DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION

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

Facility Name: **Carbone of America Industries – The Benzinger Site (Formerly Stackpole Carbon)**
Facility Address: **1032 Trout Run Road, St. Mary's, Elk County, Pennsylvania 15857**
Facility EPA ID #: **PAD000739631**

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).

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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):

General Facility Information:

The Benzinger Site occupies approximately 56-acres and is located near the intersection of Brusselles Street (State Route 120) and Trout Run Road within the eastern city limits of the City of St. Mary's in Elk County, Pennsylvania. Site operations date back to 1902 when the property was owned by the Pennsylvania Fireproofing Company, a manufacturer of clay pipes. In 1940, the property was purchased by Stackpole Corporation, now known as The Hall Corporation (Hall), and used to manufacture carbon and carbon graphite products. Subsequent to 1990, the contiguous track of land that comprised the Benzinger Site was subdivided by Hall into a number of parcels, one of which is the 36.8-acre Carbon Graphite Plant. Carbone of America Corporation (Carbone) purchased the Carbon Graphite Plant from Hall in November 1991 and continues to manufacture carbon and carbon graphite products. To the north of the Carbon Graphite Plant is the 6.7-acre Cycle Mix Landfill Lot and the adjoining 2.5-acre Parking Area Lot, both of which were transferred from Hall to Carbone in September 2009. The remaining parcels of land have been sold to various third parties.

On July 7, 2005, Hall submitted a Notice of Intent to Remediate (NIR) for the Benzinger Site, in accordance with the provisions of the Pennsylvania Land Recycling and Environmental Remediation Standards Act (Act 2). For the purposes of applying Act 2 Chapter 250, Sections 250.302(a) and 250.407(a) to the Benzinger Site, the "property boundary" is the hydraulically downgradient boundary of the entire tract of land owned by Hall in November 1990 at the time the contamination within the Carbon Graphite Plant was discovered. In December 2007, Hall submitted a "Combined Remedial Investigation Report/Final Report" to the Pennsylvania Department of Environmental Protection (PADEP) for approval and a release of liability for the remediation of contamination identified at the Benzinger Site.

Groundwater Contamination:

During the period from October 1990 through January 2005, a total of 140 groundwater monitoring wells, piezometers, and well points were installed at the Benzinger Site. As of March 2006, seven of the wells had been removed or destroyed as a result of construction activities at the Carbon Graphite Plant. Of the 133 that remained, 71 wells are located within the Carbon Graphite Plant, 29 wells are on the Cycle Mix Landfill Lot and the Parking Area Lot, 22 wells are located on other parcels (mainly downgradient areas), 4 well points are located within the wetland area, and 7 wells are at off-property locations. VOCs, particularly TCE, 1,2-DCA and, to a lesser extent, 1,2-DCE, were identified as the primary constituents of concern. Two groundwater systems have been identified at the Benzinger Site: the Upper Semi-Confined Groundwater System (USCGS or Upper System) and the Lower Semi-Confined Groundwater System (LSCGS or Lower System).

Wells and piezometers within the USCGS are within the uppermost bedrock and weather rock zone and range from 9 to 27 feet deep. Groundwater flow within the USCGS is to the north/northwest to Elk Creek, which is the recipient of discharge from the Upper System. By this relationship, Elk Creek acts as a barrier, limiting the extent of the VOC plume in the USCGS. The small wetland area to the south of Elk Creek (west/northwest of the Cycle Mix Landfill) is also interpreted to receive shallow groundwater discharge. The LSCGS exists within the more competent bedrock underlying the Upper System. Flow within the LSCGS is to the north/northwest and is thought to be influenced by Elk Creek, which is the primary drainage feature in the area. The flow direction in the Lower System may also be influenced by the geologic structure beneath the area, by which the rock strata dip at about 2 to 3 degrees to the northwest. Wells monitoring the Lower System are assigned letter designations D, E, F, and G (e.g., GM-4D, GM-4E, GM-4F, GM-4G), indicating progressively greater depths.

