



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 1

1 CONGRESS STREET, SUITE 1100
BOSTON, MASSACHUSETTS 02114-2023

Sept 24, 2001

Mr. Leo M. Brausch
Consultant\Project Engineer
Viacom\CBS Corp.
373 Westinghouse Building
11 Stanwix St.
Pittsburg, PA 15222-1384

Subject: Viacom (Formerly CBS Corporation), Bridgeport, Connecticut. Technical Review of Environmental Indicators RCRIS Code CA750

Dear Mr. Brausch :

We have conducted a technical review of Viacom's (Formerly CBS Corporation) Corrective Action Environmental Indicator (EI) RCRIS Code CA750 Report, Migration of Contaminated Groundwater Under Control (CA750), for the Former Bryant Electric Facility, 1421 State Street, Bridgeport, Connecticut. Our review of this document considered the August 2001, Draft Remedial Action Plan (RAP) submitted in support of the CA750, as well as previous site assessment and hydrogeologic documents prepared in support of RCRA corrective action at this property. Based on our analysis, which is included below, the groundwater contaminant plume appears stabilized and a "YE" Status Code is appropriate for the Former Bryant Electric facility at this time.

The CA750 was reviewed to determine whether migration of contaminated groundwater (i.e., groundwater with contaminant concentrations in excess of appropriate risk-based levels) is currently under control, and whether monitoring will be conducted to confirm that contaminated groundwater remains within the existing area of contamination. For ease of review, the information in this letter is presented in the order of the information provided in Viacom's September 2001 CA750.

In response to Question No. 2, Viacom indicates that groundwater is contaminated above appropriately protective risk-based levels. Specifically, Viacom identified groundwater contamination above the Connecticut Department of Environmental Protection (CTDEP) Surface Water Protection Criteria (SWPC), and the CTDEP Industrial/Commercial Volatilization Criteria (I/C VC). Note that a comparison to drinking water standards was not conducted as the groundwater beneath this area of Bridgeport, CT is classified by the CTDEP as GB (not suitable for drinking water). The constituents identified as exceeding the I/C VC during recent or past sampling events include: trichloroethene (TCE), 1,1-dichloroethene (1,1-DCE), and vinyl

chloride (VC). The constituents identified as exceeding the SWPC include TCE and tetrachloroethene (PCE). In addition, Viacom indicates that cyanide and metals, including arsenic, copper, lead, and zinc, have periodically been detected slightly above the SWPC during past sampling events. Viacom also provides an appropriate listing of measured concentrations of these and other relevant contaminants in tables included in the RAP provided with the CA750. These tables include the identification of maximum contaminant levels detected in groundwater at the site.

In response to Question No. 3, Viacom indicates that the migration of contaminated groundwater has stabilized. In support of this contention, Viacom indicates that the plume is well monitored and that recent monitoring results indicate that contaminant concentrations in groundwater have dropped significantly in response remedial measures. These remedial measures include an air sparging and soil vapor extraction system (SVE) in the source area and a groundwater recovery system downgradient of the source area. As indicated in response to Question No. 4, the downgradient portion of the contaminant plume eventually mingles with groundwater contamination from other sources. This larger contaminant plume has been shown to discharge into Cedar Creek approximately 3,600 feet south of the Former Bryant Electric Facility. Estimates of groundwater travel time from the Former Bryant Electric site to Cedar Creek indicate that the principal contaminant (TCE) emanating from the site has reached Cedar Creek as part of this larger contaminant plume. Based on these factors, the conclusion that the plume has stabilized appears appropriate.

In response to Question No. 4, Viacom correctly responds that contaminated groundwater discharges into a surface water body. As discussed above, contaminated groundwater from the Viacom site discharges to Cedar Creek.

