

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

Facility Name: Former Handy & Harman Facility
 Facility Address: 1770 Kings Highway, Fairfield, Connecticut
 Facility EPA ID #: CTD018656819

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?

X 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).

RCRA RECORDS UNIT
 FACILITY Former Handy & Harman
 I.D. NO. CTD018656819
 FILE LOC. R-13
 OTHER 106665



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

Page 2

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?

X 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):

Figures illustrating sample locations and current site features are included as **Figures 1 and 2**. Figures illustrating groundwater elevations and flow directions are provided as **Figures 3 through 6**. Data tables summarizing groundwater data are included as **Tables 1, 2 and 7**. Figures illustrating the extent of impact are included as **Figures 7 and 8**. Graphs illustrating concentrations over time of contaminants of concern observed in key monitoring wells are also attached. A Remedial Action Plan prepared in April 2004 for the Parcel 1 soil excavation and facility demolition remedy has been submitted to the Connecticut Department of Environmental Protection (CTDEP) and the City of Fairfield Conservation Department. A copy of the Environmental Conditions Assessment Form (ECAf) completed in January 2004 for the transfer of Parcel 1 to new owners, which includes a conceptual site model, is on file at the CTDEP and is attached.

Groundwater samples collected from Parcel 1 exceeded industrial/commercial volatilization criteria (I/C VC) for 1,1-DCE (RX-9B), TCE (RX-3B, RX-4B and RX-9B) and VC (RX-3B and RX-9B). Note that all buildings on Parcel 1 have been or will be demolished during the fall of 2005. Groundwater samples collected from Parcel 1 exceeded surface water protection criteria (SWPC) for 1,1-DCE (RX-9B). Only one groundwater sample collected from Parcel 1 exceed the SWPC, however as groundwater located on Parcel 1 does not discharge directly to surface water, this criteria is not applicable. Groundwater samples collected from Parcel 2 exceeds I/C VC for TCE (RX-5D, RX-6B, RX-6I, RX-6SB, RX-7B and RX-13B) and VC (RX-6I, RX-6SB and RX-13B). Note that all buildings on Parcel 2 are unoccupied and are located behind a locked gate. Groundwater samples collected from Parcel 2 exceeds SWPC for 1,1-DCE (RX-6B, RX-6I, RX-6SB, RX-7B and RX-13B) and for various metals (sporadic exceedances. Groundwater collected from beneath the wetlands from piezometers exceed the SWPC for acenaphthylene, benzo[a]anthracene, benzo[a]pyrene, benzo[b]fluoranthene, benzo[k]fluoranthene and phenanthrene (TW-1B, TW-5, TW-6 and TW-6B) and for arsenic, cadmium, copper, lead, mercury, selenium, silver and zinc (TW-1B, TW-2, TW-2B, TW-3B, TW-4, TW-5, TW-6, and TW-6B). Groundwater beneath the facility has been classified as GB by the CTDEP and as a result, drinking water standards are not applicable. Drinking water for the former facility and the surrounding properties is supplied by the Bridgeport Hydraulic Company as verified in a 2002 receptor survey completed by HRP Associates (attached). Groundwater samples collected from Parcel 2 (i.e., the western parcel and formerly occupied by the employee parking lot and containing a dense wetland and Turney Creek) revealed I/C VC exceedances in six wells only one of which is screened in the overburden. As no occupied structure currently exists on Parcel 2 and as access is controlled with a locked gate and given the fact that no structure is located closer than 50 feet to a monitoring well exhibiting an I/C VC exceedances, the I/C VC criteria are not applicable. Groundwater samples collected from five monitoring wells on Parcel 2 exhibited sporadic exceedances of the SWPC.

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).

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

Page 3

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)?

X 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 beneath the Site migrates towards the west southwest and discharges to the wetlands and Turney Creek located on Parcel 2. Figures illustrating groundwater elevations and flow directions are included as **Figures 3** through **6**. The wetlands and creek act as a barrier for continued migration. Vertical gradients observed during several groundwater elevation gauging events, which are summarized in **Table 10**, suggest that vertical flow potentials are variable and are most likely sensitive to precipitation events. However it should be noted that eight out of the 17 Parcel 2 vertical gradients that cross the overburden/bedrock contact were upward. Additionally, groundwater data collected from monitoring wells located on both Parcel 1 and 2 suggest groundwater concentrations are relatively stable as illustrated on the attached graphs. It is noted that groundwater samples collected from monitoring well RX-9 and RX-9B, an overburden/bedrock well couplet located along the western property line on Parcel 1, contain elevated concentrations of several contaminants of concern. However, only monitoring well RX-9B contains compounds that exceed any applicable standard (1,1-DCE, TCE and vinyl chloride above the I/C VC). It should be noted that RX-9B is screened from 28 feet below grade (fbg) to 38 feet fbg. Concentrations in RX-9 have been relatively stable and have even decreased in some cases, while concentrations in RX-9B have shown an increase. Although no monitoring wells exist west of RX-9B, based upon the fact that bedrock fractures have been found to strike in a north-south direction contaminants observed in bedrock monitoring well RX-9B would be expected to migrate towards Parcel 2. As a result, off-site impact towards the west is not expected. Additionally, natural attenuation parameters (DO, ORP, ferrous iron, chloride, nitrate and sulfate) collected from Parcel 1 and Parcel 2 monitoring wells suggest favorable conditions for reductive dechlorination of the dissolved organic compounds suggesting degradation related plume stability can be reasonably expected. Natural attenuation parameters are summarized in **Table 8**.

