DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION

RCRA Corrective Action
Environmental Indicator (EI) RCRIS code (CA725)

Current Human Exposures Under Control

Facility Name: Schenectady International Incorporated (SII), Congress St. Facility
Facility Address: Schenectady, NY
Facility EPA ID #: NYD002070100

1. Has **all** available relevant/significant information on known and reasonably suspected releases to soil, groundwater, surface water/sediments, and air, subject to RCRA Corrective Action (e.g., from Solid Waste Management Units (SWMU), Regulated Units (RU), and Areas of Concern (AOC)), been **considered** in this EI determination?

   __X__ If yes - check here and continue with #2 below.

   ____ If no - re-evaluate existing data, or

   ____ if data are not available skip to #6 and check the "IN" status code.

BACKGROUND

Definition of Environmental Indicators (for the RCRA Corrective Action)

Environmental Indicators (EI) are measures being used by the RCRA Corrective Action program to go beyond programmatic activity measures (e.g., reports received and approved) to track changes in the quality of the environment. The two EI developed to date indicate the quality of the environment in relation to current human exposures to contamination and the migration of contaminated groundwater. An EI for non-human (ecological) receptors is intended to be developed in the future.

Definition of "Current Human Exposures Under Control" EI

A positive "Current Human Exposures Under Control" EI determination ("YE" status code) indicates that there are no "unacceptable" human exposures to "contamination" (i.e., contaminants in concentrations in excess of appropriate risk-based levels) that can be reasonably expected under current land- and groundwater-use conditions (for all "contamination" subject to RCRA corrective action at or from the identified facility (i.e., site-wide)).

Relationship of EI to Final Remedies

While Final remedies remain the long-term objective of the RCRA Corrective Action program the EI are near-term objectives which are currently being used as Program measures for the Government Performance and Results Act of 1993, GPRA). The "Current Human Exposures Under Control" EI are for reasonably expected human exposures under current land- and groundwater-use conditions ONLY, and do not consider potential future land- or groundwater-use conditions or ecological receptors. The

RCRA Corrective Action program's overall mission to protect human health and the environment requires that Final remedies address these issues (i.e., potential future human exposure scenarios, future land and groundwater uses, and ecological receptors).

Duration / Applicability of EI Determinations

EI Determinations status codes should remain in RCRIS national database ONLY as long as they remain true (i.e., RCRIS status codes must be changed when the regulatory authorities become aware of contrary information).

2. Are groundwater, soil, surface water, sediments, or air **media** known or reasonably suspected to be **"contaminated"**[1] above appropriately protective risk-based "levels" (applicable promulgated standards, as well as other appropriate standards, guidelines, guidance, or criteria) from releases subject to RCRA Corrective Action (from SWMUs, RUs or AOCs)?

	Yes	No	?	Rationale / Key Contaminants
Groundwater	x			(see below)
Air (indoors)[2]			?	(see below)
Surface Soil (e.g., <2 ft)	x			(see below)
Surface Water	x			(see below)
Sediment	x			(see below)
Subsurf. Soil (e.g., >2 ft)	x			(see below)
Air (outdoors)			?	

____ If no (for all media) - skip to #6, and enter "YE," status code after providing or citing appropriate "levels," and referencing sufficient supporting documentation demonstrating that these "levels" are not exceeded.

__X__ If yes (for any media) - continue after identifying key contaminants in each "contaminated" medium, citing appropriate "levels" (or provide an explanation for the determination that the medium could pose an unacceptable risk), and referencing supporting documentation.

____ If unknown (for any media) - skip to #6 and enter "IN" status code.

Rationale and Reference(s):

The Schenectady International Incorporated (SII), Congress Street facility (Site) operated

[1] "Contamination" and "contaminated" describes media containing contaminants (in any form, NAPL and/or dissolved, vapors, or solids, that are subject to RCRA) in concentrations in excess of appropriately protective risk-based "levels" (for the media, that identify risks within the acceptable risk range).

[2] Recent evidence (from the Colorado Dept. of Public Health and Environment, and others) suggest that unacceptable indoor air concentrations are more common in structures above groundwater with volatile contaminants than previously believed. This is a rapidly developing field and reviewers are encouraged to look to the latest guidance for the appropriate methods and scale of demonstration necessary to be reasonably certain that indoor air (in structures located above (and adjacent to) groundwater with volatile contaminants) does not present unacceptable risks.

a chemical manufacturing facility on approximately 8.0 acres southwest of the intersection of Congress Street and 10th Avenue in the City of Schenectady in Schenectady County. The facility has been inactive since 1997. Adjacent land uses include light industrial areas to the south and west; commercial facilities to the east and northwest; and residential areas to the north and northeast. The facility sits on a steep embankment that slopes down to a swale along the southwestern property line and Cowhorn Creek to the southwest and northwest of the facility. Cowhorn creek is classified as a Class C stream suitable for fish survival and propagation. Railroad tracks and a service road lie south of the site and outside of the security fence. A spur from the railroad and an area that previously contained tanks are located inside the security fence.