In response to Question No. 5, Viacom indicates that the discharge of contaminated groundwater to surface water is insignificant. In support of their position, Viacom relies on groundwater quality data obtained during a direct push investigation conducted in the area of the larger co-mingled contaminant plume located in close proximity to Cedar Creek. These data indicate that the levels of contaminants potentially emanating from the Former Bryant Electric site (primarily TCE) are less than ten times the relevant SWPC in the portion of the plume adjacent to Cedar Creek. Viacom also indicates that, based on the probable time of contaminant releases and travel times to Cedar Creek, the plume is a mature plume. Viacom further explains that the decreasing concentration of contaminants in the source area of the plume resulting from the ongoing remedial measures should limit the potential for any future increases in contaminants levels emanating from the site in downgradient groundwater. Review of the groundwater quality data also indicates that concentrations of TCE, and its degradation products throughout the downgradient plume, are below ten times their respective SWPC. Consequently, significant increases in groundwater contaminants discharging into Cedar Creek as a result of the contaminant releases at the Former Bryant Electric site are unlikely. Based on these considerations, the conclusion that the discharge of contaminated groundwater from the Viacom site to surface water is insignificant appears appropriate.

Based on the response to Question 5, a response to Question 6 was not required. In response to Question No. 7, Viacom indicates that the ongoing quarterly groundwater monitoring program will be continued until compliance with the CTDEP Remediation Standards has been demonstrated. The monitoring well network used in this program is identified in the RAP submitted in support of the CA750. The planned monitoring program appears sufficient to verify that the plume is not expanding and that trends of increasing concentration do not develop.

Finally, Viacom has responded "YE" to Question No. 8, indicating that the migration of groundwater is under control. Our review of the CA750 and relevant characterization data indicate that the groundwater contaminant plume appears stabilized, and that "YE" is appropriate for the Former Bryant Electric Site. Note, however, that the status code may need to be reevaluated if conditions, including the use of the site, change.

If you have any questions, please contact me at (617) 918-1360.

Sincerely,



Robert A. O'Meara
RCRA Facility Manager

DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION

Interim Final 2/5/99

**RCRA Corrective Action
Environmental Indicator (EI) RCRIS code (CA750)
Migration of Contaminated Groundwater Under Control**

Facility Name: Former Bryant Electric Site
Facility Address: 1421 State Street, Bridgeport, Connecticut
Facility EPA ID #: CTD 001183078

1. Has all available relevant/significant information on known and reasonably suspected releases to the groundwater media, 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 #8 and enter "IN" (more information needed) 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, 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 "Migration of Contaminated Groundwater Under Control" EI

A positive "Migration of Contaminated Groundwater Under Control" EI determination ("YE" status code) indicates that the migration of "contaminated" groundwater has stabilized, and that monitoring will be conducted to confirm that contaminated groundwater remains within the original "area of contaminated groundwater" (for all groundwater "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 "Migration of Contaminated Groundwater Under Control" EI pertains ONLY to the physical migration (i.e., further spread) of contaminated ground water and contaminants within groundwater (e.g., non-aqueous phase liquids or NAPLs). Achieving this EI does not substitute for achieving other stabilization or final remedy requirements and expectations associated with sources of contamination and the need to restore, wherever practicable, contaminated groundwater to be suitable for its designated current and future uses.

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).

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2. Is **groundwater** known or reasonably suspected to be “**contaminated**”¹ above appropriately protective “levels” (i.e., applicable promulgated standards, as well as other appropriate standards, guidelines, guidance, or criteria) from releases subject to RCRA Corrective Action, anywhere at, or from, the facility?

P

- If yes - continue after identifying key contaminants, citing appropriate “levels,” and referencing supporting documentation.
- ___ If no - skip to #8 and enter “YE” status code, after citing appropriate “levels,” and referencing supporting documentation to demonstrate that groundwater is not “contaminated.”
- ___ If unknown - skip to #8 and enter “IN” status code.

Rationale and Reference(s):

Groundwater sampling has been conducted at the site since 1994. Groundwater sampling is currently being conducted on a quarterly basis. The results are submitted in a quarterly report to the Connecticut Department of Environmental Protection (CTDEP) and the U.S. Environmental Protection Agency (EPA).

