

DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION

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

Current Human Exposures Under Control

Facility Name: Von Roll Isola USA, Inc. Facility (VRI) (a.k.a. General Electric Riverview Facility)  
Facility Address: One West Campbell Road, Schenectady, New York  
Facility EPA ID #: NYD052987096

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, etc.) 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).

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?

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 enter "TN" (more information needed) status code.

**Current Human Exposures Under Control**  
**Environmental Indicator (EI) RCRIS code (CA725)**  
**Page 2**

**Background - Von Roll Isola USA Facility**

The Riverview facility is a 22-acre manufacturing facility located on West Campbell Road in the Town of Rotterdam, New York. The facility is owned and operated by Von Roll Isola USA Inc. (VRI) and produces solid and liquid insulating materials and tapes for the electrical industry. General Electric Company (GE) originally purchased the property in 1942. From 1942 to 1959, GE used the site as a radar development facility. The site was used for radar development until approximately 1960 when the Insulating Materials group was moved from the nearby GE Main Plant facility to the Riverview site. In March 1988, GE sold the plant to the recently created company, Insulating Materials Incorporated (IMI). IMI produced electrical insulation products similar to that of the previous GE operation. The facility was subsequently sold to VRI in 1995.

The facility consists of several buildings on 22-acres situated on a high plateau approximately 80 feet in elevation above the Mohawk River flood plain. The production area is fenced and gated and is routinely patrolled by facility security personnel. The facility is bounded on the north by a steep embankment and an active Delaware & Hudson (D&H) Railroad rail line, the D&H rail line and Rotterdam Square Mall to the west, Campbell Road to the south, and residential areas to the east. A major industrial facility, the General Electric Main Plant, is located immediately to the north of the site. (See attached Site Location Map)

The site contains numerous solid waste management units (SWMUs) and former hazardous waste storage and disposal areas. A 1992 RCRA Facility Assessment Report identified 32 SWMUs and three areas of concern. (Reference 6). Numerous spills have occurred at the plant and, in conjunction with plant operations, have resulted in several areas of subsurface soil and groundwater contamination. Some areas have been closed under the RCRA corrective action program, others remain to be fully investigated and remediated under the NY State Inactive Hazardous Waste Remediation program. Historical sampling of groundwater, soils, and seep outbreaks at the site have indicated the presence of organic solvents and petroleum products at the site.

The New York State Department of Environmental Conservation (NYSDEC) has determined that the site is an inactive hazardous waste disposal site, as that term is defined at Environmental Conservation Law Section 27-1301.2, and presents a significant threat to the public health or environment. The site has been listed in the *Registry of Inactive Hazardous Waste Disposal Sites in New York State* as site Number 4-47-005, classification 2.