The original manufacturing portion of the facility began operations in 1906 and expanded its manufacturing capacity to approximately 50 million pounds per year of synthetic coatings. While these coating have many potential applications, SII specialized in magnet wire enamels for electrical insulation; insulating varnishes for electrical motors; and industrial enamels. The facility also manufactured other resins for coatings and adhesives, e.g., phenolic modifiers for use in coatings, either subsequently used on site or used as intermediates for other resins. Such products represented a relatively small portion of the total coatings industry, and reflected the specialized type of products that SII manufactured. The resin manufacturing operations primarily occurred in Buildings 4 and 5, while the industrial enamel production was located in Buildings 1 and 2 (see figure 1 for building locations).

Hazardous waste streams generated at the site included process waste streams from resin production containing solvents (primarily aqueous distillates); spent solvents from the cleaning of production vessels; and filtration wastes including used filtration elements and residual products. SII's bulk hazardous waste streams included spent solvent and distillate streams from their production units. The company also put hazardous waste from either process stream filtering, process control samples or vessel wastes, into containers. The largest waste streams at the facility were storm water, non-contact cooling water and sanitary wastes. Most of which were treated as waste water in the City of Schenectady's Waste Water Treatment Plant. Some of the non-contact cooling water and the storm water were discharged via a SPDES permitted outfall to Cowhorn Creek.

The soil contamination adjacent to the rail siding and storage vessels at the facility is probably the result of spills that are suspected to have ranged from a few gallons to a few hundred gallons, and leaks since 1906. SII determined that on-site contaminated soils were beneath buildings, in transportation areas, southwest of the buildings and up to the "swale area" between the facility and the railroad tracks. A soil gas survey identified two large sources of contamination surrounding the building number 1 and the area west of building 9 in the vicinity of the loading dock. Almost 50% of the soils, which need to be cleaned, are covered by buildings, numerous utilities and an active railroad spur.

The contaminated soils have also impacted groundwater. Groundwater monitoring wells were installed in 1984 and 1987 during preliminary investigations at the facility. The groundwater was found to be contaminated mainly by volatile and semi volatile organic contaminants such as cresol, phenol, benzene, xylene and naphthalene based hydrocarbons. Groundwater wells were also installed and samples were taken during a remedial investigation

(RI) performed in October-November 1994. Please refer to figure 1 for ground water well locations.

The majority of surface runoff from the site enters Cowhorn creek either directly via overland flow or indirectly through storm sewers. A drainage swale is located along the western property boundary between the site and the rail road. Shallow groundwater moves in a southerly direction through the site, partly breaks into seeps along the embankment flowing into the swale and finally discharges into the Cowhorn creek. The drainage swale prior to the implementation of the remedial measure described in Section 3 received surface runoff from both onsite and off-site locations and often was dry during summer months.

Site Investigations

Numerous site wide investigation have been performed prior to and in conjunction with the Remedial Investigation/Feasibility Study (RI/FS) consent order. The following is a partial list of the reports on file that detail the findings of those investigations:

Report Title	Date
Hydro-geologic Investigation Report	September 1993
Remedial Investigation Report	January 1996
Feasibility Study Report	July 1996
Supplemental Remedial Investigation Report	July 1998
Supplemental Feasibility Study Report	December 2000
Supplemental Off-Site Sampling Report	January 2003

The purpose of the Remedial Investigation (RI) was to define the nature and extent of any contamination resulting from previous activities at the site. The RI report describes field activities and findings of the investigation in detail. The RI included the installation of monitoring wells and soil borings, chemical analysis of soil, groundwater, surface water and sediment samples, soil gas surveys for volatile and semi-volatile organic compounds and characterization of groundwater hydro-geologic conditions and physical properties of site soils.

To determine which media (soil, groundwater, etc.) contain contamination at levels of concern, the RI analytical data was compared to environmental Standards, Criteria, and Guidance Values (SCGs). NYS DEC Division of water Technical and Operational Guidance Series (1.1.1) and NYS Sanitary Code part 703.5 contain guidance values for the groundwater, drinking water and surface water for the site. The Department used the NYSDEC Technical and Administrative Guidance Memorandum (TAGM) 4046 " Soil Cleanup Guidelines for the Protection of Groundwater, background conditions and risk-based remediation criteria" for SCGs for soils. SCGs for the sediments are based on the NYSDEC, Division of Fish, Wildlife and Marine Resources (DFWMR) document "Technical Guidance for Screening Contaminated Sediments".