Appropriate “levels” used in this evaluation include CTDEP Remediation Standard Regulations (RSRs) Surface Water Protection Criteria (SWPC) throughout the water column; Residential Volatilization Criteria (RVC) for shallow groundwater beyond the downgradient property boundaries; and Industrial/Commercial Volatilization Criteria (I/C VC) for on-site shallow groundwater upgradient of the downgradient property boundaries. During the most recent round of groundwater sampling (April 2001) trichloroethylene (TCE) was detected above the SWPC in three wells and above the I/C VC in two wells. During past sampling rounds, volatile organic compounds (VOCs) including 1,1-dichloroethylene, vinyl chloride, and tetrachloroethylene (PCE) have also been detected above CTDEP RSRs. Metals analysis was not conducted during the April 2001 sampling round. Cyanide and metals including arsenic, copper, lead, and zinc have periodically been detected slightly above the SWPC in past sampling events.

Groundwater sampling results are summarized in Table 2 of the ~~attached~~ Draft August 2001 Remedial Action Plan (RAP). Monitoring well locations are shown on Figure 9.

MRH
9/26/01

Footnotes:

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 appropriate “levels” (appropriate for the protection of the groundwater resource and its beneficial uses).

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3. Has the **migration** of contaminated groundwater **stabilized** (such that contaminated groundwater is expected to remain within “existing area of contaminated groundwater”² as defined by the monitoring locations designated at the time of this determination)?

P If yes - continue, after presenting or referencing the physical evidence (e.g., groundwater sampling/measurement/migration barrier data) and rationale why contaminated groundwater is expected to remain within the (horizontal or vertical) dimensions of the “existing area of groundwater contamination”²).

___ If no (contaminated groundwater is observed or expected to migrate beyond the designated locations defining the “existing area of groundwater contamination”²) - skip to #8 and enter “NO” status code, after providing an explanation.

___ If unknown - skip to #8 and enter “IN” status code.

Rationale and Reference(s):

Groundwater conditions have been characterized with an extensive network of permanent groundwater monitoring wells, and on-site and off site cone penetrometer (CPT) testing. The groundwater monitoring network includes 24 shallow wells, 5 mid-level wells, and 10 deep wells. Concentrations of the primary groundwater constituent (TCE) have significantly decreased over time in the former source area, beneath former Building 29. The highest TCE concentrations have been identified in the mid level aquifer (20 to 40 feet bgs). The vertical migration of TCE below the mid level aquifer is limited due to the presence of a finer underlying formation that acts as a low-permeability layer.

A groundwater recovery system was installed in February 2000 on the southwestern (downgradient) portion of the site. Currently two recovery wells (MW-18M and MW-21M) are providing hydraulic control for impacted groundwater on this portion of the site. The concentrations of TCE in these wells have also generally decreased since the startup of the system. The installation of a third recovery well is planned to enhance the groundwater capture on the southwestern portion of the site. A soil vapor extraction/air sparge (SVE/AS) system installed in 1998 continues to remediate soil and groundwater in the former source area.

² “existing area of contaminated groundwater” is an area (with horizontal and vertical dimensions) that has been verifiably demonstrated to contain all relevant groundwater contamination for this determination, and is defined by designated (monitoring) locations proximate to the outer perimeter of “contamination” that can and will be sampled/tested in the future to physically verify that all “contaminated” groundwater remains within this area, and that the further migration of “contaminated” groundwater is not occurring. Reasonable allowances in the proximity of the monitoring locations are permissible to incorporate formal remedy decisions (i.e., including public participation) allowing a limited area for natural attenuation.

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4. Does “contaminated” groundwater discharge into surface water bodies?

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If yes - continue after identifying potentially affected surface water bodies.

___ If no - skip to #7 (and enter a “YE” status code in #8, if #7 = yes) after providing an explanation and/or referencing documentation supporting that groundwater “contamination” does not enter surface water bodies.

___ If unknown - skip to #8 and enter “IN” status code.

Rationale and Reference(s)

Cedar Creek is located approximately 3,600 feet to the south of the site. Groundwater beneath the site flows to the south, southwest. Beyond the limits of the site to the south, the groundwater flow direction turns to the southeast, toward Cedar Creek. Based on a conservative evaluation of the estimate time of initial TCE release at the site and time of groundwater transport, site groundwater containing TCE has likely traveled the entire path from the site to Cedar Creek. TCE concentrations immediately upgradient of the creek are below SWPC.