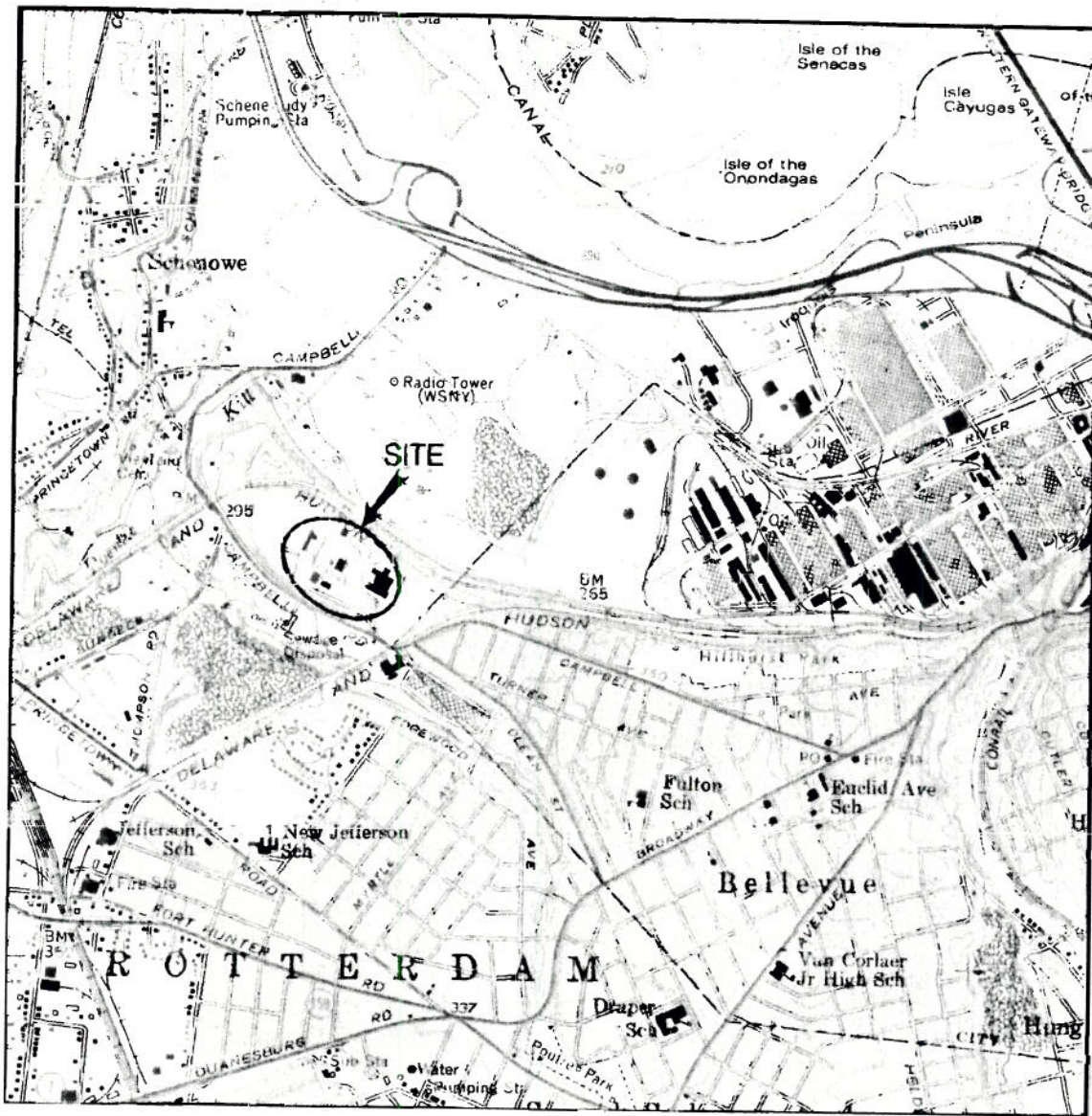
A NYSDEC Part 373 RCRA Permit was issued to the facility on September 28, 1993 and regulated the hazardous waste container storage area. The facility converted to a less than 90-day storage facility in 1994. (Reference 4).

Quantities of liquid and solid raw materials, products, and intermediates are currently stored at the facility. The facility is currently operating as a less-than-90-day storage facility for hazardous waste generated on-site. Wastes are stored in tanks and in 55-gallon drums in Building RV-42 and routinely disposed off-site. (Reference 1).

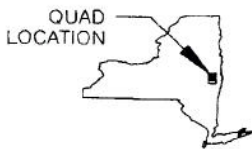
There is currently no disposal of hazardous waste or mixed waste at the facility. Furthermore, there are no private production wells for potable or service water on-site. No known wells are used for domestic consumption in the immediate vicinity of the site, since area residences are all served by a municipal water system.

Several investigations have been completed at the facility, including a 1993 Site Investigation and a 1998 Summary Report of the Riverview Facility Schenectady, New York. Early investigations were conducted under the terms of a 1992 GE Administrative Order on Consent with the NYSDEC. General Electric and the NYSDEC entered into a new Order on Consent for an Remedial Investigation and Feasibility Study (RI/FS) on June 6, 2001. The new order includes elements regarding the inactive hazardous waste program and the RCRA Corrective Action program. A first phase of the RI/FS has been completed and additional investigations are planned for the fall of 2005 and spring of 2006. (Reference 1 and 7).

