DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION

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

Current Human Exposures Under Control

Facility Name: **Triumvirate Environmental Inc. (former Chemical Waste Disposal Corp.)**
Facility Address: **42-14 19th Avenue, Astoria, New York 11105-1082**
Facility EPA ID #: **NYD0077444263**

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 RCRAInfo national database ONLY as long as they remain true (i.e., RCRAInfo 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			Groundwater monitoring./ Volatile Organic Contaminants(VOCs): Tetrachloroethene(PCE) trichloroethene(TCE), 1,1,1-trichloroethane(TCA), 1,2-dichloroethene(DCE), vinyl chloride, and benzene, toluene and xylene(BTX); and PCBs.
Air (indoors)[2]		X		See Below
Surface Soil (e.g., <2 ft)		X		See Below
Surface Water		X		
Sediment		X		
Subsurf. Soil(e.g., >2 ft)	X			VOCs (as above) & PCBs.
Air (outdoors)		X		

____ 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):

Triumvirate Environmental, Inc. (TEI) [former Chemical Waste Disposal Corporation (CWD)] is located at 42-14 19th Avenue Astoria, Queen, New York. TEI has been in continuous operation as a commercial hazardous waste storage facility since 1964. Past treatment operations (1964-1983) included running several distillation units for the purpose of recycling spent chlorinated and non-chlorinated solvents. Tetrachloroethylene, trichloroethylene, and acetone were the primary solvents distilled and reclaimed. Spillage of chlorinated and non-chlorinated solvents in the vicinity of the reclamation units, and discharges to the old dry well, are believed to be the major sources of contamination to soils and groundwater.

TEI currently provides temporary storage for hazardous waste, PCB waste, and solid waste that it collects from various generators around the area and then transports off-site for treatment, recycling and/or disposal. The site is approximately 13,500 square feet and consists of two buildings. The outer court yard area, where majority of the past distillation process and spillage is believed to have occurred, is now a completely enclosed warehouse (outer warehouse) with a new concrete pad. The outer warehouse is used for loading and unloading waste materials, and contains several newly constructed hazardous waste storage units. All waste transported to the facility is off-loaded indoors in a special designated area, and carted around to outer warehouse and interior storage areas. These storage areas are equipped with secondary containment structures to protect against potential spills. Figure 1 shows the current layout of the facility.

Geology and Hydrology.

The facility sits on reclaimed tidal wet lands that had been filled in over a 65 year period beginning in 1891 with dredge spoils, construction debris, excavation material from other sites, and solid waste. Both the unsaturated and saturated soils are composed of this fill material, which extends from about 14.5 to 20 feet below grade in the area underneath the site, and to 12 to 16 feet off-site. The groundwater table underneath the site is about 5 to 8.5 feet below the surface, and is considered for the most part to be confined by the peat layer that reaches to 4 feet below grade, and the silt/clay layer that extends 9 feet deeper (to 13 feet) to compose the underlying tidal flat. The tidal flat is underlain by up to 50 feet of glacial sand, below which lays 50 more feet of clay. Given that most of the buildings in this area have been constructed on piles, and deep sewers have been installed along adjacent streets, some penetration of these confining layers has probably occurred.

The ground water in the area generally flows in a northeasterly direction. However the groundwater appears to be influenced by the 20-30 foot topographic elevation located to the east-northeast of the site, which may facilitate the recharge of the shallow water system and thereby influence the gradient in this area.. The elevation appears to divert groundwater flow towards the north. The close proximity of the site to Bowery Bay and Rikers Island channel, and the possibility of tidal influence in the area are other factors impacting the levels and the direction of the groundwater under the site. Figures 2 and 3 show the locations for most of the groundwater monitoring wells installed on- and off-site, and the direction of groundwater flow.

No groundwater in the area is used for drinking purposes, and the nearest residential property is approximately 800 feet southwest (up gradient) of the facility.