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5. Is the discharge of “contaminated” groundwater into surface water likely to be “insignificant” (i.e., the maximum concentration³ of each contaminant discharging into surface water is less than 10 times their appropriate groundwater “level,” and there are no other conditions (e.g., the nature, and number, of discharging contaminants, or environmental setting), which significantly increase the potential for unacceptable impacts to surface water, sediments, or eco-systems at these concentrations)?

P

If yes - skip to #7 (and enter “YE” status code in #8 if #7 = yes), after documenting: 1) the maximum known or reasonably suspected concentration³ of key contaminants discharged above their groundwater “level,” the value of the appropriate “level(s),” and if there is evidence that the concentrations are increasing; and 2) provide a statement of professional judgement/explanation (or reference documentation) supporting that the discharge of groundwater contaminants into the surface water is not anticipated to have unacceptable impacts to the receiving surface water, sediments, or eco-system.

— If no - (the discharge of “contaminated” groundwater into surface water is potentially significant) - continue after documenting: 1) the maximum known or reasonably suspected concentration³ of each contaminant discharged above its groundwater “level,” the value of the appropriate “level(s),” and if there is evidence that the concentrations are increasing; and 2) for any contaminants discharging into surface water in concentrations³ greater than 100 times their appropriate groundwater “levels,” the estimated total amount (mass in kg/yr) of each of these contaminants that are being discharged (loaded) into the surface water body (at the time of the determination), and identify if there is evidence that the amount of discharging contaminants is increasing.

— If unknown - enter “IN” status code in #8.

Rationale and Reference(s)

Based on aquifer characterization data, groundwater flow velocity in the mid level aquifer (most impacted) is approximately 80 ft/yr. Therefore, the calculated travel time for the site groundwater to reach the nearest downgradient surface water body (Cedar Creek) is approximately 45 years. The current plume configuration appears to represent a mature and shrinking plume. The on-going source area recovery and downgradient groundwater capture remediation systems are accelerating attenuation of the dissolved-phase plume.

Based on CPT evaluations that included off-site sampling near potential discharge points, the concentrations of TCE were found to be below applicable SWPC (Sec. 3.3-RAP). Additional VOC sources were identified downgradient of the site during the CPT study. The CPT sample locations and sampling data are presented in Figure 5 and Table 4 of the Draft RAP. The concentrations of metals and cyanide identified in monitoring wells located near the downgradient site boundary are also below their respective SWPC.

³ As measured in groundwater prior to entry to the groundwater-surface water/sediment interaction (e.g., hyporheic) zone.

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6. Can the **discharge** of “contaminated” groundwater into surface water be shown to be “**currently acceptable**” (i.e., not cause impacts to surface water, sediments or eco-systems that should not be allowed to continue until a final remedy decision can be made and implemented⁴)?

___ If yes - continue after either: 1) identifying the Final Remedy decision incorporating these conditions, or other site-specific criteria (developed for the protection of the site’s surface water, sediments, and eco-systems), and referencing supporting documentation demonstrating that these criteria are not exceeded by the discharging groundwater; OR 2) providing or referencing an interim-assessment,⁵ appropriate to the potential for impact, that shows the discharge of groundwater contaminants into the surface water is (in the opinion of a trained specialists, including ecologist) adequately protective of receiving surface water, sediments, and eco-systems, until such time when a full assessment and final remedy decision can be made. Factors which should be considered in the interim-assessment (where appropriate to help identify the impact associated with discharging groundwater) include: surface water body size, flow, use/classification/habitats and contaminant loading limits, other sources of surface water/sediment contamination, surface water and sediment sample results and comparisons to available and appropriate surface water and sediment “levels,” as well as any other factors, such as effects on ecological receptors (e.g., via bio-assays/benthic surveys or site-specific ecological Risk Assessments), that the overseeing regulatory agency would deem appropriate for making the EI determination.

___ If no - (the discharge of “contaminated” groundwater can not be shown to be “**currently acceptable**”) - skip to #8 and enter “NO” status code, after documenting the currently unacceptable impacts to the surface water body, sediments, and/or eco-systems.