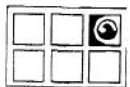




SOURCE: U.S.G.S. TOPOGRAPHIC QUADRANGLE  
 SCHEENECTADY QUADRANGLE  
 7.5 MINUTE SERIES  
 DATE: 1954/REVISED 1980



SCALE 1:24,000



**GROUNDWATER  
 TECHNOLOGY**

1245 KINGS ROAD  
 SCHEENECTADY, NY 12303  
 (518) 370-5631

DESIGNED:

TMM

DETAILED:

MET

CHECKED:

TMM

## SITE LOCATION MAP

CLIENT:

GENERAL ELECTRIC

DRAWING DATE:

9/16/92

LOCATION:

FORMER G.E. RIVERVIEW PLANT  
 SCHEENECTADY, NEW YORK

FIGURE:

**1**

**Current Human Exposures Under Control**  
**Environmental Indicator (EI) RCRIS code (CA725)**  
**Page 3**

2. Are groundwater, soil, surface water, sediments, or air **media** known or reasonably suspected to be “contaminated”<sup>1</sup> 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)?

	<u>Yes</u>	<u>No</u>	<u>?</u>	<u>Rationale / Key Contaminants</u>
Groundwater	<u>X</u>	<u>—</u>	<u>—</u>	<u>VOCs, SVOCs, petroleum compounds</u>
Air (indoors) <sup>2</sup>	<u>—</u>	<u>X</u>	<u>—</u>	<u>Trichloroethene (Potential)</u>
Surface Soil (e.g., <2 ft)	<u>—</u>	<u>X</u>	<u>—</u>	<u>—</u>
Surface Water	<u>—</u>	<u>X</u>	<u>—</u>	<u>No surface water bodies, seeps not found</u>
Sediment	<u>—</u>	<u>X</u>	<u>—</u>	<u>No surface water bodies/associated sediment</u>
Subsurf. Soil (e.g., >2 ft)	<u>X</u>	<u>—</u>	<u>—</u>	<u>VOCs, SVOCs, petroleum compounds</u>
Air (outdoors)	<u>—</u>	<u>X</u>	<u>—</u>	<u>—</u>

\_\_\_\_\_ 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):**

Various environmental investigations have been performed at different locations at the VRI facility, pursuant to the requirements of Consent Orders signed with the NYSDEC under the inactive hazardous waste site program and the RCRA Corrective Action program. The investigations were performed at areas where historical contamination is known or suspected to have occurred, and have confirmed that contamination exists at the facility above applicable regulatory standards and guidance values. A number of Solid Waste Management Areas (“SWMUs”) either known or suspected to have received wastes during the early years of facility operations were identified and targeted for investigation. Information on wastes suspected at the site SWMUs, and approximate periods of operation, can be found in References 1 and 2. The most recent analytical data comes from the first phase Remedial Investigation (Reference 1) performed in 2001 and 2002. The RI targeted five SWMUs (6, 8, 18, 19, and 25) and areas of concern around Building RV-14. That

<sup>1</sup> “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).

<sup>2</sup> 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.



**Current Human Exposures Under Control**  
**Environmental Indicator (EI) RCRIS code (CA725)**  
**Page 4**

study and the findings of previous investigations are summarized below. Table 1 summarizes those results that exceed the soil cleanup criteria. Table 2 summarizes those groundwater results that exceed groundwater standards.

Soil Investigation

**SWMU #6 - RV-14 Varnish Room Leach Field/Dry Well (U6):** This area is outside the varnish room loading area beneath the former Container Storage Area #2 on the east side of Building RV-14. Between 1960 and 1980, flammable varnishes and solvents were directed into a dry well and leach field.

Four soil samples were collected from borings U6-SB1 and U6-SB2 in the area of SWMU #6, from depths of 4 to 8 feet below ground surface (bgs) and 16 to 20 feet bgs. No Volatile Organic Compound (VOC), Semi-Volatile Organic Compound (SVOC), Polychlorinated Biphenyls (PCB), phenolics, or Total Petroleum Hydrocarbon (TPH) compounds were detected above their respective NYSDEC Technical and Administrative Guidance Memorandum (TAGM) criteria in any of the soil samples collected from U6-SB1 or U6-SB2.

