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 General Motors Baltimore Assembly Plant
Facility Address: 2122 Broening Highway, Baltimore, MD 21224
Facility EPA ID #: MDD003091972

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).

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):

BACKGROUND

In February 2006, Duke Baltimore LLC entered into a Facility Lead Agreement with U.S. EPA Region III that applies to the entire assembly plant complex. Subsequent to entering into the Facility Lead Agreement, the decision was made, with U.S. EPA and Maryland Department of the Environment (MDE) consent, to assess the Facility under RCRA Corrective Action and Maryland's Voluntary Cleanup Program (VCP) as four separate sites corresponding to Duke's redevelopment areas (i.e., Areas A, B, C and D). The Facility and the redevelopment areas are shown on the attached Figure 1.

A RCRA Facility Investigation and Focused Corrective Measures Study has been completed for each of the Redevelopment Areas (see references below). The purpose of the RFIs was to identify any potentially significant releases to the environment at the Facility. Although the Site is located within an area where groundwater is not used for potable use, concentrations of chemicals of potential concern (COPCs) in groundwater were screened against drinking water criteria. For each COPC, the lower value between the Region III Tap Water RBC (April 11, 2006) or the Maximum Contaminant Level (MCL) was selected as the screening criterion for groundwater. Groundwater RBCs based on a non-cancer endpoint were adjusted to reflect a target HQ of 0.1 prior to comparison to site concentration data.

RESULTS

Area A

Six volatile organic compounds (VOCs) were each detected at a maximum concentration above its respective potable use screening level. Most of the VOCs were detected in water samples taken from perched water in the area of the former tank pits. Specifically, the maximum detected concentration of benzene (440 ug/L) and methyl tert-butyl ether (MTBE) (7 ug/L) at sampling location 9I1, and the maximum detected concentration of toluene (590 ug/L) and total xylenes (760 ug/L) were collected at sampling location 9H1. Finally, the maximum detected concentration of chloroform (1 ug/L) and 1,2-dichloroethane (6 ug/L) were detected at sampling locations 9F6 and 9F3, respectively. Two semivolatile organic compounds (SVOCs), dibenzofuran (2 ug/L) and naphthalene (34 ug/L) were each detected at maximum concentrations above their respective potable use screening levels at sampling location 9I1. One inorganic constituent (i.e., manganese (1,180 ug/L)) was detected at a maximum concentration exceeding its potable use screening level at sampling location 9A3. Two inorganic constituents were detected at a concentration exceeding their respective potable use screening levels at sampling location 9B2 (i.e., arsenic (14.8 ug/L) and thallium (5.3 ug/L)). Two inorganic constituents were detected in samples collected from monitoring wells (i.e., cadmium and mercury). Cadmium was detected at a concentration of 1.98 ug/L at monitoring well location HMW-6, slightly exceeding its potable use screening level of 1.8 ug/L. Finally, the maximum detected

concentration of mercury (0.712 ug/L) detected at HMW-4 exceeds the Tap Water RBC of 0.37 ug/L for methylmercury and the U.S. EPA indoor-air screening criterion of 0.68 ug/L for elemental mercury. In general, COPCs detected in groundwater at Area A are not present at concentrations that are indicative to a significant release to groundwater.

Area B

Seventeen chemicals were detected at concentrations above their respective Region III Tap Water RBCs, including antimony, arsenic, benzene, benzo(a)anthracene, bis(2-ethylhexyl)phthalate, tert- butylbenzene, chlorobenzene, chromium, cobalt, dibenzofuran, manganese, 2-methylnaphthalene, naphthalene, nickel, selenium, 1,1,2-trichloroethane, and vanadium. In addition, the maximum concentrations of isopropylbenzene, tetrachloroethene, and trichloroethene each exceeded both their respective Region III Tap Water RBC and draft U.S. EPA groundwater-to-indoor air screening criterion. Lead was also detected at a concentration above the potable use screening value based on the action level for lead at the tap. In general, the detected exceedences of groundwater screening criteria are spatially dispersed and are not indicative of a single significant release.

Area C

VOC contamination in groundwater has been documented near the former UST farm (REC C-1-3) and to the east and southeast of the former tank farm. The sources of this plume are believed to be from a release from two purge recovery USTs west of the former Weld Destruct Building (REC C-1-13), from historical releases from the former UST farm, and possibly from releases from the former Fisher Body tank farm area (C-2-4) (Hull, 2006). Sixty-two analytes detected in groundwater were identified as COPCs with respect to the screening criteria. COPCs identified in groundwater samples collected from Area C included VOCs, polynuclear aromatic hydrocarbons (PAHs) and metals. A tabular summary of the groundwater screening is attached as Table 1.