___ If unknown - skip to 8 and enter “IN” status code.

Rationale and Reference(s):___

4 Note, because areas of inflowing groundwater can be critical habitats (e.g., nurseries or thermal refugia) for many species, appropriate specialist (e.g., ecologist) should be included in management decisions that could eliminate these areas by significantly altering or reversing groundwater flow pathways near surface water bodies.

5 The understanding of the impacts of contaminated groundwater discharges into surface water bodies is a rapidly developing field and reviewers are encouraged to look to the latest guidance for the appropriate methods and scale of demonstration to be reasonably certain that discharges are not causing currently unacceptable impacts to the surface waters, sediments or eco-systems.

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7. Will groundwater **monitoring** / measurement data (and surface water/sediment/ecological data, as necessary) be collected in the future to verify that contaminated groundwater has remained within the horizontal (or vertical, as necessary) dimensions of the “existing area of contaminated groundwater?”

P

If yes - continue after providing or citing documentation for planned activities or future sampling/measurement events. Specifically identify the well/measurement locations which will be tested in the future to verify the expectation (identified in #3) that groundwater contamination will not be migrating horizontally (or vertically, as necessary) beyond the “existing area of groundwater contamination.”

___ If no - enter “NO” status code in #8.

___ If unknown - enter “IN” status code in #8.

Rationale and Reference(s):

Continued groundwater monitoring of the existing monitoring well network is planned to ultimately demonstrate compliance with the CTDEP RSRs following remediation system deactivation. Groundwater sampling will be conducted on a quarterly basis. Groundwater monitoring will be conducted on shallow, mid level and deep monitoring wells as show on Figure 9 of the Draft RAP.

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8. Check the appropriate RCRIS status codes for the Migration of Contaminated Groundwater Under Control EI (event code CA750), and obtain Supervisor (or appropriate Manager) signature and date on the EI determination below (attach appropriate supporting documentation as well as a map of the facility).

YE YE - Yes, "Migration of Contaminated Groundwater Under Control" has been verified. Based on a review of the information contained in this EI determination, it has been determined that the "Migration of Contaminated Groundwater" is "Under Control" at the Former Bryant Electric facility, EPA ID # CTD 0901183078, located at 1421 State Street, Bridgeport, Connecticut. Specifically, this determination indicates that the migration of "contaminated" groundwater is under control, and that monitoring will be conducted to confirm that contaminated groundwater remains within the "existing area of contaminated groundwater" This determination will be re-evaluated when the Agency becomes aware of significant changes at the facility.

___ NO - Unacceptable migration of contaminated groundwater is observed or expected.

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

(review of facility submission)

Completed by

[Signature]
Robert O'Meara
US EPA Region I

Date 9/24/01

Supervisor

(signature) *[Signature]*
(print) Matthew R. Hoagland
(title) Section Chief
(EPA Region or State) EPA Reg. 1 - New England

Date 9/26/01

Locations where References may be found:

See attached Draft RAP

Contact telephone and e-mail numbers

Leo M. Brausch
(412) 642-3922
lmbrausch@cbs.com

Question 2				
Media	Is media contaminated above appropriately protective risk-based levels?	Discussion	Are there complete pathways	
Groundwater	Yes	<p>Appropriate levels used in this evaluation included CTDEP Remediation Standard Regulations (RSRs) Surface Water Protection Criteria (SWPC) throughout the water column; Residential Volatilization Criteria (RVC) for groundwater at the downgradient property boundaries; and Industrial/Commercial Volatilization Criteria (I/C VC) for on-site shallow</p> <p>near potential surface water discharge points, the concentrations of VOCs were found to be below their respective SWPC.</p> <p>Metals analysis was not conducted during the April 2001 sampling round. Cyanide and metals including arsenic, lead, copper, and zinc have been periodically detected above the SWPC in past sampling events, but have remained below their respective SWPC in monitoring wells located near the downgradient site boundary. Groundwater monitoring well locations and monitoring data is summarized in Figure 9 and Table 2 of the Draft RAP. The CPT sample locations and sampling data are presented in Figure 5 and Table 4 of the Draft RAP.</p>	Residents	No
			Workers	No
			Day-Care	No
			Construction Worker	No*
			Trespassers	NA