VOC compounds including ethylbenzene, toluene, xylene, and TPH were detected at concentrations ranging from 2.3 to 100 g/kg in both shallow and deep soil samples collected from U6-SB1. Several Polycyclic Aromatic Hydrocarbons (PAH) compounds (i.e., benzo(a)anthracene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, fluoranthene, indeno(1,2,3-cd) pyrene, phenanthrene, and pyrene) were also detected in the soil sample collected from U6-SB1 (4 to 8 feet bgs), at concentrations ranging from 41 to 160 g/kg, all well below NYSDEC TAGM criteria. Low concentrations of bis(2-ethylhexyl)phthalate (95 to 140 g/kg) were detected in both soil samples from U6-SB1, and di-n-butylphthalate (150 g/kg) was also detected in the soil sample from 4 to 8 feet bgs. PID measurements at the time of sample collection revealed only one elevated reading of 379 ppm from soil 4 to 8 feet bgs. (Reference 1).

**SWMU #8 - RV-14 Fuel Oil UST (U8):** A 10,000-gallon UST for #6 and #2 fuel oil was located here from 1960 to 1987. A tank removal operation was completed in 1987 and contaminated soil was removed.

Two soil samples were collected from each of four soil boring locations. Three PAH compounds were detected at concentrations exceeding the NYSDEC TAGM criteria in soil collected from one U8 location (U8-SB1). Benzo(a)anthracene (320 g/kg), benzo(a)pyrene (270 g/kg), and dibenzo(a,h)anthracene (50 g/kg) were detected at concentrations above the respective NYSDEC TAGM criteria in soil sampled from U8-SB1 at a depth of 58 to 60 feet bgs. The NYSDEC TAGM criteria for these compounds are 224, 61, and 14 g/kg, respectively, or alternatively the Method Detection Limit (MDL) for each respective compound. The concentrations of each compound were reported below the Contract Required Quantitation Limit (CRQL), but detected above both the MDL and NYSDEC TAGM criteria listed. Several other PAH compounds, 2-methylnaphthalene, bis(2-ethylhexyl)phthalate, carbazole, dibenzofuran, tetrachloroethene, toluene, and TPH were also detected, but at concentrations well below associated criteria.

Bis(2-ethylhexyl)phthalate was detected in soil samples collected from all U8 soil borings at concentrations ranging from 66 to 1,000 g/kg. Toluene and TPH were also detected at concentrations ranging from 1.2 to 48 g/kg in soil samples collected from U8 soil borings, with the exception of U8-SB4 (50 to 52 feet bgs) in which it was not detected. Acetone was detected at 13 g/kg in soil collected from U8-SB4 (50 to 52 feet bgs). (Reference 1).

**SWMU #19 - RV-37 Former RCRA Storage Tank (U19):** This was a 10,000-gallon holding tank for ignitable wastes. A partial closure of the tank, including removal of the tank and associated soil, was performed in 1988.

Soil samples collected from U19 soil borings for chemical analyses ranged from 2 to 4 feet bgs to 18 to 20 feet bgs. All analyte concentrations were reported below the NYSDEC TAGM criteria. Toluene, bis(2-ethylhexyl)phthalate, fluoranthene, and pyrene were detected at concentrations ranging from 1.2 g/kg to 49 g/kg which are well below

**Current Human Exposures Under Control**  
**Environmental Indicator (EI) RCRIS code (CA725)**  
**Page 5**

associated criteria. (Reference 1).

**SWMU #18 - Raw Material Tank Farm (U18):** This area contained eight above-ground storage tanks within a bermed area.

All detected analyte concentrations in soil samples collected from U18 soil borings in the RV-33 area were below the associated NYSDEC TAGM criteria. Bis(2-ethylhexyl) phthalate was detected in all of the soil samples collected from the SWMU #18 area at concentrations ranging from 55 g/kg to 880 g/kg, which are well below the NYSDEC TAGM criteria of 50,000 g/kg. Toluene (1.7 g/kg to 34 g/kg) was also detected in some of the U18 soil samples, but at concentrations well below the respective criteria of 1,500 g/kg. In addition, TPH (5.6 g/kg to 32 g/kg) was detected in some of the U18 soil samples, however, no NYSDEC TAGM criterion exists for TPH. 2,4-Dimethylphenol was detected at 240 g/kg and 5,600 g/kg in U18-SB4 soil samples collected from depths of 4 to 6 feet bgs and 22 to 24 feet bgs, respectively. No associated NYSDEC TAGM criterion exists for 2,4-dimethylphenol.