As part of the remedial investigations, SII collected many soil, soil gas, groundwater, surface water and sediment samples at the site to characterize the nature and extent of contamination. These samples were analyzed for volatile and semi-volatile organic, pesticides, polychlorinated biphenyls (PCBs) and metals. Based on the results from different investigations, the following table represents a typical cross section of contaminants found in different environmental media at the site . The Complete list of contaminants and their concentrations can be found in the Feasibility Study Report 1996 and the Supplemental Feasibility Reports (December 2000, January 2003).

Chemicals of Concern:

Media	Contaminant of Concern	Maximum Concentration Detected (ppb)*	SCGs (ppb)
Soils	Xylene	3,800,000	1,200
	Chlorobenzene	3,500,000(est.)	1700
	Ethylbenzene	500,000 (est.)	5500
	2-Methylphenol	190,000	100 or MDL
	Phenols	160,000	30
	4-Methylphenol	370,000	900
	Napthlene	1,600,000	13,000
	Total VOC's	12,200,000	-
	Total SVOC's	4,158,000	-
Groundwater	Xylene	24,000	5
	Ethylbenzene	3,900	5
	Toluene	220	5
	2-Methylphenol	97	5
	Phenols	97	1
	Napthalene	5,300	10
Sediments	Xylene	26,000	1,200
	Cresol	52,000	100
	Phenols	38,000	30
	Napthalene	11,000	13,000

* maximum concentration detected in one or more samples

On-Site Contaminated Media:

Soils:

The Supplemental Off-site Sampling Report dated January 24,2003 showed that off-site soils (0'-2') had low to moderate concentrations of polynuclear aromatic hydrocarbons (PAHs) such as Benzo(a)anthracene (52 ppb-2100ppb), and Benzo(a)pyrene (49-2100 ppb) and high concentrations (37-160000 ppb) of phenol. The phenol levels exceeded the action levels in the NYS DEC Technical and Administrative Guidance Manual 4046, dated January 1994.

In the Supplemental Remedial Investigation Report dated 7/98, the soil analytical results for the soil samples taken in the area shown in gray on Figure 3 indicated that the area was contaminated with Benzene, toluene, ethylbenzene, xylene, phenols, napthalenes and some polynuclear aromatic hydrocarbon compounds. This is consistent with the spill history for the site, which documented spills of various materials occurring along the railway siding and the former tank area. There is documentation showing that several of these spills traveled overland beside the railway to the southern end of the site, entered the drainage swale along the railway and, then, flowed northwesterly towards the Creek.

A soil gas survey included with the Remedial Investigation Report-Congress Street Plant dated January 1996 identified two large sources of contamination surrounding Building 1 and the area west of Building 9 in the vicinity of the loading dock.

A soil gas survey was conducted as part of the 9/93 Hydrogeologic Investigation identified potential chemical source areas and migration pathways. The most prominent compounds detected were benzene, toluene, ethylbenzene, xylene, tetrachloroethylene, dichloroethene, trichloromethane and trimethylbenzene. Two areas were considered to be potential chemical source areas. These are the large area surrounding Building 1 and the area west of Building 9 in the vicinity of the loading dock (Figure 2). The areas located south of the railway generally represented one elevated response reading and are not considered to be a potential source of chemicals.

Almost 50% of the soils, which need to be cleaned, are covered by buildings, numerous utilities and an active railroad spur. Also, as the facility is built on a steep embankment, there is also a concern regarding the stability of the slope if soils or building foundations are removed. The situation is being annually re-examined to assist in the determination of what final action is to be taken.

Groundwater:

A drainage swale is located along the property's southwest boundary between the site and the rail road. Shallow groundwater moves in a north westerly direction through the site. Before implementation of second interim corrective measure involving extraction wells

and a drain, the ground water partly broke into seeps along the embankment flowing into the swale and finally discharging into the Cowhorn creek. These seeps don't exist anymore. A second set of individual seeps near a storm water outfall however flow directly into the creek. The average groundwater velocity is estimated to be approximately 45 feet/year.

Based on the groundwater flow conditions beneath the site and groundwater quality data, the total chemical mass flux leaving the site via groundwater flow was calculated to be approximately 0.275 pounds/day. The receptor for chemical migration from the site is Cowhorn Creek.