Question 3		Question 4		Question 5	Question 6
Rationale		Can exposures from complete pathway reasonably be expected to be significant (with respect to the "acceptable levels" used in Question 2)?			
No private or public water supply wells in the immediate vicinity; State classified non-drinking water aquifer in industrial/commercial area.					YE
No water supply wells; State classified non-drinking water aquifer beneath facility.					YE
No Day-Care facilities					YE
The depth to groundwater beneath the site ranges from approximately 6.5 to 14 feet below ground surface (bgs). Excavations planned for the redevelopment of the Site are not expected to extend to the groundwater table, therefore, it can be reasonably expected that under current uses, construction workers would not encounter contaminated groundwater.					YE
					YE

Groundwater (continued)			Recreation	No
			Food Supply	No
Air (Indoors)	No	No buildings currently exist on site. Exceedences of the I/C VC for certain VOCs have been documented, however the air sparge/soil vapor extraction (AS/SVE) system currently operating at the Site is containing these VOCs	Residents	NA
			Workers	NA
			Day-Care	NA
			Construction	NA
			Trespassers	NA
			Recreation	NA
			Food Supply	NA

<p>Groundwater beneath site is classified as being degraded and not suitable as a potential drinking water source. Public water supply is available at the site and surrounding vicinity.</p>				<p>YE</p>
<p>No water supply wells (irrigation or produce) are located within the area of contaminated groundwater from the facility. Based on the comparison of site data to the SWPC no metals or cyanide were detected in excess of the SWPC in wells at the downgradient property boundary. No concentrations of VOCs were detected in the CPT locations positioned nearest to the surface water (Cedar Creek). Although VOCs and metals were detected at concentrations in excess of the SWPC in some wells located beneath the site, the plume is considered in "stabilized" (i.e., CA 750 achieved).</p>				<p>YE</p>
				<p>YE</p>

Surface Soil (<2 ft)	Yes	<p>There is one area of potential environmental interest (PEI) at the Site, identified as the Eastern Area of PEI-2/28, with surface soils that contain semi-volatile organic compounds (SVOCs) and lead at concentrations exceeding the CTDEP RSR Industrial/Commercial Direct Exposure Criteria (DEC - I/C) and/or the GB Pollutant Mobility Criteria (GB PMC). The location of this area is shown on Figure 3 of the Draft RAP. In addition, a summary of the current soil sampling</p> <p>Site is located in an area of GB groundwater designation, per the "Adopted Water Quality Classifications for the Southwest Coast River Basin", dated April 1985.</p>	Residents	No
			Workers	No
			Day-Care	No
			Construction	No*

<p>There are no residents on the Site; Deed Restriction in 1995 Lease & Sales agreement and planned ELUR prohibits residential use.</p>					<p>YE</p>
<p>At present, the Site is vacant and there are no workers. The City of Bridgeport plans to construct a 200,000 square foot building at the Site, as part of the West End Redevelopment project. As indicated in the attached Draft RAP, upon completion of the Site redevelopment activities, all impacted surface soils from the Eastern Area of PEI-2/28 will be located under the new building, rendering them inaccessible and environmentally isolated. As such, there will be no complete exposure pathway for workers.</p>					<p>YE</p>
<p>There are no Day-Care facilities on the Site; Deed Restriction in 1995 Lease & Sales agreement and planned ELUR prohibits use as Day-Care.</p>					<p>YE</p>
<p>At present, there are no on-going Site construction activities. During the proposed redevelopment of the Site, there is a potential exposure concern from direct contact with soils and inhalation of dust during construction and excavation activities. These concerns will be addressed through adherence to Site-specific safety procedures to be implemented during the construction phase. Upon completion of the Site redevelopment, all impacted surface soils in the Eastern Area of PEI-2/28 will be rendered inaccessible and environmentally isolated, and an ELUR, meeting the requirements of 22a-133k-2(b)(3) and 22a-133k-2(c)(4)(B) of the RSRs, will be prepared and executed for the Site. As such, there will be no complete exposure pathway for construction workers.</p>					<p>YE</p>