Visual inspection of the tank farm prior to closure reportedly revealed no visual or olfactory evidence of contamination associated with the tank farm or piping. Potential subsurface contamination in the RV-33 north tank farm area was investigated through excavation of ten test pits and collection of soil samples for VOC and SVOC analyses. Analytical results indicated the principle constituents present to be 2,4,6-trimethylphenol, xylene, and trimethylbenzene (OBG, 1998). (Reference 2).

**SWMU #25 - Former RCRA Drum Storage Area (U25):** This former drum storage area is a 75 by 65 foot paved area used to store 55-gallon drums of hazardous waste generated at the site from 1979 to 1989.

Benzo(a)pyrene (200 g/kg) and dibenzo(a,h)anthracene (44 g/kg) were detected at concentrations exceeding the NYSDEC TAGM criteria in the soil sample collected at boring U25-SB1 from a depth of 0 to 4 feet bgs. In addition, phenol was detected at 86 g/kg in the soil sample collected at U25-SB2 from a depth of 0 to 4 feet bgs. All compounds were detected at concentrations below the associated CRQL, but above the laboratory-established MDL. The NYSDEC TAGM criteria for benzo(a)pyrene, dibenzo(a,h)anthracene, and phenol are 61 g/kg, 14 g/kg, and 30 g/kg, respectively, or the MDL.

Other PAH compounds were detected in both soil samples at concentrations ranging from 39 to 470 g/kg, and below the respective TAGM criteria. Toluene (2.6 g/kg to 3.1 g/kg) and TPH (4.2 g/kg to 6.7 g/kg) were detected in several of the soil samples collected from the SWMU #25 area. The NYSDEC TAGM criterion for toluene is 1,500 g/kg, however, no TAGM criterion for TPH exists. Bis(2-ethylhexyl)phthalate was detected below the TAGM criterion of 50,000 g/kg at concentrations of 55 and 40 in soils sampled from U25-SB1 (16 to 20 feet bgs) and U25-SB2 (16 to 20 feet bgs). (Reference 1).



**Current Human Exposures Under Control  
Environmental Indicator (EI) RCRIS code (CA725)  
Page 6**

**Table 1  
Subsurface Soil Contamination Above Cleanup Goals**

<b>Contaminant</b>	<b>Location</b>	<b>Maximum Concentration</b>	<b>Cleanup Criteria / TAGM 4046 Levels</b>
dibenzo(a,h) anthracene	SWMU #8/25 - subsurface soil	50 ug/kg	14 ug/kg
benzo(a)pyrene	SWMU #8/25 - subsurface soil	270 ug/kg	61 ug/kg
phenol	SWMU #25 - subsurface soil	86 ug/kg	30 ug/kg
xylene	VRI-1 - subsurface soil	14 mg/kg	1.2 mg/kg
Total Petroleum Hydrocarbons (TPH)	SWMU #8 - subsurface soil	290 mg/kg	
benzo(a)anthracene	SWMU #8 - subsurface soil	320 ug/kg	224 ug/kg

Groundwater Investigation

Groundwater investigations have been performed at the VRI facility on several occasions, most recently in 2001 and 2002 during the first phase Remedial Investigation (RI) conducted by Conestoga-Rovers for General Electric Company. A total of twenty-seven (27) monitoring wells currently exist and have been periodically sampled. Results in exceedance of Title 6 NYCRR Part 703.5 quality standards for groundwater and drinking water are summarized in Table 2 below. Complete information on where contamination was detected, and at what concentrations, can be found in References 1, 2, and 3.