The chemical constituents detected in the groundwater monitoring wells include ethylbenzene, xylene, toluene, trimethylbenzenes, napthalenes and phenols. The highest concentrations were reported in the groundwater monitoring wells located in the vicinity of the soil source areas (i.e., wells OW 10-94, OW-1, OW 11-94 and OW3) and down gradient of the soil source areas (wells OW7A-92, OW7B-92 and OW14-94) (Remedial Investigation Report, January 1996). Additionally, LNAPL was found in monitoring well OW10-94 located in the swale along the western edge of the site. The major constituents in the LNAPL were xylene (1,000 mg/L), 2-methylnapthalene (5,100 mg/L) and naphthalene (47,000 mg/L). It is expected that the LNAPL at PW10-94 originated from a 1972 spill of Solvesso 150.

Surface Water:

Cowhorn Creek: Surface water Site related parameters were not detected in the surface water samples collected from Cowhorn Creek. Based upon the site hydrogeology and the chemical distribution in the groundwater, it is assumed that a small chemical flux is discharged to Cowhorn Creek. The fact that site related parameters were not detected in the surface water samples from the creek, indicates that these discharges are readily assimilated by the creek flows via dilution and potentially other processes such as bio-degradation and volatilization.

Drainage Swale Surface Water: VOC's and SVOC's were however detected in surface water in drainage swale during 1994 Investigation (Remedial Investigation Report, January 1996). The highest concentrations, up to 9700 ppb were reported for phenolic compounds. VOC's were reported at similar concentrations at both locations sampled. High levels of iron were also reported (up to 74000 ppb) in swale surface water. The drainage swale receives surface runoff from both onsite and off-site locations and often is dry during summer months.

Seeps: Seep samples from the slopes of the embankment indicated presence of several Volatile Organic Compounds and semi-volatile organic compounds. The investigations before August 12, 2002 investigation confirmed presence of Xylene (58-130 ppb), toluene (38–49 ppb), 1,2,4-trimethylbenzene (2-51 ppb), 2,4 dimethylphenol (ND-160ppb) and total non-chlorinated phenols (14-380 ppb) in seeps along the steep embankment slope.

These seeps ceased to exist after implementation of the corrective measure involving extraction wells and a drain.

During August 2002 sampling event very low concentrations of VOC's (0.3 ppb-chloroform, 10ppb-carbon disulfide) and semi-volatile contaminants (acenaphthene-4ppb, dibenzofurane-2 ppb estimated, phenol-67ppb) were detected in two samples from the seeps near the storm water outfall. The seeps, that are considered unclassified surface water, flow into the Cowhorn creek.

Off-site Contaminated Media:

Groundwater:

Shallow groundwater moves in a southwesterly direction through the site, partly breaks into seeps along the embankment flowing into the swale and finally discharges into the Cowhorn creek. The site related parameters were not detected in the surface water ,collected from the Cowhorn creek, during 1994. A recent sampling event that involved sampling of surface water in Cowhorn creek off site did not yield any substantial levels (supplemental off site Sampling Report, January 23, 2003) of site specific contaminants.

Surface water:

The drainage swale located along the western property boundry between the site and the rail road, drains into the Cowhorn creek. VOC's and SVOC's were detected in surface water in drainage swale during 1994 Investigation (Remedial Investigation Report, January 1996). The site related parameters were not detected in the surface water ,collected from the Cowhorn creek, during past investigations.

Sediments

- Cowhorn Creek Sediments: : The sediments collected upstream of the facility during 1994 investigation detected more contaminants than in two downstream samples. Some of the parameters of concern detected in sediments at downstream locations were phenol (220ppb), 2-methylnaphthalene (91 ppb estimated), toluene (25ppb), floranthene (90-130ppb), phenanthrene (74-440 ppb), pyrene (71-120ppb) and bis(2-ethylhexyl)phthalate (440 ppb). Analytical results for metals indicate similar results for upstream and downstream sample with an exception of mercury that was detected at 1.1 ppm. This detection, however could not be confirmed through analysis of a duplicate sample from the same location.

- Drainage Swale Sediments: Prior to the remedial action described in section 3, the sediment samples collected from the swale sediment indicated higher

contaminant concentrations towards the middle of swale as compared to the downstream location The highest concentrations were reported for phenolic compounds (2,4-dimethylphenol-61ppm) in December 1992 investigation. The concentrations of inorganics in the sediment samples from the swale were generally consistent with levels reported in Cowhorn creek sediments with slightly higher levels of iron (38 ppm) and lead (0.6 ppm).