-Upper Semi-Confined Groundwater System:
VOCs: Based on water-quality data collected from 2000 through 2004, the primary VOCs detected in the USCGS above PADEPs used-aquifer MSCs are TCE, 1,2-DCA, and 1,2-DCE. TCE and 1,2-DCA contamination are related to past chlorinated solvent use, particularly within the impregnation area of the Carbon Graphite Plant, and 1,2-DCE is a degradation product of TCE. These VOCs exist within a defined plume that originates in the impregnation area and extents about 1,300 feet north/northwest toward Elk Creek and the small wetland area. Other VOCs, such as methylene chloride, vinyl chloride, 1,1,1-TCA, and 1,1,2-TCA, have also been detected sporadically and at concentrations exceeding PADEPs used-aquifer MSCs; however, these VOCs are secondary contaminants compared to TCE, 1,2-DCA and 1,2-DCE, and are not definable plumes.

Throughout the main body of the VOC plume, TCE and 1,2-DCA substantially exceed their PADEP used-aquifer MSC of 5 µg/L. Concentrations of TCE in the immediate vicinity of the impregnation area commonly exceed 1,000 µg/L, and in some cases 10,000 µg/L. In the downgradient direction, TCE concentrations in the USCGS decrease to typically less than 1,000 µg/L near the northern boundary of the Carbon Graphite Plant. Near Elk Creek, TCE concentrations in the Upper System range from non-detect to 25 µg/L in most wells, with higher concentrations at GM-19 (up to 1,000 µg/L) and well points WP-2 and WP-3 (up to 1,300 µg/L and 380 µg/L, respectively). The cause of the higher VOC concentrations observed at the wetland wellpoints is interpreted to be upwelling of groundwater from the D aquifer horizon.

Metals: Cadmium, lead, beryllium, and nickel were detected at concentrations exceeding PADEPs used-aquifer MSCs in the USCGS. Cadmium was detected at concentrations ranging from 7 µg/L to 42 µg/L, which exceeds PADEPs used-aquifer MSC of 5 µg/L, in one sample collected from monitoring wells MW-2, MW-3, MW-5S, MW-8, MW-9, GSC-2, and GSC-4S. However, cadmium analyses of one or more additional samples collected from 5 of the above referenced wells reported either non-detectable cadmium or concentrations below the PADEP used-aquifer MSC. Lead, which also has a used-aquifer MSC of 5 µg/L, was detected in the USCGS at concentrations ranging from 6.8 µg/L to 14 µg/L in monitoring wells GSC-6, GSC-9, GSC-12, and GM-22, and at a concentration of 77 µg/L in monitoring well GSC-13 and at 160 µg/L in monitoring well GSC-2. Beryllium was detected in monitoring wells GSC-2, GM-8, and GM-22 from 4.4 µg/L to 10 µg/L, exceeding its PADEP used-aquifer MSC of 4 µg/L. Nickel, which has a used-aquifer MSC of 100 µg/L, was detected at concentrations ranging from 110 µg/L to 310 µg/L in samples collected from monitoring wells GSC-2, GSC-4S, GSC-5, GSC-7, GSC-11, GSC-13, and GM-21.

-Lower Semi-Confined Groundwater System:
VOCs: The primary VOCs detected in the LSCGS are TCE and 1,2-DCA, with the plume originating in the impregnation area. 1,2-DCE is also detected in some wells, but the detections tended to be sporadic, commonly preceded and followed by non-detects. The TCE component of the plume extends about 2,200 feet to the northwest, near Brusselles Street. The 1,2-DCA component of the plume extends about 2,550 feet to the northwest, several hundred feet beyond Brusselles Street. Beneath and downgradient of the impregnation area, within the boundaries of the Carbon Graphite Plant, TCE is generally the dominant VOC. Concentrations of TCE detected since 2000 beneath the impregnation area (at MW-5D) have ranged from 3,100 µg/L to 50,000 µg/L. Further downgradient, along the southern side of Elk Creek and the small wetland, TCE concentrations typically range from a few tens to several hundred µg/L, with the higher values (up to 1,300 µg/L) reported at the GM-21D well. Within this downgradient area of the plume, 1,2-DCA values are typically less than 100 µg/L and consistently less than 200 µg/L. Further downgradient, near Brussells Street, 1,2-DCA is the dominant VOC, with detections ranging from 5 µg/L to 19 µg/L at monitoring wells GM-29E and GM-30E. At the furthest downgradient monitoring wells (GM-33 D&E), located about 400 feet downgradient of the properly boundary, no VOCs were detected in GM-33D, and only 1,2-DCA was detected in GM-33E at 3 µg/L, below the PADEP used-aquifer MSC of 5 µg/L.