On going sources, if any, from operations (i.e., releases) ceased when commercial operations ended in late 2002. Additionally, wastewater discharges to the wetlands ceased in 1996 when Handy & Harman began sending wastewater to the City of Bridgeport sanitary sewer system. Handy & Harman is currently excavating and transporting off-site for disposal soils from Parcel 1 that exceed Connecticut Department of Environmental Protection (CTDEP) GA pollutant mobility criteria (PMC) as part of a Remedial Action Plan being conducted in accordance with the Remediation Standard Regulations and the Connecticut Transfer Act.

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.

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

5. Is the **discharge** of “contaminated” groundwater into surface water likely to be “**insignificant**” (i.e., the maximum concentration 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)?

_____ If yes - skip to #7 (and enter “YE” status code in #8 if #7 = yes), after documenting: 1) the maximum known or reasonably suspected concentrations 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.

X If no - (the discharge of “contaminated” groundwater into surface water is potentially significant) - continue after documenting: 1) the maximum known or reasonably suspected concentrations 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 concentrations 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):

The discharge of groundwater into surface water is potentially significant.

1) As summarized in the table below, groundwater samples collected from wetland piezometers located adjacent to Turney Creek (TW-5 and TW-6) contained dissolved metal concentrations greater than 10 times the CTDEP surface water protection criteria (SWPC) for arsenic, cadmium and copper. Groundwater data collected from wetland piezometers is provided in **Table 9**.

Constituent	Surface Water Protection Criteria (mg/L)	Maximum Groundwater Concentrations (mg/L)
Dissolved Arsenic	0.004	0.081
Dissolved Cadmium	0.006	0.470
Dissolved Copper	0.048	3.300

Surface water samples collected within Turney Creek adjacent to the Site did not exceed CTDEP water quality criteria for acute and chronic toxicity. However surface water samples collected from two off-Site downstream sample locations (SW-8 and SW-9 located approximately 1000 feet from the property boundary) did contain elevated cadmium concentrations (15 µg/L and 17 µg/L, respectively) above the CTDEP water quality criteria.

There is currently no evidence that concentrations in the wetland groundwater are increasing based upon the following:

- Wastewater discharge to the wetlands via the on-Site wastewater treatment plant/oil water separator ceased in 1996 when discharge was routed to the City of Bridgeport sanitary sewer system; and
- Groundwater concentrations upgradient of the delineated wetland are stable.

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

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

Page 6

2) Metal concentrations in the groundwater collected from wetland piezometers are *not* greater than 100 times the CTDEP surface water protection criteria.

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)?

X 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):_

The discharge of groundwater into surface water is currently acceptable.

2) CTDEP has classified the Site groundwater as GB; known or presumed to be in degraded condition. GB groundwater may be suitable to receive discharges of domestic sewage, effluents containing substances of natural origin, and certain treated industrial process waters that can be further treated by introduction to the soils. GB groundwater is typically considered to be unsuitable for drinking without treatment.

Turney Creek flows from the north to south and is located along the westerly portion of Parcel 2. Turney Creek is a small tributary of Ask Creek, which is located approximately one thousand feet to the southeast, and is the nearest major water body. The CTDEP has classified the surface water quality of this section of the creek as “SC/SB”. The “SC” classification represents a present surface water quality that is not meeting water quality criteria in one or more designated uses due to pollution. The “SB” surface waters may be suitable to receive cooling water discharges and major and minor discharges from municipal and industrial wastewater treatment systems. Designated uses for Class “SB” surface water include recreation, fish and wildlife habitat, use for industrial supplies, and other legitimate uses include navigation.

⁴Note, 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.

⁵The 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.

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

Page 7

Stormwater collected in the catch basins located on Parcel 1 is conveyed via a 12" diameter storm sewer to the NPDES discharge outfall known as DSN-001B. This storm sewer line also collected the stormwater from Grasmere Avenue and portions of the Home Depot parking lot. NPDES outfall DSN-001B discharges to the wetland in Parcel 2, which flows to Turney Creek. Operation of the on-Site wastewater treatment plant ceased in 1996 following the connection to the town sewer.