Indoor Air

Soil and soil gas investigations have shown that majority of contaminated soils are covered by buildings, numerous utilities and an active railroad spur. Thus, there is a possibility that there may be some contaminants impacting the indoor air quality in the buildings located at the facility. The facility ceased its manufacturing operations in 1997. It does not maintain any active process and/or administrative areas at the facility. All buildings at the facility are currently vacant. Even though there is a possibility that air quality inside the buildings is impacted by underlying contamination, absence of any potential receptors eliminates any concern regarding human exposure and its impact on human health.

Outdoor Air:

The facility is closed and has tight security. The entry on the facility property is restricted to SII employees and authorized personnel only. The only locations where personnel might be exposed to contaminated outdoor air is where they enter the facility to maintain groundwater-collection system and building heating. Both of these activities are very short term in nature and the fact, that all Schenectady International personnel are covered by a health and safety plan that complies with Occupational, Safety and Health Administration (OSHA), alleviate any concern for a meaningful exposure. These health and safety plans include: training; use of personal protective equipment; medical monitoring; and air monitoring. Thus, all personnel are trained and are part of a medical monitor program. Also, OSHA requires that any non-Schenectady International personnel involved with any work on-site comply with a health and safety plan. These health and safety plans must include training; use of personal protective equipment; medical monitoring; and air monitoring.

3. Are there **complete pathways** between "contamination" and human receptors such that exposures can be reasonably expected under the current (land- and groundwater-use) conditions?

Summary Exposure Pathway Evaluation Table

Potential **Human Receptors** (Under Current Conditions)

"Contaminated" Media	Residents	Workers	Day-Care	Construction	Trespassers	Recreation	Food[3]
Groundwater	no	no	no	no	no	no	no
Air (indoors)	no	no	no	no	no	no	no
Soil (surface; <2 ft)	no	no	no	Yes	no	no	no
Surface Water	no	no	no	no	no	no	no
Sediment	no	no	no	no	no	no	no
Soil (subsurface, >2 ft)	no	no	no	Yes	no	no	no
Air (outdoors)	no	no	no	no	no	no	no

Instructions for Summary Exposure Pathway Evaluation Table:

1. Strike-out specific Media including Human Receptors' spaces for Media which are not "contaminated" as identified in #2 above.

2. enter "yes" or "no" for potential "completeness" under each "Contaminated" Media -- Human Receptor combination (Pathway).

Note: In order to focus the evaluation to the most probable combinations some potential "Contaminated" Media - Human Receptor combinations (Pathways) do not have check spaces ("___"). While these combinations may not be probable in most situations they may be possible in some settings and should be added as necessary.

___ If no (pathways are not complete for any contaminated media-receptor combination) - skip to #6, and enter "YE" status code, after explaining and/or referencing condition(s) in-place, whether natural or man-made, preventing a complete exposure pathway from each contaminated medium (e.g., use optional Pathway Evaluation Work Sheet to analyze major pathways).

__X__ If yes (pathways are complete for any "Contaminated" Media - Human Receptor combination) - continue after providing supporting explanation.

____ If unknown (for any "Contaminated" Media - Human Receptor combination) - skip to #6 and enter "IN" status code.

Rationale and Reference(s):

Groundwater: To eliminate any pathways of exposures, the Department has worked with Schenectady International to implement several Interim Corrective measures. They are as follows:

- **Interim Remedial Measures (IRMs)**

[3] Indirect Pathway/Receptor (e.g., vegetables, fruits, crops, meat and dairy products, fish, shellfish)

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. Two IRMs were designed for the collection of Light Non-Aqueous Phase Liquid (LNAPL) that was found in groundwater monitoring well OW-10-94. This LNAPL originated from a tank spill circa 1974 and is believed to be confined to the vicinity of OW-10-94. The first IRM was the installation of a well skimmer system, startup of which was initiated in mid 1996. In May 1997 after approximately one year of attempting to place the skimmer system in continuous operation, it was determined that the system could not be maintained in place and was not an effective LNAPL removal method. Subsequently, SII proposed a second IRM to contain the contaminated groundwater.

The second IRM consists of a collection drain and four extraction wells (figure 1) to intercept, extract, and treat the contaminated groundwater and LNAPL. Between June 2000 and November 2001, SII installed four vertical pumping wells and a 700 foot drain. The drain runs along the swale at a depth of 10 feet at the southeast end to 25 feet at the northwest end. Any groundwater flow not intercepted, discharges into the Cowhorn creek via seeps. The treatment system became operational December 2001. The current IRM has been effective in reducing the flow of contaminated groundwater off site to the creek. Before the current IRM, the seeps appeared to have little or no impact on the quality of Cowhorn creek water. With the current IRM operating, the amount of contamination discharging in creek via groundwater has been significantly reduced eliminating any meaningful impact on the creek waters..