Area D

Nine analytes detected in groundwater were identified as COPCs with respect to the screening criteria. The maximum detected concentrations of benzene (18.1 ug/L), 1,2-dichloroethane (1.67 ug/L), benzo(a)pyrene (0.1 ug/L), and benzo(b)fluoranthene (0.17 ug/L) at monitoring well sampling location MW-27D exceed their respective Tap Water RBCs of 0.34 ug/L, 0.12 ug/L, 0.0092 ug/L, and 0.092 ug/L. In addition, the concentration of 2-methylnaphthalene (9 ug/L) and naphthalene (47 ug/L) at sampling location 8B3 exceed their respective Tap Water RBCs of 2.4 ug/L. and 0.65 ug/L. Finally, the concentration of arsenic at sampling location HSBD4 (1.03 ug/L), the concentration of barium at sampling location 8B3 (1,490 ug/L), and the concentration of manganese at sampling location 8A1 (2,770 ug/L) exceed their respective Tap Water RBCs of 0.045 ug/L, 730 ug/L, and 73 ug/L. In general, COPCs detected in groundwater at Area D are not present at concentrations that are indicative to a significant release to groundwater.

REFERENCES

Hull & Associates, Inc. 2007a. RCRA Facility Investigation / Phase II Environmental Site Assessment and Corrective Measures Study (Revision 1.0) of Area B – Former American Standard Property Former General Motors Corporation Baltimore Assembly Plant. March 2007.

Hull & Associates, Inc. 2007b. RCRA Facility Investigation / Phase II Environmental Site Assessment and Focused Corrective Measures Study (Revision 1.0) of Area A – Anchor Motor Freight Property Former General Motors Corporation Baltimore Assembly Plant. April 2007.

Hull & Associates, Inc. 2007c. Response Action Plan for Area A – Former General Motors Corporation Baltimore Assembly Plant. April 2007.

Hull & Associates,, Inc. 2007d. RCRA Facility Investigation /Phase II Environmental Site Assessment Of Area C – Former General Motors Corporation Baltimore Assembly Plant. June 2007.

Hull & Associates, Inc. 2007e. RCRA Facility Investigation/Phase II Environmental Site Assessment of Area D – Former Fort Holabird Former General Motors Corporation Baltimore Assembly Plant. July 2007.

Hull & Associates, Inc. 2007f. Revised Response Action Plan Revision 1.0 for Area B – Former General Motors Corporation Baltimore Assembly Plant. July 2007.

Hull & Associates, Inc. 2008. Revised Response Action Plan Revision 1.0 for Area C – Former General Motors Corporation Baltimore Assembly Plant. February 2008.

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).

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):
VOC-impacted groundwater within the shallow uppermost water-bearing zone is focused in and around the former UST farm and Weld Destruct Building in Redevelopment Area C. The highest total concentrations were detected in monitoring wells MW-3 and MW-14S, with the exception of MTBE around MW-25S. The concentrations in these high zones decrease rapidly over relatively short distances, such that concentrations in nearby wells are between 0 and 10 ug/L total VOCs. This distribution is consistent with relatively shallow groundwater gradients within this portion of the plume and the overall flow direction to the east. This distribution is also similar to historical data provided by GM, with the exception of the MTBE concentrations in MW-25S. Historical data for this location indicate very low detections of MTBE in 1998 (18 ug/L), 2000 (12 ug/L) and 2002 (3.4 ug/L – estimated). The concentration did increase in 2005 (14,000 ug/L), but the 2006 RFI sampling results are anomalously high (211,000 ug/L). Given that MTBE was detected at very low concentrations or not detected at all at the closest down-gradient wells GMW-102 (<0.518 ug/L), MW-4 (1.34 ug/L) and MW-23S (0.518 ug/L) additional groundwater monitoring data from MW-25S and nearby wells are required to evaluate the MW-25S results. The BTEX and MTBE distribution is very similar to the total VOC distribution. Chlorinated VOCs are limited to the central portion of the overall total VOC distribution and represent a small percentage of the total VOCs detected. The areal extent of the total VOC distribution is slightly larger than the BTEX and MTBE distribution. This larger areal extent is due primarily to additional petroleum-related VOCs in wells located outside of the central plume (e.g., trimethylbenzene compounds in MW-22S and propylbenzene compounds in GMW-101).