Sediment/Soil

A total of 21 sediment/soil sample locations have been investigated across the Parcel 2 wetlands and in Turney Creek (Figure 1 and Figure 2). Composite sediment/soil samples were collected in depths ranging from 1 foot to 4 feet below land surface. Sediment/soil samples were analyzed for Target Compound List (TCL) VOCs, SVOCs, PCBs and Pesticides, Target Analyte List (TAL) inorganics, and various general parameters including: total organic carbon, alkalinity, sulfate, chloride, ortho-phosphate, chemical oxygen demand (COD), total kjeldahl nitrogen, and cyanide. Wetland soil contained total organic carbon (TOC) concentrations ranging from 1.9 percent to 36 percent, averaging 17.6 percent.

Site wetland sediment/soils were evaluated based upon the CTDEP Industrial/Commercial (I/C) Direct Exposure Criteria (DEC). VOC concentrations detected in wetland soil on the Site were below CTDEP I/C DEC soil criteria. Five SVOC compounds detected in wetland soil exceeded CTDEP I/C DEC: benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, dibenzo(a,h)anthracene, indeno(1,2,3-c)pyrene. Exceedances occurred in three surface (0 to 12 inches) soil locations (SS-1, SS-9, and SS-10). Between 12 and 24 inches, three soil locations (SS-2, SS-4 and SS-16) contained SVOC concentrations exceeding I/C DEC. Between 24 and 48 inches, only soil sample location SS-2 contained SVOC concentrations in exceedances of I/C DEC.

Four metal compounds detected in wetland sediment/soil exceeded CTDEP I/C DEC: arsenic, beryllium, cadmium and lead (SS-2, SS-7, SS-8, SS-9, SS-10, SS-11, and SS-13). Between 12 and 24 inches, three soil locations (SS-2, SS-6 and SS-10) contained SVOC concentrations exceeding I/C criteria. Between 24 and 48 inches, only soil sample location SS-2 contained metal concentrations in exceedances of I/C DEC.

Site wetland sediment/soils were further evaluated for potential impacts to benthic aquatic life by comparison of the inorganic sediment/soil sample results to the Lowest Effects Level (LEL) and Severe Effects Level (SEL) ecological screening criteria developed by the National Oceanic Atmospheric Administration (NOAA). Sediment toxicity investigations are generally confined to the soil biological zone, generally the top 12 inches of soil (EPA, 2001). Any contaminant exceedances reported below 12 inches were not considered bioavailable and therefore not toxic.

As shown in the Table 9, sediment samples collected from within the on-Site portion of Turney Creek (SS-15) and bank (SS-16) contained elevated metal concentrations above ecological screening criteria (Severe Effects Level for freshwater). Upstream of SS-15, a sediment sample collected from within the northern on-Site reach of Turney Creek (SS-5) contained significantly lower metal concentrations (only lead exceeded SEL criteria). While immediately downstream of SS-15, two sediment samples collected from within on-Site (SS-21) and off-Site regions of Turney Creek (SS-19 and SS-20) contained significantly lower metal concentrations (only copper and silver exceeded SEL criteria at SS-20), suggesting that the elevated metal concentrations at SS-15 and SS-16 are isolated.

Groundwater

A key objective of the wetland-sampling program was to characterize the groundwater beneath the wetland. To meet this objective, a water level monitoring network was established across the Parcel 2 wetland and in Turney Creek. The study area network consisted of seven temporary piezometers (TW-1 through TW-7) longitudinally spaced across the wetland and Turney Creek. Groundwater samples were analyzed for TCL VOCs, SVOCs, TAL dissolved metals, dissolved organic carbon, and alkalinity. Groundwater collected from all wetland piezometer locations on the Site did not contain concentrations of VOC above CTDEP Surface Water Protection Criteria (SWPC). Six SVOC concentrations were detected above SWPC: acenaphthylene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene and phenanthrene. Dissolved lead, cadmium, copper, mercury, silver and zinc were detected above SWPC in wetland groundwater samples. Groundwater samples collected from piezometers located adjacent to Turney Creek (TW-5 and TW-6) contained dissolved metal concentrations greater than 10 times the CTDEP surface water protection criteria (SWPC) for arsenic, cadmium and copper. A summary of the

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

Page 8

SWPC exceedances in the wetland groundwater compared to the groundwater collected from the Parcel 1 and 2 monitoring wells is located in Tables 1, 2 and 7.