A third IRM is being implemented in the form of a security fence (Figure 2) to make seeps and other adjoining contaminated off-site areas not accessible to the unauthorized visitors. Along with the existing security fence in place, this additional measure will eliminate potential of any exposure to unauthorized visitors, trespassers and recreational visitors both on and off-site.

Final Remediation

For the remedial purpose, the facility site has been divided into two Operational Units (OUs); the first, OU #1 dealing with groundwater treatment and containment; and the second, OU #2 to address the source (soils) remediation. In March 1998, the DEC issued a Record of Decision (ROD) for the OU #1 (groundwater) for SII, Congress Street Site. The ROD called for groundwater containment and treatment, plus collection and treatment of LNAPL. The primary components of the selected remedy are as follows:

1. A remedial design program to verify the components of the conceptual design and provide the details necessary for the construction, operation and maintenance, and monitoring of the remedial system.

2. A remedial system consisting of a "french drain" with a sufficient number of vertical wells to assure capture of contaminated groundwater leaving the site. The vertical wells will be located in the area(s) where the installation of the "french

drain" can't be constructed due to topography and/or access.

3. Collection of groundwater and seep water and treatment either on-site or off-site (dependent upon cost), plus collecting and treating the LNAPL off-site.

4. Institutional controls will be implemented. These controls are maintaining the security fence and placing appropriate deed restrictions.

5. Since the remedy results in untreated hazardous waste remaining at the site, a long term monitoring program will be part of the remedy. This program will allow the effectiveness of the selected remedy to be monitored and will be a component of the operation and maintenance for the site. A soil remedy, if enacted, might lead to future reduction of the required monitoring.

It is expected that the current IRM's, comprising of security fences, extraction wells, collection drains and treatment, will satisfy this ROD and will become part of the final remedy for Operational Unit # 1.

Operational Unit # 2 (soils: source remediation) is being currently evaluated and will be addressed in a future ROD.

4. Can the exposures from any of the complete pathways identified in #3 be reasonably expected to be **"significant"**[4] (i.e., potentially "unacceptable" because exposures can be reasonably expected to be: 1) greater in magnitude (intensity, frequency and/or duration) than assumed in the derivation of the acceptable "levels" (used to identify the "contamination"); or 2) the combination of exposure magnitude (perhaps even though low) and contaminant concentrations (which may be substantially above the acceptable "levels") could result in greater than acceptable risks)?

__X__ If no (exposures can not be reasonably expected to be significant (i.e., potentially "unacceptable") for any complete exposure pathway) - skip to #6 and enter "YE" status code after explaining and/or referencing documentation justifying why the exposures (from each of the complete pathways) to "contamination" (identified in #3) are not expected to be "significant."

____ If yes (exposures could be reasonably expected to be "significant" (i.e., potentially "unacceptable") for any complete exposure pathway) - continue after providing a description (of each potentially "unacceptable" exposure pathway) and explaining and/or referencing documentation justifying why the exposures (from each of the remaining complete pathways) to "contamination" (identified in #3) are not expected to be "significant."

____ If unknown (for any complete pathway) - skip to #6 and enter "IN" status code

Rationale and Reference(s): SEE DISCUSSION ABOVE

5. Can the "significant" exposures (identified in #4) be shown to be within acceptable limits? **NA**

____ If yes (all "significant" exposures have been shown to be within acceptable limits) - continue and enter "YE" after summarizing and referencing documentation

[4] If there is any question on whether the identified exposures are "significant" (i.e., potentially "unacceptable") consult a human health Risk Assessment specialist with appropriate education, training and experience.

justifying why all "significant" exposures to "contamination" are within acceptable limits (e.g., a site-specific Human Health Risk Assessment).

____ If no (there are current exposures that can be reasonably expected to be "unacceptable")- continue and enter "NO" status code after providing a description of each potentially "unacceptable" exposure.

____ If unknown (for any potentially "unacceptable" exposure) - continue and enter "IN" status code

Rationale and Reference(s): **N.A**

6. Check the appropriate RCRIS status codes for the Current Human Exposures Under Control EI event code (CA725), and obtain Supervisor (or appropriate Manager) signature and date on the EI determination below (and attach appropriate supporting documentation as well as a map of the facility):

__X__ YE - Yes, "Current Human Exposures Under Control" has been verified. Based on a review of the information contained in this EI Determination, "Current Human Exposures" are expected to be "Under Control" at the Schenectady International Incorporated (SII) facility located at Congress St., Schenectady, NY under current and reasonably expected conditions. This determination will be re-evaluated when the State becomes aware of significant changes at the facility.