Remedial Investigations:

Several subsurface investigations were conducted by CWD at the facility prior to the most recent phases I and II of the RCRA facility Investigations (RFIs). The pre-RFI investigations, involving a soil gas survey, soil borings, and monitoring wells at and around the facility, confirmed presence of subsurface soil and groundwater contamination. The two RFIs were conducted to define the nature and extent of contamination resulting from previous activities at the site. These investigations included sampling from new and existing monitoring wells, soil borings and characterization of groundwater hydro-geologic conditions and physical properties of site soils. Ground water and soil samples were analyzed for volatile and semi-volatile organic compounds, PCBs, pesticides and inorganic compounds.

To determine which media (soil, groundwater, etc.) contain contamination at levels of concern, the RFI analytical data was compared to the New York State DEC 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 and background conditions and risk-based remediation criteria" for SCGs for soils.

Contaminants of Concern:

Numerous site specific chlorinated and non-chlorinated volatile organic constituents (VOCs), exceeding NYS DEC SCGs, were detected in the unsaturated soil and the groundwater. Based upon all available data, the following table (Table 1) lists a typical cross section of VOCs, their most recent concentrations in various media at the site, and recommended soil cleanup and groundwater protection concentrations. More detailed investigation results from Phase I and II of the RFI can be found in RFI reports, dated January 1995 and February 1996.

Table 1

CONTAMINANT	RANGE FOR CONTAMINANT IN SOIL (mg/kg)	SOIL CLEANUP LEVEL (mg/kg)	RANGE FOR CONTAMINANT IN GROUND-WATER (µg/l)	GROUNDWATER PROTECTION CONCENTRATION (µg/l)
Benzene	ND TO 120.0	0.06	ND TO 20,000	0.7
1,2-Dichloroethene (Totals) (DCE)	ND TO 120.0	0.3	ND TO 140,000	5.0
Tetrachloroethene (PCE)	0.087 TO 3,400.0	1.4	ND TO 32,000	5.0
Toluene	ND TO 260.0	1.5	ND TO 8,300	5.0
1,1,1-Trichloeoethane (TCA)	ND TO 200.0	0.8	ND TO 13,000	5.0

Trichloroethene (TCE)	0.028 TO 1,800.0	0.7	ND TO 110,000	5.0
Vinyl Chloride	ND TO 5.5	0.2	ND TO 8,000	2.0
Xylene	ND TO 350.0	1.2	ND TO 8,400	5.0

The saturated soils were found to be contaminated with VOCs down to the confining layers, with the contaminants penetrating into the upper portions of the underlying silt and clay tidal flat but decreasing substantially with depth. VOCs were detected in soils sampled from off-site locations, but the contamination appeared to be confined to spill areas very close to the facility. The highest VOC soil and groundwater contaminant levels were detected at the western part of the site, in line with the former distillation unit location.

Groundwater:

Levels of chlorinated VOCs (1,1-Dichloroethane-1600ppb, Trans-1,2-Dichloroethylene-1900ppb,Vinyl chloride-1100ppb, Total VOCs-5687 ppb) exceeding groundwater standards were detected in up gradient well # 7 during a sampling event in 1985. Much lower levels (Total VOCs-168 ppb) however, were detected in this up gradient well during the 1995 ground water sampling event. Groundwater samples from off-site well W-1, which is slightly cross-gradient of the potential disposal areas at TEI, high levels of chlorinated VOCs (Total VOCs-11550 ppb) were detected in 1985. This well was not sampled again but during 1995 sampling event MW-13S which sits slightly down gradient of W-1 location, showed much lower concentrations of VOCs (Total VOCs-168ppb).