Surface Soil (<2 ft) (continued)				Trespassers	No*
				Recreation	No
				Food	No
Surface Water	No	Based on CPT evaluations that included off-site sampling near potential discharge points, the concentrations of trichloroethylene (TCE) were found to be below applicable SWPC (Sec. 3.3-Draft RAP). Additional VOC sources (e.g.		Residents	NA
				Workers	NA
				Day-Care	NA
				Construction	NA
				Trespassers	NA
				Recreation	NA

<p>At present, the Site is fenced, gated, and locked. As such, exposures to trespassers would not be reasonably expected. Upon completion of the Site redevelopment activities, all impacted surface soils from the Eastern Area of PEI-2/28 will be located under the new building, rendering them inaccessible and environmentally isolated. As such, there will be no complete exposure pathway for trespassers.</p>					YE
<p>There are no recreational facilities or activities on the Site; Deed Restriction in 1995 Lease & Sales agreement prohibits use for youth recreational activities.</p>					YE
<p>There are no vegetables, fruits or other crops grown on the Site; The grass on the Site is not consumed by animals used to provide meat or dairy products; 1995 Lease & Sales agreement prohibits any use involving food preparation or the storage or sale of articles related to such use.</p>					YE
					YE

Sediment	No	On-site sediments associated with former catchbasins are discussed in the subsurface soils sections. Adverse impacts to the downgradient surface water receptor (Cedar Creek) are not likely since it has been demonstrated that no surface water impacts from the site have occurred.	Food Supply	NA
			Residents	NA
			Workers	NA
			Day-Care	NA
			Construction	NA
			Trespassers	NA
			Recreation	NA
			Food Supply	NA
Subsurface Soil (> 2ft)	Yes	There are four areas of potential environmental interest (PEIs) at the Site with subsurface soils that contain SVOCs, cadmium, and/or lead at concentrations exceeding the CTDEP RSR DEC - I/C and/or the GB PMC. These areas are	Residents	NA
			Workers	NA
			Day-Care	NA

		<p>There is also a fifth area, PEI-29, that contains TCE-impacted soils. The location of this area is shown on Figure 3 of the Draft RAP. Several soil samples collected from PEI-29 in 1997 showed TCE concentrations ranging from 1.4 to 400 mg/kg, which exceeded the GB PMC of 1 mg/kg for TCE, but were below the DEC – I/C of 520 mg/kg. A SVE/AS system is currently operating in this area and confirmatory soil samples have not been collected since the system was activated in January 1998. A proposed plan for conducting confirmatory soil sampling in this area is provided in the Draft RAP (section 6.3.2).</p>	Construction	No*
			Trespassers	NA
			Recreation	NA
			Food	No
Air (Outdoors)	No	Soil sampling data in the upper four feet beneath the site was compared to the	Residents	NA
			Workers	NA
			Day-Care	NA
			Construction	NA
			Trespassers	NA
			Recreation	NA
			Food Supply	NA

Notes:

1. For items noted as "No*" under Question 3, there will not be a complete pathway between "contamination" and human receptors once the Site

<p>At present, there are no on-going Site construction activities. During the proposed redevelopment of the Site, there is a potential exposure concern from direct contact with soils and inhalation of dust during construction and excavation activities. These concerns will be addressed through adherence to Site-specific safety procedures to be implemented during the construction phase. Upon completion of the Site redevelopment, all impacted subsurface soils will be rendered inaccessible and/or</p> <p>environmentally isolated, and an ELUR, meeting the requirements of 22a-133k-2(b)(3) and 22a-133k-2(c)(4)(B) of the RSRs, will be prepared and executed for the Site. As such, there will be no complete exposure pathway for construction workers.</p>				YE
				YE
				YE
<p>There are no vegetables, fruits or other crops grown on the Site; 1995 Lease & Sales agreement prohibits any use involving food preparation or the storage or sale of articles related to such use.</p>				YE
				YE

development activities are completed, as explained under "Rationale".