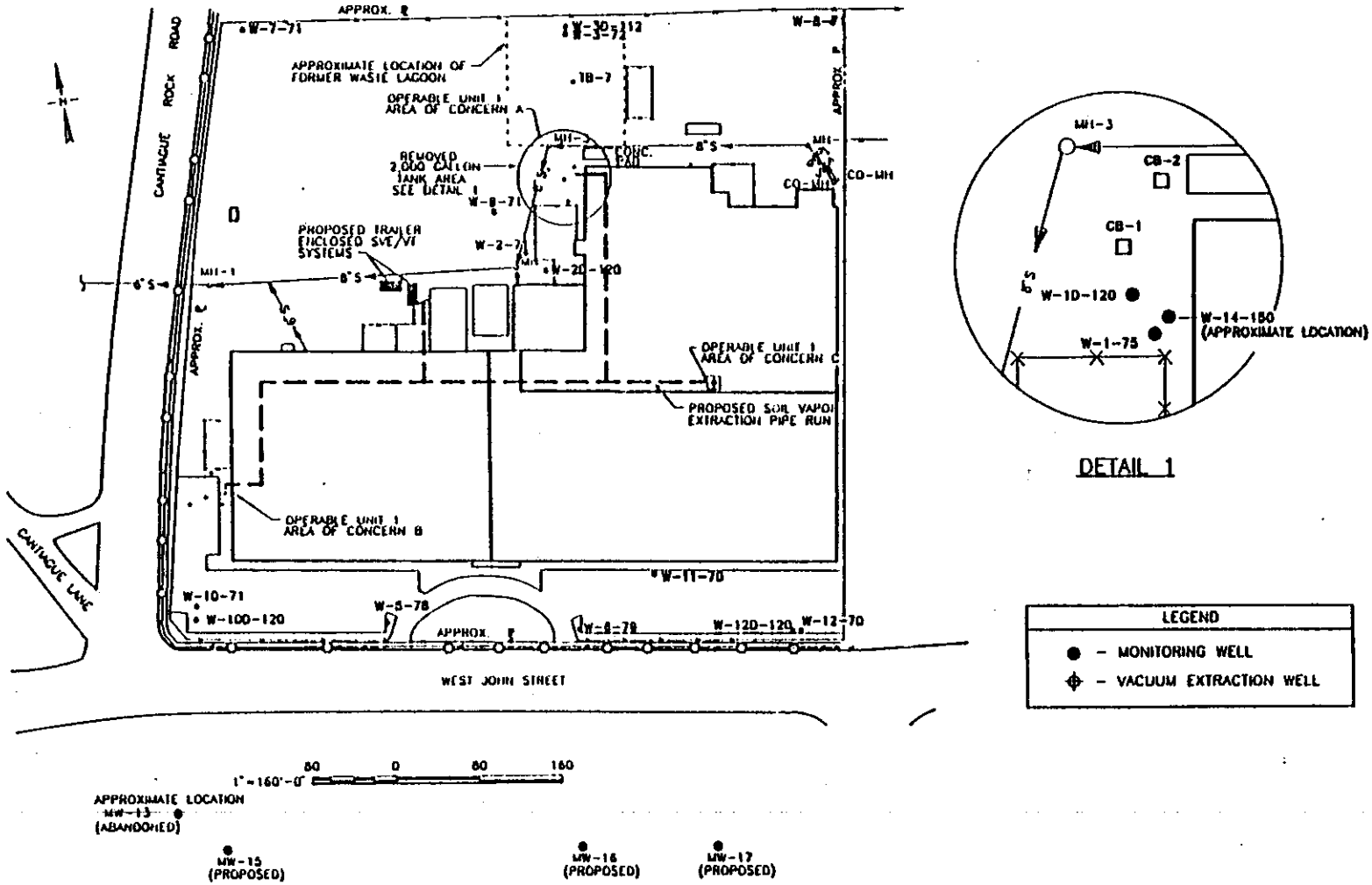

DETAIL 1

LEGEND
● – MONITORING WELL
⊕ – VACUUM EXTRACTION WELL

GENERAL INSTRUMENT
600 WEST JOHN STREET
HICKSVILLE, NEW YORK

FIGURE 2
SITE MAP

Table 1
Nature and Extent of Soil Contamination

AREA OF CONTAMINATION/ SAMPLING DATE	CONTAMINANTS OF CONCERN	SAMPLING LOCATIONS	CONCENTRATION RANGE (ppm)	FREQUENCY OF EXCEEDING SCG's	SCG (ppm)
Area A Jan. 96	Total Volatile Organic Compounds (VOC's)	Test Boring #9	ND - 1,626	3 of 5	10
		Test Boring #10	ND - 4,900	3 of 6	10
		Test Boring #11	ND -14,024	3 of 6	10
Area B March 96	Total VOC's	5' deep	4,876	1 of 1	10
Area C August 1996	Total VOC's	Area C 9' deep to 61 ft. deep	0.5 -1698	4 of 6	10

Table 2
Nature and Extent of Groundwater Contamination

SAMPLING DATE	CONTAMINANTS OF CONCERN	SAMPLING LOCATIONS	CONCENTRATION RANGE (ppb)	FREQUENCY OF EXCEEDING SCG's	SCG (ppb)
December 1994	1,2-Dichloroethene	All Monitoring Wells	ND - 710	6 of 17	5
	Ethylbenzene		ND - 6,900	2 of 17	5
	Methylene Chloride		ND - 250	2 of 17	5
	Tetrachloroethene		ND - 1,800	15 of 17	5
	Xylenes		ND - 25,000	3 of 17	5
	Trichloroethene		ND - 14,000	11 of 17	5

Appendix A

General Instrument
Operable Unit #1 - Soils

Responsiveness Summary

In accordance with New York State Regulations, the public had thirty (30) days to raise comments and questions about the Proposed Remedial Action Plan that was presented to the public at a public meeting at the Hicksville Middle School on January 28, 1997. The thirty (30) day comment period was from January 20, 1997 to February 20, 1997. We did not recieve any questions or comments by mail.

The following questions were raised by the public at the public meeting of January 28, 1997:

1. **Will the parking lot remain or be removed? Is removal required?**

   The parking lot will remain. Removal is not required.

2. **What is the risk to Cantiague Park Users?**

   We believe that there is no risk to the park users. The soil that is contaminated on the General Instrument site has no effect on the park. Also, the groundwater flow direction is towards the southwest, which is away from the park.