Based on the contaminant distribution observed in the shallow wells, the plume is not migrating appreciable distances from the central zone near the former UST farm and Weld Destruct Building. Furthermore, based on the similarity of the October 2006 distribution to that indicated by GM's historical data, the overall plume footprint is generally stable.

Impacted groundwater within the deeper zone is similar to that in the shallow zone in that both are focused in and around the former UST farm and Weld Destruct Building. The highest total concentrations were detected in monitoring well MW-28D. The high concentrations within the central portion of the plume decrease considerably with distance, although this decrease is not as dramatic as that observed in the shallow water-bearing zone. The total VOC distribution is consistent with groundwater flow in the deeper zone and is similar to historical data provided by GM.

The BTEX and MTBE distribution is similar to the total VOC distribution, with the highest concentrations focused near the former UST farm and Weld Destruct Building. Chlorinated VOCs are also prevalent near the former UST farm and Weld Destruct Building, but the highest concentrations were detected in MW-11D located south of the Weld Destruct Building. Overall, the BTEX and MTBE distribution and the chlorinated VOC distribution together are very similar to the areal extent of the total VOC distribution. The total VOC areal extent is slightly larger than the combined BTEX and MTBE / chlorinated VOCs extent. The larger areal extent is due primarily to 2-butanone detected in MW-20D (100 ug/L). The distribution of chlorinated VOCs within the deeper zone is similar to that observed in historical data provided by GM and indicates that chlorinated VOCs, primarily 1,1-dichloroethene (4,080 ug/L), 1,1-dichloroethane (202 ug/L) and trichloroethene (105 ug/L) in MW-11D, may potentially migrate beyond the southern property boundary due to southern groundwater flow direction observed in the deeper zone within this portion of the site. However, the property immediately south of the Site (i.e., Point Breeze) maintains a groundwater use restriction due to chlorinated VOC contamination originating on that property which is significantly greater than potential contributions from the former GM site (e.g., TCE detected at 36,000 ug/L and vinyl chloride detected at 12,000 ug/L within the Point Breeze plume). Some plume migration is also observed to the east, as shown by minor detections in monitoring well MW-27D. Based on the similarity of the October 2006 distribution to that indicated by GM's historical data, the overall plume footprint is generally stable.

REFERENCES

See references under Item 2 above.

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[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.

4. Does "contaminated" groundwater **discharge** into **surface water** bodies?

__X__ 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):
No surface water bodies exist at the Facility. The closest body of water is Colgate Creek, a tidally-influenced tributary of the Patapsco River located approximately 200 feet southeast of the Facility's East Employee Parking Lot (i.e., Development Area D). Groundwater in the deep water-bearing zone underlying the eastern portion of the Facility flows east, towards Colgate Creek with an average gradient of 0.0024 feet/foot (Hull, 2007d). For the preliminary evaluation of potential groundwater impacts to surface water, it was assumed that groundwater in the Patapsco aquifer underlying the Facility discharges to Colgate Creek.

5. Is the **discharge** of "contaminated" groundwater into surface water likely to be **"insignificant"** (i.e., the maximum concentration[3] 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)?

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___X__ If yes - skip to #7 (and enter "YE" status code in #8 if #7 = yes), after documenting: 1) the maximum known or reasonably suspected concentration[3] 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 concentration[3] 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[3] 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):
A comparison of the maximum detected concentration of each chemical detected in the closest upgradient monitoring wells (located in redevelopment Area D, which is approximately 200 ft. upgradient of the Creek) to screening criteria based on the migration of COPCs in groundwater to surface water is presented in the risk assessment for Area D. The State of Maryland numeric surface water quality criteria for the protection of aquatic life and human recreational users, where available, were selected as the appropriate level for the evaluation of the concentrations of chemicals detected in the nearest up-gradient well. As surface water standard(s) are not available for several chemicals detected in groundwater in Area D (i.e., acetone, carbon disulfide, isopropylbenzene (cumene), methyl tert-butyl ether, total xylenes, acenaphthylene, benzo(g,h,i)perylene, caprolactam, 2-methylnaphthalene, naphthalene, phenanthrene, arsenic, barium, cobalt, copper, and manganese), the evaluation of these concentrations was based on alternative screening values (e.g., Tap Water RBCs) or surface water standards for surrogate chemicals. The screening levels for acetone, carbon disulfide, methyl tert-butyl ether, total xylenes, caprolactam, and cobalt are based on the Region III Tap Water RBC for each chemical. The surface water criterion for the protection of human health for anthracene was selected as a surrogate standard for the evaluation of 2-methylnaphthalene, naphthalene, and phenanthrene concentrations. The acute and chronic surface water criteria for freshwater aquatic life for naphthalene was obtained from Quality Criteria for Water, referred to as "The Gold Book" (U.S. EPA, 1986). The surface water criteria for benzene, acenaphthene, and pyrene were selected as a surrogate standards for the evaluation of isopropylbenzene (cumene), acenaphthylene, and benzo(g,h,i)perylene concentrations, respectively. The surface water criteria for arsenic, barium, and copper are based on the consumption of aquatic life and drinking water, as

