



RDMS DocID 106705

RCRA RECORDS CENTER
FACILITY East Coast Env.
I.D. NO. CTD089631956
FILE LOC. E-13
OTHER 106705

DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION

Interim Final 2/5/99

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

Current Human Exposures Under Control

Facility Name: East Coast Environmental Services Corp.
Facility Address: 454 Quinnipiac Avenue, New Haven, CT 06513
Facility EPA ID #: CTD089631956

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 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 "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).

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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)?

	<u>Yes</u>	<u>No</u>	<u>?</u>	<u>Rationale / Key Contaminants</u>
Groundwater	___	___	<u>X</u>	_____
Air (indoors) ²	___	<u>X</u>	___	_____
Surface Soil (e.g., <2 ft)	___	___	<u>X</u>	_____
Surface Water	___	___	<u>X</u>	_____
Sediment	___	___	<u>X</u>	_____
Subsurf. Soil (e.g., >2 ft)	___	___	<u>X</u>	_____
Air (outdoors)	___	<u>X</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.

___ 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.

X If unknown (for any media) - ~~skip to #6 and enter “N” status code.~~ **NRH 2/9/04**
FB 2/9/04
(Continuing on to #3 on the belief that all pathways are incomplete/insignificant)

Rationale and Reference(s): Inspections conducted by the CT DEP in 1984 indicted that a pile of uncovered sludge was stored on a concrete containment pad and according to a facility representative the sludge was stored on the ground without a containment pad prior to 1983. In addition, a tank appeared to be leaking a corrosive liquid. The tank was located over soil at that time. A 1986 inspection identified a PCB transformer, stored on a concrete pad, that was leaking. The facility is located along the banks of the Quinnipiac River (500+ feet across at this location) and groundwater flows to the river. These events indicate a possibility of contamination to soils and eventually to groundwater and sediments and surface water. There is no soil/groundwater/sediment data to verify this assumption.

Reference: Environmental Indicator Report revised 12/19/96 and site visit conducted 9/24/03 by EPA. These references are for all items in this checklist. _____

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 appropriately protective risk-based “levels” (or the media, that identify risks within the acceptable risk range).

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

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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)

<u>“Contaminated” Media</u>	Residents	Workers	Day-Care	Construction	Trespassers	Recreation	Food ³
Groundwater	_N_	_N_	_N_	_N_			_N_
Air (indoors)							
Soil (surface, e.g., <2 ft)	_N_	_N_	_N_	_N_	_N_	_N_	_N_
Surface Water	_N_	_N_			_N_	_Y_	_N_
Sediment	_N_	_N_			_N_	_Y_	_N_
Soil (subsurface e.g., >2 ft)				_N_			_N_
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 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): ___ The river is designated SC/SB. Designated uses include wildlife habitat, navigation, industrial water supply and recreation. Groundwater & Surface water pathways are cut off since they are not used for drinking water or food production or subsistence fishing although the surface water pathway is open for recreational use. The river bank is shored up with driven sheet piles. The soil pathways are cut off since the facility is closed and all tanks and drums have been removed and access to the facility is controlled by an 8 foot barbed wire topped chain link fence with locked gate in good condition. There are danger/no trespassing signs posted on the fence. The facility is entirely paved with asphalt and there was no evidence of surface contamination. There is no construction activity underway.

Footnotes:

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

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

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

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

_____ If unknown (for any complete pathway) - skip to #6 and enter “IN” status code

Rationale and Reference(s):__ The river is designated SC/SB. Designated uses include wildlife habitat, navigation, industrial water supply and recreation. Surface water could be used for recreation but any exposure would be insignificant because the facility groundwater discharge in relation to the size of the river make the dilution factor for any contaminated discharge overwhelming. There was no sheen observed on the water surface, during the 9/24/03 site visit, which would indicate a substantial contaminant discharge. To surface water. The river is 600-700 feet across and is a tidal river with a deep water channel for large ships and the facility frontage is about 500 feet. Storage of waste occurred in about 200 feet of the river frontage. There were no large spills of wastes that could migrate through soils to the sediment/surface water reported. The sediment pathway is essentially cut off since it is 10+ feet below the surface water and any contact would be insignificant.

Reference: Environmental Indicator Report revised 12/19/96 and site visit conducted 9/24/03 by EPA. These references are for all items in this checklist. _____

Footnotes:

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

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5 Can the “significant” exposures (identified in #4) be shown to be within acceptable limits?

_____ 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): _____

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

 X YE - Yes, "Current Human Exposures Under Control" has been verified. Based on a review of the information contained in this EI Determination, "Current Human Exposures" are expected to be "Under Control" at the **East Coast Environmental** facility, **EPA ID #CTD089631956**, located at **454 Quinnipiac Avenue, New Haven, CT 06513** under current and reasonably expected conditions. 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.

Completed by (signature) Frank Battaglia Date 9/25/03
(print) Frank Battaglia
(title) RCRA Facility Manager

Supervisor (signature) Matthew R. Hoagland Date 2/9/04
(print) Matthew R. Hoagland
(title) Section Chief, RCRA Corrective Action
(EPA Region or State) EPA New England

Locations where References may be found:

 EPA New England files

Contact telephone and e-mail numbers

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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.