Unconsolidated deposits underlying the facility consist of glaciolacustrine and deltaic sands and silts. A clay confining unit approximately 11 feet thick was noted in deep borings at 95 feet below ground surface. Below this unit, a deep water bearing zone of silty sand and clay was noted to a depth of at least 122 feet. Regional information indicates the presence of a dense glacial till unit overlying black and gray shales and sandstones.

The VRI facility lies in a recharge zone for the Great Flats/Schenectady Aquifer located to the north of the site within the Mohawk River basin. Municipal well fields for the City of Schenectady and Town of Rotterdam, New York are located in the eastern portion of the aquifer approximately one mile northwest of the site. A regional groundwater divide trending north to south has been confirmed in studies at the adjacent General Electric Main Plant facility to the north. Groundwater flow east of the divide is northeast to the Mohawk River. Groundwater flow west of the divide is to the northwest, toward the municipal well fields. Flow from the GE Main Plant is east of the divide and thus, does not flow to the municipal wells. The groundwater divide has not been confirmed as extending onto the VRI facility. However, preliminary information from the first phase RI indicates the flow is generally to the north and northeast and would be on the eastern side of the groundwater divide once it reaches the flood plain to the north. (References 1, 3, and 5).

Groundwater at the facility is observed in unconsolidated deposits under unconfined/water table conditions. Depth to groundwater is approximately 60 to 70 feet below ground surface across the site. Groundwater flow is to the

**Current Human Exposures Under Control**  
**Environmental Indicator (EI) RCRIS code (CA725)**  
**Page 7**

north/northeast toward the steep hillside on the north boundary of the site. (Reference 1).

Data collected to date indicates groundwater contamination is primarily associated with SWMU 18 - Former RV-33 Tank Farm area and some minor contamination in the area of RV-14. Data to date does not indicate a significant off-site migration component. Additional characterization of groundwater is anticipated to take place during the fall of 2005 and spring of 2006.

**Table 2**  
**Groundwater Results Above Standards**

Contaminant	Total Wells Sampled/Total Wells Standards Exceeded	Maximum Concentration (ppb)/Location	Part 703.5 Groundwater Standard (ppb)
benzene	27/5	1,200 / GT-1	1
ethylbenzene	27/4	160,000 / GT-1	5
toluene	27/3	350 / GT-1	5
xylene	27/5	6,300 / GT-9	5
trichloroethylene	27/3	26 / GT-16	5
1,2,4-trimethylbenzene	27/3	2,590 / GT-13	5
1,3,5-trimethylbenzene	27/2	1,690 / GT-9	5
isopropyl benzene	27/3	146 / GT-9	5
n-propylbenzene	27/3	940 / VRI-1	5
phenol	27/3	32 / GT-14	1
2,4-dimethylphenol	27/2	3.1 / GT-9	1
naphthalene	27/3	130 / VRI-8	10
1,2,3-trichloropropane	27/1	2,880 / GT-13	5

**Surface Water and Sediment:** There are no surface water bodies or streams located on the VRI property. A seep was reported in previous investigations emanating from the steep hillside off the site property to the north. Low concentrations of phenol were noted in a sample taken from the seep in 1993. This seep has not been subsequently observed, located, or sampled. Sampling of the Poentic Kill, a stream located off-site to the north of the site, was conducted during the 1992 field investigation (Reference 3). No contaminants attributable to the VRI facility were found. Sampling of surface water and sediment in surface water bodies on the adjacent GE Main Plant Facility have not revealed a significant upstream source of contamination attributable to the VRI facility (Reference 5). Surface flow and storm waters at the site are controlled and managed through storm sewers and basins (References 1 and 3).

**Indoor Air:** An evaluation of the potential for indoor air impacts in the site manufacturing buildings is incomplete. Building RV-14, the main manufacturing structure, has been identified as having the highest potential for indoor impacts



**Current Human Exposures Under Control**  
**Environmental Indicator (EI) RCRIS code (CA725)**  
**Page 8**

due to the presence of petroleum compounds in groundwater and soil in SWMU #6 and the presence of trichloroethene in groundwater in wells near the building. Investigations into the air quality in the building, including a full product inventory, sub-slab gas samples, and indoor air samples, are planned for the heating season in 2005-2006. Additionally, further investigation into the extent of potential trichloroethene contamination in groundwater under the building is planned for fall 2005/spring 2006.