Surface Water

A total of 13 surface water samples were collected to determine the presence and extent of Site-related impacts to surface waters in the wetland and Turney Creek (Figure 1). Surface water samples were analyzed for TCL VOCs, SVOCs, PCBs and Pesticides, TAL inorganics (total and dissolved), and various general parameters including sulfate, chloride, ortho-phosphate, total suspended solids, total dissolved solids, TOC, alkalinity, COD, TKN and cyanide. Surface water samples collected from the Site wetland were evaluated based upon the applicable CTDEP aquatic life protection criteria for acute and chronic toxicity (Table 11). Dissolved cadmium, copper, lead, nickel, silver and zinc were detected above CTDEP acute and/or chronic toxicity criteria in the surface water samples collected from within the Parcel 2 wetlands (SW-3 and SW-4). Immediately adjacent to the Site (SW-2), dissolved cadmium, copper and nickel exceeded CTDEP surface water quality criteria. Further downstream (SW-7 through SW-10), only dissolved cadmium concentrations in the Turney Creek surface water exceeded CTDEP surface water quality criteria.

Groundwater/Surface Water Exchange

As illustrated in Figures 3 through 6, the overall groundwater flow direction on Parcel 2 is west-southwest toward Turney Creek. Vertical gradient are variable as discussed in item 3 above. When present, the vertical upward hydraulic gradient in the upland monitoring wells on Parcel 2 is small (less than 0.02 feet), suggesting horizontal groundwater flow to the Parcel 2 wetlands and Turney Creek rather than significant upwelling from the deeper overburden groundwater.

To further evaluate surface water and groundwater movement within the wetlands and determine the extent of tidal flux, two staff gages were installed adjacent to the SS-5 and SS-15 sample locations within Turney Creek. The gauges were installed on posts securely driven into the substrate. Following the collection of groundwater samples, pressure transducers were installed in four temporary piezometers in the Site wetlands and adjacent to staff gauge locations in Turney Creek for continuous recording of water-level fluctuations between June 14 and June 26, 2003. Results of the continuous gauging illustrate the lack of tidal flux from Turney Creek to the wetlands. Within Turney Creek, tidal fluctuation ranged between three and four feet. Within the wetlands, the impact from the tidal flux was only observed in TW-5 following a peak storm event as illustrated on the attached graph.

Summary

Based upon the evidence collected to date, impacts of Parcel 2 groundwater discharge to Turney Creek and the Parcel wetlands does not appear to be significant. The primary COC in groundwater beneath Parcels 1 and 2 was 1,1-Dichloroethene. 1,1-Dichloroethene was not detected in the Parcel 2 wetland groundwater nor was it detected in the surface water samples collected from the wetlands and Turney Creek. Rather, the primary COCs within the Parcel 2 wetlands are inorganics and SVOCs related to residual sediment contamination resulting from the historic discharge from Handy & Harman's former WWTP. Operation of the on-Site wastewater treatment plant ceased in 1996 following the connection to the town sewer. Based upon the above surface water, groundwater and sediment sampling results and closure of the facility, the presence of elevated metal concentrations in the wetland groundwater above SWPC is more likely due to residual affects from historic discharges related to operation of the on-Site wastewater treatment plant, rather than current discharge of Site groundwater.

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

Page 9

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?"

X 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):

Groundwater monitoring will continue on both Parcels 1 and 2 as required by the RSRs (post remediation monitoring associated with the on-going Parcel 1 soil remediation program 22a-133-3(g)). Following completion of Parcel 1 demolition and soil remediation in late 2005, post remediation quarterly groundwater monitoring will commence once replacement wells are installed on Parcel 1 and will continue for two years or until the requirements of the CTDEP and RSRs are fulfilled. While the exact number of Parcel 1 replacement wells is dependent on yet unknown development plans, sufficient wells will be installed to characterize both the horizontal and vertical extent of impacts and migration. Groundwater samples collected from Parcel 1 and Parcel 2 monitoring wells and surface water collected from Turney Creek will be analyzed for VOCs, SVOCs CTETPH, metals and natural attenuation parameters. Additionally, an ecological risk assessment, as required by the RSRs and RCRA Corrective Action, will be conducted as part of the continuing assessment of impacts to Parcel 2 wetlands and surface water as stipulated in open Consent Order # WC 4790. Following completion of Parcel 2 assessment activities, a Remedial Action Plan will be prepared.

Migration of Contaminated Groundwater Under Control
Environmental Indicator (EI) RCRIS code (CA750)

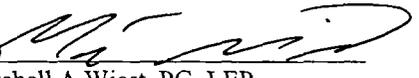
Page 10

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 - 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 facility, EPA ID # CTD018656819, located at 1770 Kings Highway, Fairfield, CT. 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.

Completed by (signature) 
(print) Mitchell A Wiest, PG, LEP
(title) Principal Hydrogeologist / Project Manager

Date 9/26/05

Accepted by
 9/28/05
David Lim
EPA Region 1

Locations where References may be found:
Attached data tables;
Attached figures;
Attached graphs;
Attached ECAF;
Attached 2002 Receptor Survey; and
Supporting data and reports have been submitted to the CTDEP and the City of Fairfield Conservation Department

Contact telephone and e-mail numbers
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