criteria for the consumption of aquatic life only are not available. Finally, the surface water criterion for manganese was obtained from the National Recommended Water Quality Criteria (U.S. EPA, 2006b).

Three chemicals were each detected in groundwater at Area D at a concentration above its surface water screening criterion. The maximum concentration of lead at sampling location 8B2 (2.7 ug/L), manganese at 8A1 (2,770 ug/L), and the maximum concentration of selenium at 8B1 (5.2 ug/L) exceed their single or most conservative screening criteria of 2.5 ug/L, 100 ug/L, and 5 ug/L, respectively. However, none of the chemicals was retained as a COPC, as discussed below.

Lead was detected slightly above the single surface water screening criterion of 2.5 ug/L (based on chronic exposure to aquatic life) in only one groundwater sample (sampling location 8B2 at a concentration of 2.7 ug/L). The reported datum at sampling location 8B2 was an estimated concentration (i.e., J-qualified), indicating that lead was positively detected but at a concentration below the reporting limit for the sample. The maximum detected non-qualified lead concentration is below the chronic exposure to aquatic life screening criterion at sampling location MW27D (1.69 ug/L). Based on the estimated concentration of lead slightly above the surface water screening criterion and the general immobility of lead in the subsurface, it is reasonably anticipated that the lead concentration is at or below the surface water screening criterion prior to potential discharge of groundwater containing lead to Colgate Creek.

The elevated manganese concentrations detected in Area D groundwater are consistent with regional manganese concentrations in groundwater in the Patapsco and Patuxent formations (collectively included in the Potomac Group) in the Baltimore City area. A search of water quality data maintained by United States Geological Survey (USGS) indicates manganese has been detected in the Patapsco and Patuxent aquifers at several sampling locations in Baltimore City at concentrations ranging from 50 ug/L to 17,000 ug/L. The manganese concentrations detected in groundwater in Area D range from 501 ug/L to 2,770 ug/L, which is significantly below the maximum concentration detected in the Potomac Group Aquifers as reported by USGS. Therefore, groundwater manganese concentrations will not be further evaluated with respect to potential migration to surface water.

Selenium was detected in only one of the nine groundwater samples collected in Area D and the detected concentration of selenium in the single sample only slightly exceeds the screening criterion based on a chronic exposure of aquatic life to selenium in surface water. Given that the maximum concentration of detected selenium is approximately four times less than the surface water concentration based on acute exposures of aquatic life (20 ug/L) and approximately 800 times less than the human health based surface water standard based on consumption of aquatic life (4,200 ug/L), it is highly unlikely that selenium will impact surface water. It may be reasonably expected that the selenium in groundwater at Area D will attenuate to a concentration below even the most conservative of the screening criteria prior to potential discharge of groundwater containing selenium to Colgate Creek.

REFERENCES

U.S. Environmental Protection Agency [U.S. EPA]. (1986) Quality Criteria for Water, referred to as "The Gold Book". Office of Water, Environmental Protection, Regulation and Standards. Washington, DC. May 1, 1986.

U.S. Environmental Protection Agency [U.S. EPA]. (2006). Region III Risk-Based Concentration Tables. Jennifer Hubbard, Region III Toxicologist.

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

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 implemented[4])?

____ 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):

NA

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[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.

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):
USEPA and the Maryland Department of the Environment have approved an ongoing groundwater monitoring program outlined in the Revised Response Action Plan for Area C (Revision 1.0). The monitoring program includes quarterly sampling of a significant number of wells to support the groundwater evaluation presented in the Area C RFI/Phase II and ensure that groundwater conditions remain protective.

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).

__**X**__ 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 # **MDD003091972**, located at **2122 Browning Highway, Baltimore, MD 21224**. 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) - signed-	Date: 1/7/10
	(Print) Denis M. Zielinski	
	(Title) Senior RPM	

Supervisor	(Signature) - signed-	Date:1/14/10
	(Print) Luis Pizarro	
	(Title) Chief, Office of Remediation	
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Locations where References may be found:

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