Outdoor Air: No formal assessment of impacts to outdoor air have been conducted at the facility. Due to the lack of surface soil contamination, it is unlikely that outdoor air is impacted at the site.

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)

<b>“Contaminated”</b>	Residents	Workers	Day-Care	Construction	Trespassers	Recreation	Food <sup>3</sup>
Groundwater	<u>no</u>	<u>no</u>	<u>no</u>	<u>no</u>			<u>no</u>
Air (indoors)	<u>no</u>	<u>no</u>	<u>no</u>				
Soil (surface, <2 ft)	_____	_____	_____	_____	_____	_____	_____
Surface Water	_____	_____	_____	_____	_____	_____	_____
Sediment	_____	_____	_____	_____	_____	_____	_____
Soil (subsurface, >2 ft)	_____	_____	_____	<u>no</u>	_____	_____	<u>no</u>
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.

- X 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).

---

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

**Current Human Exposures Under Control**  
**Environmental Indicator (EI) RCRIS code (CA725)**  
**Page 9**

- \_\_\_\_\_ 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):**

There are no full-time residents on-site, nor are there day-care or recreational facilities. There is no crop, meat or dairy production in the vicinity of the facility. Therefore, these routes of exposure are not applicable to the VRI Facility. Surface waters and associated sediments are not present at the site and surface soils and outdoor air have not displayed contamination above standards or guidance criteria.

Groundwater: There is no on-site groundwater usage, and there are no identified targets or receptors located downgradient of the facility. Intensive investigations at an adjacent and immediately downgradient industrial facility do not indicate upgradient or off-site sources of contamination. A municipal water system provides potable water and production to the site. Therefore, workers are not affected. There is no crop, meat or dairy production using groundwater in the vicinity of the facility. Groundwater contamination does not appear to be migrating off-site and thus does not affect the quality of the adjacent Mohawk River, hence preventing human exposure to contamination in site groundwater via consumption of fish taken from the river.

Indoor Air: An evaluation of the potential for indoor air impacts in the site manufacturing buildings is incomplete. Building RV-14, the main manufacturing structure, has been identified as having the highest potential for indoor impacts due to the presence of petroleum compounds in groundwater and soil in SWMU #6 and the presence of trichloroethene in groundwater in wells near the building. Investigations into the air quality in the building, including a full product inventory, sub-slab gas samples, and indoor air samples, are planned for the heating season in 2005-2006. Additionally, further investigation into the extent of potential trichloroethene contamination in groundwater under the building is planned for fall 2005/spring 2006.

EPA's Office of Solid Waste and Emergency Response (OSWER) issued "Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils" in November 2002. Among the exposure scenarios discussed in this draft guidance, EPA addressed vapor intrusion into non-residential buildings, including those in occupational settings that may be regulated by the Occupational Health and Safety Administration (OSHA). Specifically, in the Introduction of the Draft Guidance, under Section I.D. ("What Is The Scope of The Guidance?"), OSWER states that, "OSHA and EPA have generally agreed that OSHA will take the lead in addressing occupational exposures.", and that "...EPA does not expect this guidance to be used for settings that are primarily occupational." OSWER reaffirmed this position in a fact sheet titled, "Vapor Intrusion and RCRA Corrective Action Environmental Indicators (EI)", issued June 2003.

However, at this time, OSWER is reevaluating the guidance for the vapor intrusion to indoor air pathway in occupational settings. The matter is currently under internal review. OSWER plans to issue updated recommendations on when and how the Draft Guidance should be used.

For purposes of this Human Exposures Under Control EI determination, EPA Region 2 is deferring the determination of whether an unacceptable exposure to human health exists from the vapor intrusion to indoor air pathway in the on-site occupational setting at the Von Roll Isola USA Facility. Once new draft guidance is issued by OSWER, EPA Region 2 expects to recommend that the vapor intrusion to indoor air pathway be reevaluated at the Von Roll Isola USA Facility to determine if this pathway poses an unacceptable risk to human health in the occupational setting. This deferral applies only to the vapor intrusion to indoor air pathway in the on-site occupational setting exposure scenario.