3. **Could the contamination from General Instrument affect adjacent properties/areas?**

   We do not believe that the soil contamination on the General Instrument site can affect adjacent properties. The groundwater under some adjacent properties may be affected but all of the surrounding area is served by public water and there is no reason for neighbors to use the groundwater for drinking.

4. **Has there been analysis for pesticides/herbicides?**

   There has been analysis for pesticides and herbicides but they have not been found to be chemicals of concern at this site.

5. **What about soil contamination?**

   The soil contamination appears to be limited to three locations - under the location of the two former underground waste solvent storage tanks and under floor in the basement tunnel inside the building.

6. **What if the PRP does not implement the ROD? What if the PRP does not comply with the Consent Order? Can he "walk away"?**

If the PRP does not implement the ROD, or if they do not comply with the Consent Order, the NYSDEC is authorized to spend State funds to complete the work. The State Attorney General would then seek reimbursement from the PRP.

7. **Explain the soil vapor extraction system. (SVES)**

The SVES has slotted pipes buried in the ground in the areas of contaminated soil. A fan draws a vacuum on the pipes. The solvents in the soil are evaporated and pulled out of the soil by the fan. The fan exhaust passes through carbon tanks which absorb the chemicals before being emitted into the air.

8. **Are there other sites in the area we need to worry about?**
Air Techniques (radiation from?), Hooker?, Gilbert Displays?, magazine distributors?

There are other sites nearby and there will be public outreach for these sites also. Information regarding future mailings and meetings can be obtained by calling Josh Epstein, NYSDEC at (516) 444-0249.

9. **Who is paying for the clean-up?**

General Instrument.