____ NO - "Current Human Exposures" are NOT "Under Control."

____ IN - More information is needed to make a determination.

Project Manager_ (signature) Howard S Brezner Date 09/04/2003
(print) Howard S. Brezner, P.E.
(title) Environmental Engineer II

Regional Engineer (signature) Clifton J. Van Guilder Date 09/04/2003
(print) Clifton J. Van Guilder , P.E.
(title) Regional Solid & Hazardous Materials Engineer
(EPA Region or State) NYSDEC

NYS DEC Central Office (signature) Edwin Dassatti Date 09/04/2003
(print) Edwin Dassatti P. E.
(title) Director, Bureau of Hazardous Waste & Radiation Management
(EPA Region or State) NYSDEC (Central Office)

Locations where References may be found:
NYSDEC, Region 4, 1150 N. Westcott Road, Schenectady, NY 12306

Contact telephone and e-mail numbers

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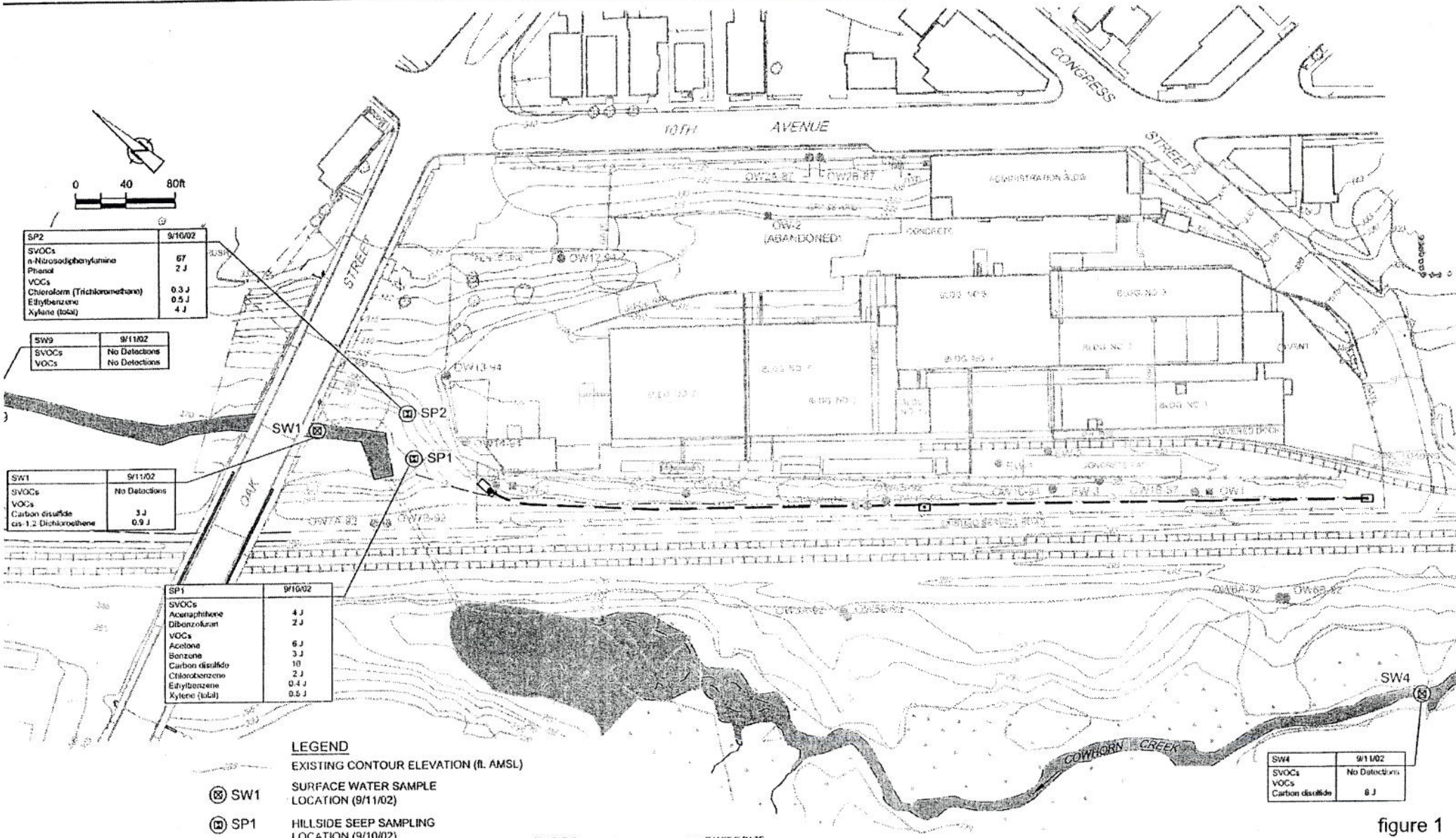

figure 1

DETECTED PARAMETER CONCENTRATIONS IN
SURFACE WATER AND SEEP SAMPLES
SUPPLEMENTAL OFF-SITE SAMPLING
CONGRESS STREET PLANT
Schenectady International Inc.