**Current Human Exposures Under Control  
Environmental Indicator (EI) RCRIS code (CA725)**

Page 10

Soil: Soil contaminants are largely associated with subsurface soils, at depths greater than 2 feet, and in many case up to 60 feet below the ground surface. There are no open or active burial areas. Protection from exposure to soils is provided by established vegetation or asphalt/concrete structures. The site is not open to the public. Trespassing is controlled through site access security measures in the active portion of the facility (perimeter security fencing, guard stations), and a combination of routine surveillance/patrolling measures and topographic/natural barriers in the remainder of the site. Employees and contractors are further protected from exposure to soil contaminants through the use of operational controls that require Environment, Health and Safety personnel review and approval, prior to commencing any soil disturbance activities.

4. Can the **exposures** from any of the complete pathways identified in #3 be reasonably expected to be **“significant”**<sup>4</sup> (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)?

\_\_\_\_\_ 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):** \_\_\_\_\_

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”)-

---

<sup>4</sup> 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.

**Current Human Exposures Under Control**  
**Environmental Indicator (EI) RCRIS code (CA725)**  
**Page 11**

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):** \_\_\_\_\_

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):

**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 **Von Roll Isola USA Facility (aka General Electric Riverview Facility)**, EPA ID # **NYD052987096**, located at **1 West Campbell Road, Schenectady, New York** under current and reasonably expected conditions. This determination represents the best understanding of conditions at the afore-mentioned facility by the Agency/State, given the most current data. This determination will be re-evaluated when the Agency/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.

EPA Project Manager: Michael Infurna Date: 9/29/05  
Michael Infurna  
New York Section  
USEPA Region 2

Supervisor: James Reidy Date: 9/29/05  
James Reidy, Chief  
RCRA Program Branch - NY Section  
USEPA Region 2

Supervisor: Adolph Everett Date: 9/29/05  
Adolph Everett, Chief  
RCRA Program Branch  
USEPA Region 2

Director: Walter Mudgan Date: 9/30/05  
Walter Mudgan, Director  
Division of Environmental Planning and Protection  
USEPA Region 2



**Current Human Exposures Under Control  
Environmental Indicator (EI) RCRIS code (CA725)**

Page 12

References:

1. *Remedial Investigation Report*. Von Roll Isola USA Inc. Facility. Conestoga-Rovers Associates, August 2002.
2. *Summary Report Riverview Facility Schenectady, New York*. Von Roll Isola USA, Inc. O'Brien & Gere Engineers, July 1998.
3. *Field Investigation Report, Former General Electric Riverview Plant Schenectady, New York*. General Electric Company - Silicones Division. Groundwater Technology, Inc. January 1993.
4. *NYSDEC 6 NYCRR Part 373 Hazardous Waste Management Facility Permit for the Von Roll Isola USA Facility, Rotterdam, New York*. New York State Department of Environmental Conservation, 1993. EPA I.D. Number: NYD052987096, NYSDEC Permit.
5. *Revised Remedial Investigation Report, GE main Plant, Schenectady, New York*. GE Energy. URS Corporation. May 2004.
6. *RCRA Facility Assessment Report for the Insulating Materials, Inc. Riverview Plant*. Environmental Protection Agency. A.T. Kearney, August 1992.
7. New York State Department of Environmental Conservation, 2001. Administrative Order on Consent #A4-0363-9802. February 1998.

Locations where References and other documentation may be found:

New York State Department of Environmental Conservation  
Division of Environmental Remediation  
625 Broadway, 12<sup>th</sup> Floor  
Albany, NY 12233-7013

Contact telephone number and e-mail:

**NYSDEC**

Martin D. Brand  
(518) 402-9813  
Mdbbrand@gw.dec.state.ny.us

**USEPA**

Michael Infurna  
(212) 637-4107  
michael.infurna@epamail.epa.gov

**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.**