10. **What is the time frame for start/completion of OU1, OU2?**

The remediation of contaminated soils has already started. (OU1) The selected remedy is to upgrade and continue this remediation. A completion date cannot be predicted but may be several years or more. The investigation of groundwater contamination for OU2, has not been completed. This work is scheduled to begin again this year.

11. **What is the nature, extent, direction of any off-site plume?**

If there is a plume of groundwater contamination leaving the site, it would flow with the groundwater, which is to the southwest.

12. **What would happen if there is a fire in the building?**

The fire department would be called. The contaminated soil is below grade and would most likely not be affected by a fire.

13. What happens to the removed, contaminated soil?

The soil is not removed, only the contamination is removed

14. What are the contaminants?

The soil contaminants are a mixture of solvents, the most prevalent are: xylene, dichlorobenzene, ethyl benzene, trichloroethane, tetrochloroethylene.

15. What is the status/condition of public supply wells in the Hicksville area/

Most of the public supply wells in the Hicksville area have treatment to remove low levels of contamination.

16. What are the monitoring well test results?

The monitoring well test results found groundwater contamination on the General Instrument property. Off-site wells have not been installed yet.

17. What level of risk is being posed by the site? Is there exposure (through air, soil, drinking water, etc.)? What about cancer?

We believe that this site is not affecting the health of the neighbors. The air discharge from the SVES will be treated. The contaminated soil is below grade--no one is exposed to it and the drinking water is treated and safe to drink.

18. How common is the technology being used?

The soil venting technology is fairly common and is being used at numerous sites on Long Island.

19. Why has it taken so long? Why does/will it take so long?

One of the reasons why this type of work takes so long is that we must follow uniform proceedings for all sites in order to comply with our laws and regulations. These laws and regulations were written to attempt to ensure that a complete and thorough job is done at each site so that human health and the environment is adequately protected. We sometimes also have delays caused by equipment breakdown or negotiations (legal and technical).

20. Was there a discharge of hydrogen fluoride from the sump?

In the past, General Instrument discharged hydrogen fluoride (an acid) into a recharge basin (or sump) on site. This discharge ceased years ago and the sump was cleaned out and filled in.

21. Is there vapor migration?

There was testing for soil vapor migration and it was not found to be leaving the site.

22. Why is this the 1st meeting in ten (10) years?

According to State regulations, a meeting is required when there is a Proposed Remedial Action Plan completed for a site. There will be future public meetings for OU2.

23. Why wasn't I informed of this meeting? Why wasn't the Northwest Civic Association informed of the meeting?

We tried to inform the public. If anyone wishes to be added to our mailing list for this site, please contact Josh Epstein at (516) 444-0249.

24. Have there been any increases in the levels of toxins in the public water supply?

All distribution water meets NYS drinking water standards. The Hicksville area water supply is tested monthly by the Nassau County Health Department to ensure that the NYS drinking water standards are met.

25. Is there a better way to clean up the site?

There are always more than one way to clean up the site. We try to select the method that is sufficiently protective of human health and the environment and is cost effective.

26. What is Nassau County doing with regards to this site?

NYSDEC is the lead agency on this site. Nassau County assists NYSDEC with their technical expertise.

27. Are we working on this site because it is for sale?

No.

28. What does the Hicksville Water District do to treat the water?

The HWD uses air stripping towers to treat the water.

29. What happens if General Instrument goes out of business?

See question #6.

30. Do environmental problems affect real estate values?

Environmental problems sometimes affect real estate values. Sometimes the "perceived" problem is much worse than the "actual" problems. If the public learns enough about a neighboring site's actual status, the real estate values may not be affected negatively.

Appendix B-Administrative Record
General Instrument

11/83 Phase 1, By Ecological Analysts Inc, Middletown N.Y. for NYSDEC

12/89, Consent Order #W1-0236-88-07 for a Remedial Program

1/ 92, Remedial Investigation(Operable Unit 1) Stearns & Wheler, Cazenovia, N.Y.

10/ 96, Feasibility Study, Operable Unit 1- Soils, Stearns & Wheler

12/ 22/ 96, Soil Vapor Extraction Pilot Test Report, By Terra Vac, West Trenton, New Jersey

1/ 18/ 97, Proposed Remedial Action Plan, By NYSDEC