Metals: Beryllium and cadmium were detected at concentrations exceeding PADEPs used-aquifer MSCs in the LSCGS. Beryllium was detected at 12 µg/L in GM-5D, 5 µg/L in GM-22E, and 8.6 µg/L in GM-23E, exceeding its PADEP used-aquifer MSC of 4 µg/L. However, a second sample from monitoring wells GM-22E and GM-23E showed beryllium below its MSC. Cadmium was detected slightly above its PADEP used-aquifer MSC of 5 µg/L in monitoring wells GM-13D and OB-1D at 5.6 µg/L.

References:

(1) Combined Remedial Investigation Report/Final Report, The Benzinger Site, Revised December 2007.
(2) Final Environmental Indicator Inspection Report for Carbone of America Industries, January 2003.

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).

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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):

-Upper Semi-Confined Groundwater System:

With regard to the lateral movement of VOCs and metals in the USCGS, the information (i.e., ground-water elevation contours, hydraulic-head relationships between the USCGS and Elk Creek, and the absence of VOC detections in the Upper System on the opposite side of Elk Creek) presented in the "Combined Remedial Investigation Report/Final Repot" for the Benzinger Site, indicates that groundwater from the USCGS discharges to Elk Creek, which acts as a hydraulic barrier to plume migration. Therefore, migration of contaminated groundwater in the USCGS has stabilized and is expected to remain within the previously defined plume that originates in the impregnation area and extents about 1,300 feet north/northwest toward Elk Creek and the small wetland area.

-Lower Semi-Confined Groundwater System:

In the LSCGS, analytical data from past sampling events do not indicate substantive impacts to groundwater quality by Site-related metals, for which the results were typically below detection or below PADEPs MSCs. Whereas, VOCs (i.e., TCE, 1,2-DCA, and, to a lesser extent 1,2-DCE) were reported at concentrations exceeding PADEP used-aquifer MSCs in a number of the monitoring wells screened into the Lower System beneath the Site. At the downgradient property boundary (monitoring well clusters GM-29 D&E, GM-30 D&E near Brussels Street), 1,2-DCA exceeded its use-aquifer MSC (5 µg/L), with detected concentrations ranging from 5 µg/L to 19 µg/L in the E-series wells. Further downgradient, at the GM-33 D&E well cluster located about 400 feet from the downgradient property boundary, no VOCs were detected in the GM-33D well and only 1,2-DCA was detected in the GM-33E well at a concentration of 3 µg/L, below PADEPs used-aquifer MSC.

Based on groundwater flow patterns and the water-quality data collected from the GM-33 D&E wells, the limit of the 1,2-DCA plume (i.e., the point at which concentrations in the plume are less than the used-aquifer MSC) is less than 400 feet beyond the downgradient property boundary. Losses of VOCs in the Lower System result from natural attenuation and dilution with flow distance. Fate and Transport Analysis estimated that 1,2-DCA would reach concentrations below the used-aquifer MSC of 5 µg/L over a flow distance of about 350 feet downgradient from the GM-29 and GM-30 well clusters. Groundwater quality data from the GM-33 D&E wells are consistent with the predictions of the Fate and Transport Analysis. Therefore, based on the information presented in the "Combined Remedial Investigation Report/Final Repot" for the Benzinger Site, migration of contaminated groundwater in the LSCGS has stabilized and is expected to remain within the previously defined plume that originates in the impregnation area and extends about 2,550 (1,2-DCA portion of plume) feet to the northwest, several hundred feet beyond Brusselles Street.