During RFI phase II , cross-gradient wells MW-19 and MW-22 sampling showed low concentrations of total VOCs that ranged from 28 to 503 ug/L for some of the significant chlorinated organic constituents identified in the Table 1. The highest concentrations of VOCs were detected in the onsite and immediately down gradient wells MW-11, 12, and 20 with total VOCs ranging from 27048 ug /L to 397,218 ug /L. The wells located further down gradient and off-site, MW-13 and 23, contained relatively low concentrations of total VOCs of 184 and 18 ug/L, respectively. Monitoring well MW-17 located off-site and the greatest distance cross-gradient from TEI along 43rd street contained total VOCs of 4,520 ug/L (Total VOC's during 1991 sampling-6291 ppb) with most of the significant contaminants exceeding their Standards. The concentrations detected in cross gradient wells W-1 and MW-17 suggests that some of the contamination in the area may be contributed by sources other then TEI. Lower contaminant concentrations across the street, down gradient of TEI, suggest that sewer and utility lines could be providing preferential pathways to the contaminated groundwater, preventing it from follow its natural gradient.

The most significant chlorinated SVOCs were detected in one down gradient well boring located immediately adjacent to the facility. The concentrations ranged from non-detect to

4,400 ug/L for trichlorobenzene which is above its Standard of 5.0 ug/L. However, no SVOCs were detected in down gradient wells located across from TEI. On average polycyclic SVOCs were detected in the groundwater below standards, with most of the samples reported as non-detectable.

Significant groundwater concentrations of PCBs were also detected in one onsite well and two wells located immediately adjacent to the facility off-site. Concentrations ranged from 78 to 290 ug/L, well above the Standard of 0.01 ug/L. PCBs were not found in up gradient wells or in down gradient wells located across the street from TEI

Although DNAPL (dense aqueous phase liquid) was not observed during sampling it is believed to have collected on top of the tidal flat as evidenced by comparing the concentrations of select volatile organic constituents with their corresponding pure phase water solubility. DNAPL compounds are usually detected at concentrations of less than 10% of its pure phase water solubility with concentrations of greater than 1% indicative of DNAPL presence.

Soils:

The highest volatile contamination was found in samples from the potential spill source area or in the area of the highest groundwater contamination.. The total VOC concentrations in soils ranged from about 807 ppb in surficial soils (sample at 0'-2') from boring B-14, to 6,118,900 ppb in Boring B-17 (14'-16') and to 6,250,300 ppb in boring B-20 (14'-16'). Soils were also analyzed for semi-volatile organic constituents (SVOCs) and inorganic metal contaminants. Even though some of individual semi-volatile compounds, such as phenol and benzo(a)pyrene, exceeded their corresponding recommended soil clean up numbers, the total SVOCs were below the recommended soil cleanup objective of 500 mg/kg. The SVOCs detected at the higher concentrations in the soil were chlorinated constituents which can be traced to the facility's past reclamation operations.

The concentration and distribution of metal contamination found in the soils onsite and off-site suggests that these contaminants are contributed by the fill material underlying this entire area.

PCB contamination was detected in the saturated and unsaturated soils both onsite and off-site immediately adjacent to the facility in a random pattern. At off-site locations farther from the facility PCBs were not detected in the soils. Total PCB concentrations in unsaturated soils from 2 to 6 feet in both depth onsite and immediately adjacent to the facility ranged from non-detect to 93 mg/kg. A residual PCB soil concentration of 10 mg/kg is considered acceptable for facilities with deed restrictions that only allow for commercial or industrial use of the property. In deeper saturated soils in and around the site total PCB concentrations ranged from 0.21 to

780 mg/kg. A substantial amount of contaminated soils have been removed from the outer courtyard area as a part of construction process for outer warehouse,

Indoor Air

A subsurface soil gas investigation conducted in July 2003 that showed significant levels of sub surface gas vapors (Sub-Surface Soil Gas Results dated July 29, 2003) below the floor slab of the office and interior warehouse areas. Table 2, below, presents some of the major contaminants with their concentrations detected during July 2003 investigation. Subsequently indoor air sampling was conducted to determine if sub-surface vapors are impacting the quality of the facility's indoor air, especially in the office area. The results (Sampling Data Results provided by Rick Mandile of Sage Environmental, via e mail dated September 3, 2003) from the real time indoor air quality testing, are presented in Table 2 below along with OSHA permissible exposure limits (PEL).

