

Basis for Human Exposures Controlled Determination
RCRIS Code CA725
at
Clean Harbors-Broderick Rd Facility
EPA ID No. CT000604488
51 Broderick Rd.
Bristol, CT

The purpose of this report is to provide the basis for determining that the Clean Harbors-Broderick Rd Facility can be recorded with the status code of **YE** under the RCRIS Event Code of CA725--Human Exposures Controlled.

Based on the information available, and subject to the limitations sited below, there are no current unacceptable risks to humans due to releases of contaminants subject to RCRA Corrective Action. This determination is made in accordance with the "Stabilization" guidance sent to Regional Waste Management Directors by Michael Shapiro on July 29, 1994, and is based on the facts, conclusions and references outlined below.

1. CONCLUSION

There is no unacceptable human exposure to any contaminant concentration above action levels that has been detected or is reasonably suspected based on current contaminant concentrations and current site conditions. Although contamination remains at the facility that may require further remediation, action has been taken and¹ site conditions are otherwise such that unacceptable threats to human health from actual exposure to the contamination are not plausible based on current uses of the site.

2. RELEASE SUMMARY²

The facility stores and treats a variety of aqueous and solid hazardous wastes. It is located in an industrial area served by public water and sewers. The closest private wells are 3000 to 4000 feet east of the site. No other use of area

¹ Because (1) interim measures had been performed at the facility and (2) current conditions are such that no unacceptable risks to human health exist, the CA725 indicator code may be met by either, or both, conditions.

² RCRA Facility Investigation, 51 Broderick Road, Bristol, CT, January 1992.

groundwater for potable purposes has been identified. A surface water stream adjacent to the site (Class B) drains to the Eightmile River which is a CTDEP Class B stream located approximately 2500 feet to the southwest.

The site is underlain by a single overburden aquifer composed of glacial outwash and till deposits with a saturated thickness of approximately 30 to 40 feet. Average horizontal flow velocity in the aquifer is estimated to be on the order of 150 to 380 feet per year ($1.48e^{-9}$ to $3.75e^{-9}$ cm²). Groundwater flow is in a southwesterly direction.

Certain metals (zinc, copper, chromium, nickel) and VOCs (PCE) were detected in site soils at low ppb levels both up and downgradient of the facility. The presence of these constituents is considered to be attributable to the historic use of the area upgradient of the facility.

Eight to nine documented releases of hazardous wastes occurred at the facility, most of which occurred within containment areas. One of the releases involved a release on July 26, 1984 of treated wastewaters from an effluent holding tank located along the northeast corner of the main building - the tank was repaired and the contaminated soils were excavated³ - samples taken from the underlying soils indicated the release had been remediated. Another release consisted of treated wastewaters and metal hydroxide sludges. The CTDEP was satisfied with the facility's responses to these incidents.

As a result of the RFI findings, EPA required the facility to implement a year-long groundwater monitoring program. The results of the program indicate the presence of low and decreasing levels of select metals and VOCs.

3. RELEVANT CONDITIONS AND ASSUMPTIONS

- Contamination releases are currently believed to be located only within the facility's boundary (although it is reasonably contended that on-site contamination may be the result of migration of background contamination onto the facility property).

³ Although this event is the effective equivalent of an interim measure (IM), at this time, there is no written evidence of State approval of the IM. EPA intends to request confirmation from the State within the near future. Once EPA receives some confirmation of the IM, this event can be entered into RCRIS as CA600 and CA650.

At this time, contaminants on site represent isolated and discrete point sources in ppb range - i.e., there is no discernable plume.

- The site is located in an industrial area served by public water and sewers.
- Human exposures are not at levels that would pose an unacceptable risk based on an assessment of current risk.⁴
 - Exposure of trespassers or visitors to wastes or contaminated soils is implausible due to fencing and facility management.
 - Exposure of on-site workers to wastes or contaminated soils is implausible since there is no surface soil contamination and facility is served by public water supply.
 - Contamination releases in groundwater may have - but are not likely to have - migrated beyond the facility boundary. However, offsite human exposures is not plausible due to the lack of off-site groundwater receptors and the general industrial nature of the vicinity. It is unknown whether other institutional controls such as deed restrictions or formal town notification have been implemented.
 - Although there is a surface water stream downgradient of the facility, the low levels of contaminants in groundwater, coupled with the low hydraulic conductivity of the overburden and the significant dilution and aeration which would result were groundwater contaminants to enter the stream from groundwater recharge, would render the potential contamination of surface water from on-site contaminants implausible. It should be noted that confirmation of this finding would be required in order to satisfy the requirements of a final remedy; specifically, the facility would be required to confirm, by sampling, that the stream surface water meets ambient groundwater quality criteria for a release to surface water. It should also be noted that a scheme by which the facility could achieve a final remedy was outlined in a letter to the facility dated October 2, 1995.

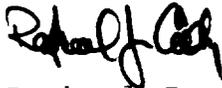
⁴ Id.; Annual Report on Groundwater Monitoring, December 1993.

4. REFERENCES

- a. RCRA Facility Investigation, 51 Broderick Road, Bristol, CT, January 1992.
- b. Annual Report on Groundwater Monitoring, December 1993.

5. SIGN OFF

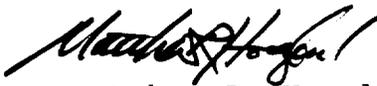
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Date 6/4/96