References:

(1) Combined Remedial Investigation Report/Final Report, The Benzinger Site, Revised December 2007.

[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.

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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):
Contaminated groundwater at the Benzinger Site in the Upper Semi-Confined Groundwater System has been determined to discharge to Elk Creek, which acts as a hydraulic barrier to migration of contaminated groundwater. The small wetland at the Benzinger Site also receives groundwater discharge from the upwelling of groundwater from the D aquifer horizon in the Lower Semi-Confined Groundwater System into the Upper System beneath the wetland, and then into the wetland. In addition, three groundwater seepage areas have been identified at the Benzinger Site; seepage at the SW-5 location (immediately south of Elk Creek toward Trout Run Road), seepage at the SW-6 location (near storm-water catchment CB-7A and west of Building 55), and seepage in the area to the north of Building 157. Seepage at the SW-5 location discharges directly to Elk Creek. Seepage at the SW-6 location is collected by the seep-collection system, such that water containing VOCs no longer enters the storm-water collection/conveyance system. Instead, water collected by the seep-collection system is routed to the St. Mary's publicly owned treatment works (POTW) for treatment. Seepage in the area of Building 157 is directed into an earthen drainage ditch.

References:
(1) Combined Remedial Investigation Report/Final Report, The Benzinger Site, Revised December 2007.

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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):

In accordance with PADEP Act 2 guidance, the Pennsylvania Toxics Single Discharge (PENTOXSD) Model was used to evaluate the potential for the discharge of shallow groundwater containing VOCs to cause exceedences of Pennsylvania Chapter 93 surface-water quality criteria in Elk Creek. The PENTOXSD Model considers the volume of groundwater discharging to the stream, in conjunction with characteristics of the stream (i.e., flow, width, depth, slope) to calculate the maximum VOC concentration that can be present in the discharging groundwater and not cause the Chapter 93 surface-water criteria to be exceeded in the stream. The maximum VOC concentration calculated by PENTOXSD is referred to as the Waste-Load Allocation (WLA). If the concentration of the parameter being evaluated in the groundwater is less than the WLA, compliance with the Chapter 93 standard has been met.

For the primary VOCs (TCE, 1,2-DCA, 1,2-DCE) detected at the Benzinger Site in groundwater from shallow monitoring wells and a well point (WP-2) adjacent to Elk Creek, a flow-weighted concentration was calculated. VOC data from the SW-5 seepage along Elk Creek were also used in the calculation. The flow-weighted concentration was then compared to the model-calculated WLA. By this comparison, none of the VOCs present in groundwater discharging to Elk Creek are predicted to cause in-stream concentrations exceeding their respective Chapter 93 criteria protective of aquatic life and human health.

References:

(1) Combined Remedial Investigation Report/Final Report, The Benzinger Site, Revised December 2007.

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

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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):

[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.

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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):

As part of the Benzinger Site's Post-Remediation Care Plan, groundwater monitoring will be conducted annually and will include sampling of selected monitoring wells in the Upper and Lower Semi-Confined Groundwater Systems, with samples being analyzed for VOCs. Specific monitoring wells to be sampled include the following:

Upper-System Wells Adjacent to Elk Creek: GM-3, GM-17, GM-18, GM-19, GM-20, GM-21, GM-22, GM-27, and WP-2.

Lower-System Wells Near the Downgradient Property Boundary: GM-29D, GM-29E, GM-30D, and GM-30E

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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 Carbone of America Industries – The Benzinger Site facility, EPA ID No. PAD000739631, located at 1032 Trout Run Road, St. Mary's, Pennsylvania 15857. 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 if 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) _____ Date 10/12/2010
(print) Jeanna R. Henry
(title) Remedial Project Manager

Supervisor (signature) _____ Date 10/19/2010
(print) Paul Gotthold
(title) Associate Director
Office of Pennsylvania Remediation
EPA Region 3

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