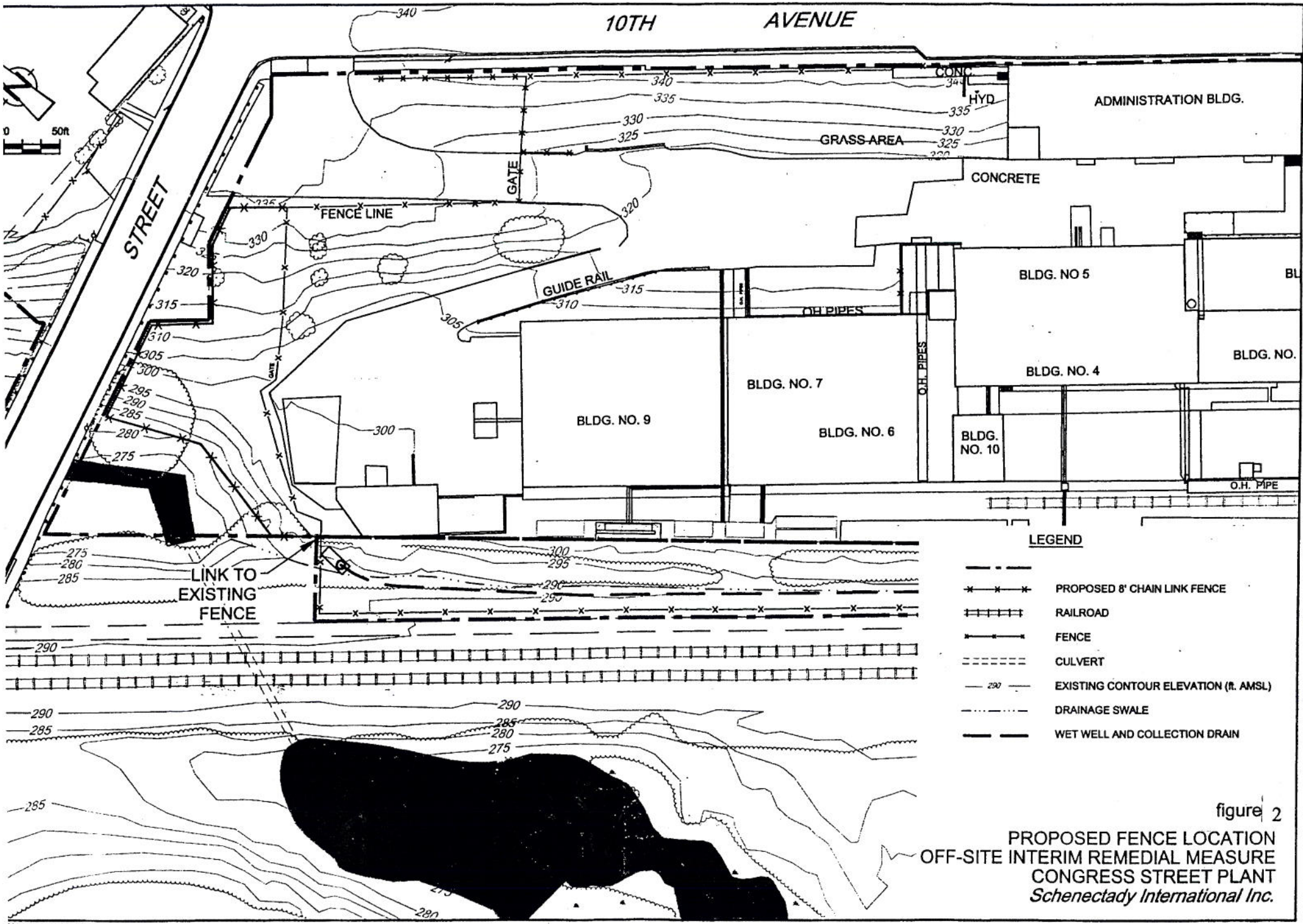

figure 2

PROPOSED FENCE LOCATION
OFF-SITE INTERIM REMEDIAL MEASURE
CONGRESS STREET PLANT
Schenectady International Inc.

GN-WA004 MAY 16/2003