Table 2

Contaminant	Site Use		Significant Concentrations Detected in Sub-Surface Soil Gas	Range of Concentrations detected in Indoor Air ($\mu G/M^3$)	OSHA PEL ($\mu G/M^3$)
	Past	Present			
Cis-1,2-Dichloroethene	Yes	Yes	Yes	9.9-63.8	790000
1,1,1-Trichloroethane	Yes	Yes	Yes	2.7-7.6	190000
Tetrachloroethene	Yes	Yes	Yes	59.6-319	678000
Trichloroethene	Yes	Yes	Yes	11.3-85.8	537000
Styrene	Yes	Yes	No	8.5-68.1	430000
Vinyl Chloride	Yes	Yes	Yes	Not Detected	2600

References:

1. Final Phase I RFI Report dated 3/23/95.

2. Final Phase II RFI Report dated 3/26/96
3. Subsurface Soil Gas Investigation (July'03) Results
4. Indoor Air Testing Results (September 03, 2003)

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[1]
Groundwater	no	no	no	no	no	no	no
Air (indoors)	no	no	no	no	no	no	no
Soil (surface; <2 ft)	no	no	no	No	no	no	no
~~Surface Water~~							
Sediment	no	no	no	no	no	no	no
Soil (subsurface, >2 ft)	no	no	no	Yes	no	no	no
~~Air (outdoors)~~							

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

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

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.

TEI does not have day-care on site, and is surrounded by commercial facilities, with no residences or recreational areas in the vicinity. It is located in the Borough of Queens, which is connected to the New York City Water Supply System. Therefore, contaminated groundwater is not used for any purpose, including as a source for drinking water either onsite or off-site. New York State, however, considers all its groundwater to be a potential source of potable water and that it should be remediated to its Groundwater Quality Protection Standards. The highest concentrations of contaminants are detected in onsite wells and the off-site wells. Offsite, downstream wells directly across the street show low levels of VOC contamination. The nearest surface waters are located about one quarter of a mile northeast from the site. TEI is a enclosed facility, and trespassers cannot access it, although they would not be expected to come in contact with contaminated groundwater or soils even if they gain access to the site. Workers sampling and managing contaminated groundwater corrective measures will do so following an appropriate health and safety plan.

Soil.

Contaminated soils from the outer courtyard area were removed to a depth of 4 feet as part of the outer warehouse construction. The 6" concrete pad in the outer warehouse, and concrete flooring in other areas of the facility, precludes direct or indirect contact with the contaminated soils by human receptors. Construction activities requiring excavation at the facility might expose construction workers to sub-surface contamination. These activities will, however, require the implementation of an appropriate health and safety plan to protect construction personnel and facility workers.

Indoor Air.

Subsurface soil gas investigation conducted has shown elevated levels of sub surface gas vapors below the floor slab of the office and interior warehouse areas. Subsequently, indoor air sampling was conducted to see if subsurface gas is impacting the quality of indoor air, especially in the office area. Most of the contaminants detected in the indoor air samples (Table 2) are handled/processed by TEI as a part of their business activity. Under these circumstances, OSHA requires that all production personnel be covered by a

health and safety plan that complies with OSHA requirements. The facility has a comprehensive health and safety plan which incorporates all personnel, facility operations, field service operations, and also admin/office support personnel.

Even though the facility has been asked to perform quarterly sampling for indoor air to see the full extent of subsurface gas vapor intrusion into the facility buildings under different weather conditions, the New York State Department of Health has determined (NYS DOH letter dated September 18, 2003) that the general public is not exposed to airborne contaminants in the facility and that the facility employees are appropriately monitored and protected. Quarterly indoor air sampling and analysis will study the indoor air quality over the long term.

