

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: Clean Harbors Baltimore
Facility Address: 1910 Russell Street, Baltimore, MD 22130
Facility EPA ID #: MDD 980 555 189

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 "IN" (more information needed) status code.

BACKGROUND

The Clean Harbors facility is located at 1910 Russell Street, Baltimore, MD 21230 in the southwestern portion of Baltimore. The facility is located adjacent to a highway on-ramp in a dense industrial area. A small cove is located directly to the east and residential and recreational areas are located approximately $\frac{3}{4}$ of a mile to the west, north and south. The site is located on the northwest side of Russell Street; Interstate 95 is located to the south (approximately 250 feet) of the site.

According to the 1991 Phase II RCRA Facility Assessment Report, information included on an 1896 topographic map indicates that the property was previously used as a dump site. Sun Oil used the site as a storage and transfer facility from 1932 to 1972. Skyline Terminals operated a paint transfer facility from 1972 until 1979 (may have also used the site for paint and sludge storage). The City of Baltimore owned the property from October 1979 until April 1986, during which ChemClear conducted an aqueous waste treatment operation at the site. Ownership was transferred to ChemClear in May 1986. In January 1989, Clean Harbors purchased ChemClear and this property.

The Clean Harbors facility consists of an administrative building, a maintenance building, a process building for aqueous waste, a process building for organic aqueous waste, several storage tank basins, a waste receiving area, two railroad spurs, a waste storage area and bulk solid storage area, a waste oil storage area, and a laboratory trailer.

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).

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

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		X		While no groundwater data is available, no evidence of releases to groundwater was found in files reviewed. All spills were cleaned up and no ongoing releases occurred.
Air (indoors) ²		X		No evidence of indoor air issues were found in files reviewed.
Surface Soil (e.g., <2 ft)		X		Some spills occurred that were contained and cleaned up to regulatory satisfaction.
Surface Water		X		There are no outfalls nor reported discharges to the creek located 500 feet from the site.
Sediment		X		No evidence of releases to surface water was found in files reviewed.
Subsurf. Soil (e.g., >2 ft)		X		Spills have occurred, which were contained and cleaned up.
Air (outdoors)		X		Complaints were filed about noise until a sound wall was installed, no evidence of additional noise complaints was found in the files reviewed.

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

Rationale and Reference(s):

Groundwater - No evidence of releases to groundwater was found in files reviewed. No information regarding nearby drinking water wells was found. Due to the highly industrialized nature of the surrounding community and the fact that the area is served by the Baltimore City municipal water system, it is unlikely that any drinking water wells are located within close proximity of the facility.

Indoor Air - No evidence of indoor air issues were found in files reviewed.

Outdoor Air - A single air release was reported in an October 9, 2001 Notice of Violation. The release was primarily comprised of particulates and odor, which were observed and reported by neighbors. No evidence of other releases was found in files reviewed.

Surface Soil/Subsurface Soil - Numerous small releases were contained and cleaned up throughout the site’s history. Soil was removed from site due to two spills as summarized below:

On May 24, 1989, approximately 382,500 gallons of treated effluent were released after the failure of the original storage

tank. Adsorbents were used to stop wastewater from entering the storm drains. Vacuum trucks were used to collect the water not contained by the earthen depression. The collected material was pumped into Storage Tank No. 10 (SWMU No. 31). Contaminated adsorbents and debris were containerized and taken off-site. The old tank was cut up and removed from the site on May 26, 1989.

A release of approximately 500 gallons of material was documented in a June 14, 1984 letter. A trench was excavated immediately to contain all the liquid, which was then removed by a vacuum truck. A temporary drain was installed to remove the spilled material from the tank pad. The surround soils were then removed and the contents of the tank were pumped out and treated. The tank was removed from service after this release. All areas that contain hazardous waste employ dual containment, and the entire site is paved in asphalt or concrete.

Sediment/Surface Water - There are no outfalls or discharges on site. A June 28, 1994, Complaint, Order, and Administrative Penalty issued by the MDE resulted from observations made during MDE's 1992 and 1993 inspections. According to a June 13, 1994 MDE Status Memorandum, the MDE suspected unregulated toxins in the water which may have been discharged to Back River. No further information was found in files reviewed.

Current Human Exposures Under Control

Environmental Indicator (EI) RCRIS code (CA725)

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

Summary Exposure Pathway Evaluation Table

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

“Contaminated” Media	Residents	Workers	Day-Care	Construction	Trespassers	Recreation	Food ³
Groundwater							
Air (indoors)							
Soil (surface, e.g., <2 ft)							
Surface Water							
Sediment							
Soil (subsurface e.g., >2 ft)							
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).
- 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):

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

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

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)?
- 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):

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.

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

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):