The available data at this point does not suggest any potential impact of soil gas contaminants on offsite buildings, as the groundwater contamination seems either be concentrated close to the facility or potentially finding preferential pathways along utility and sewer lines. It is unlikely that subsurface soil gas vapors would reach nearby structures under these circumstances, and would instead dissipate quickly in the atmosphere.

Interim Corrective Measures (explained under mitigation Measures below), which are anticipated to be operational by the end of November 2003, is expected to further contain and restrict any possibility of groundwater or soil gas vapor contamination migrating off-site.

Outdoor Air:

Any subsurface soil gas vapors that might find their way from under the floor slabs in the outer warehouse, or other parts of the facility, the edges of the foundations or through the cracks in the walkway, are anticipated to quickly dissipate in the atmosphere. Air monitoring during the investigation supports this conclusion. Also, the interim corrective measure (a vapor extraction and air sparge unit) will contain and minimize the flow of subsurface gas directly to the atmosphere.

Mitigation Measures, Site Rehabilitation and Corrective Action.

(a) The old storage units and damaged concrete pad have been removed and replaced with an approved 6" thick concrete slab with secondary containment, constructed over two HDPE liners and a clay layer. Contaminated soil has been excavated to a depth of 4 feet and removed as a part of construction of new outer warehouse pad. Metal storage sheds have been replaced with concrete vaults containing individual fire suppression systems and secondary containment. The courtyard area, now known as

outer warehouse, is now completely enclosed with walls and a roof.

(b) The Department has approved the construction and operation of an Interim Corrective Measures (ICM) to contain and remove the soil and groundwater contamination, The ICM includes : (1) a groundwater air sparging / vacuum extraction system to remove volatile organic compounds (VOCs) from the groundwater and saturated soils; (2) a vacuum extraction system in place under the new concrete pad for removing VOCs from the unsaturated zone; and (3) treatment of the extracted contaminated air.

The RCRA permit is expected to be renewed this year and will contain conditions for operating and maintaining the new storage vaults and ICM, and for continuing groundwater monitoring to assess both the ICM's performance and the natural attenuation of PCB contamination in the groundwater. Also, the NYS DEC (Division or Air Resources) will be permitting the installation of a permanent ambient air monitoring network around the site. This network will monitor for contaminant emissions during routine, daily waste storage and management operations.

References:

1. Interim Corrective Measures Design dated 11/15/99. 2. Closure Plan and New Storage Design dated 10/12/99.

4. Can the exposures from any of the complete pathways identified in #3 be reasonably expected to be **"significant"**[2] (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

[2] 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.

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 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 RCRAInfo 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 Triumvirate Environmental, Inc. facility, located in Astoria, New York, 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.

Completed by: (signature) _____ Date 09/30/2003

(print) Vimal S. Minocha, P.E.

(title) Environmental Engineer II
(EPA Region or State) NYSDEC

Supervisor: (signature) Date 09/30/2003

(print) Robert Phaneuf , P. E.
(EPA Region or State) NYSDEC

Bureau Director: (signature) Date 09/30/2003

(print) Edwin Dassatti P. E.
(title) Director, Bureau of Hazardous Waste & Radiation Management (EPA Region or State) NYSDEC

Locations where References may be found:

NYSDEC
Division of Solid and Hazardous Materials
625 Broadway, Albany, NY 12233

Contact telephone and e-mail :
Vimal S. Minocha
(518) 457-8594
E Mail: vsminoch@gw.dec.state.ny.us

FINAL NOTE: THE HUMAN EXPOSURES EI IS A QUALITATIVE SCREENING OF EXPOSURES AND THE DETERMINATIONS WITHIN THIS DOCUMENT SHOULD NOT BE USED AS THE SOLE BASIS FOR RESTRICTING THE SCOPE OF MORE DETAILED (E.G., SITE-SPECIFIC) ASSESSMENTS OF RISK.