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February 15, 2019

Mr. Erich Weissbart  
Remedial Project Manager  
US EPA Region III, 3LC20  
701 Mapes Road  
Fort Meade, MD 20755

Ms. Barbara Brown  
Project Coordinator  
Maryland Department of the Environment  
1800 Washington Blvd.  
Baltimore, MD 21230

**Re:    *MULTIMEDIA CONSENT DECREE JFM-97-558 & JFM-97-559***  
      *ANNUAL REPORT CALENDAR YEAR 2018*

Dear Mr. Weissbart and Ms. Brown:

On behalf of Sparrows Point LLC, enclosed please find the Multimedia Consent Decree Annual Report for 2018. This report provides information and activity progress for 2017 that was accomplished by Sparrows Point LLC, pursuant to Sections VI, XII, and XVIII of the Multimedia Consent Decree.

Please contact me at (314) 620-3056 should questions arise during your review of the enclosed annual report.

Sincerely,

A handwritten signature in black ink that reads "James Calenda". The script is fluid and cursive.

James Calenda  
Senior Project Manager  
Enviro Analytics Group

Enclosure

# Multimedia Consent Decree 2018 Annual Report

**Prepared for:**

**U S Environmental Protection Agency  
Maryland Department of the Environment**

**Prepared for:**

**Sparrows Point, LLC  
1600 Sparrows Point Boulevard  
Baltimore, MD 21219**

**February 2019**



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## 1.0 Introduction

The Multimedia Consent Decree (Decree), originally entered into by Bethlehem Steel Corporation (BSC), the U.S. Environmental Protection Agency Region III (EPA) and Maryland Department of the Environment (MDE), defines specific actions required at the Sparrows Point site “Site” located in Baltimore County, Maryland. The Decree became effective on October 8, 1997 (Civil Action JFM-97-558 and JFM-97-559). The Site was purchased by Sparrows Point LLC on September 14<sup>th</sup>, 2012. A stipulated order implementing modifications to the Decree and transferring the Decree to Sparrows Point LLC was executed on July 28, 2014 (Stipulated Order). A subsequent sale of the real property to Sparrows Point Terminal, LLC was completed on September 18, 2014 subject to the provisions of a purchase and sale agreement wherein Sparrows Point LLC remains responsible for the obligations arising under the Consent Decree. Sparrows Point Terminal, LLC is not a party to the Decree.

Environmental actions for the Site are now being implemented pursuant to the following:

- The Stipulated Order for the Decree entered into by Sparrows Point LLC and the respective agencies effective July 28, 2014;
- Administrative Consent Order (ACO) between Sparrows Point Terminal, LLC and the Maryland Department of the Environment (effective September 12, 2014);
- Settlement Agreement and Covenant Not to Sue (SA) between Sparrows Point Terminal, LLC and the United States Environmental Protection Agency (effective November 25, 2014).

The original Decree for the Sparrows Point Site dealt with many issues associated with iron-making, steel-making, coking, byproduct, plating, and finishing operations. As these operations are no longer conducted, and the associated facilities no longer exist, many specific requirements of the Decree are no longer applicable and have been removed in accordance with the stipulated order implementing modifications to the Decree. In addition, the ACO and SA incorporate relevant ongoing aspects of the Decree by reference.

Specific actions outlined in the Decree include requirements for annual reporting of information and activity progress. This report provides information and activity progress for 2018 that was accomplished by Sparrows Point LLC. There are three sections in the Decree that require annual reporting of information;

Section VI	Paragraph 4	Waste Minimization Plan,
Section XII	Paragraph 5	Notification and Certification of Documents,
Section XVIII	Paragraph 2	Civil Penalties and Pollution Prevention Credits.

Section VI, Paragraph 4, (Waste Minimization Plan), requires a report on the previous year’s status of implementing each Work Plan required under Section VI including sampling data related to hazardous waste regulatory determinations.

Section XII, Paragraph 5, Notification and Certification of Documents, requires a progress report on actions completed as required in Sections V (Corrective Measures Work) and VII (Compliance Requirements) of the Decree.

Annual reports of actual pollution prevention expenditures during the previous calendar year for pollution prevention projects described in Section VI are also required by Section XVIII, Paragraph 2, Civil Penalties and Pollution Prevention Credits.

This Annual Report provides information on actions undertaken in 2018 that comply with the requirements of these three paragraphs. Section 2.0 provides the status on the Waste Minimization Plan required in Section VI of the Decree and includes project cost information for the plan as required in Section XVIII. Sections 3.0 and 4.0 provide progress reports as required in Sections V (Corrective Measures) and Section VII (Compliance Requirements) respectively. Section 5.0 presents other supporting information required in Section XII including spill release reporting and changes to the overall management structure utilized by Sparrows Point LLC to implement the Decree.

## 2.0 Waste Minimization Plan

As outlined in the Modified Order, obligations associated with Section VI (Waste Minimization Plan) are no longer required with the exception of Section VI, Paragraph 1.b.6 related to maintenance dredging of the Tin Mill Canal. Information associated with this obligation is as follows:

### **Maintenance Dredging of the Tin Mill Canal**

#### **Description of 2018 Activity:**

The Maintenance Cleanup Plan for the Tin Mill Canal was implemented at the beginning of 2018. Approximately 5,400 linear feet of the canal has been dredged and capped as of December 31, 2018. Once complete, the Decree obligation associated with maintenance dredging will no longer be relevant or required.

**2018 Expenditures:** \$7,741,033.23

### 3.0 Corrective Measures

Paragraph 5 of Section XII of the Decree requires a description of the work undertaken in Sections V (Corrective Measures) and VII (Compliance Requirements) of the Decree. This section provides a status report for corrective measures projects included in Section V of the Decree as follows:

- Rod & Wire Mill Sludge Bin Remediation Area
- Coke Oven Area Interim Measure
- Site Wide Investigation

#### Rod & Wire Mill Sludge Bin Remediation Area

Tasks were completed for the Interim Measure at the former Rod & Wire Mill Sludge Bin Storage Area at Sparrows Point during 2018.

After the completion of remediation trenches in 2017, several new groundwater wells were installed in the RWM to facilitate monitoring of the groundwater conditions in the shallow and intermediate zones. Following installation of the remediation trenches, the groundwater wells in the RWM were sampled on a routine schedule to help assess groundwater flow directions and groundwater quality in the shallow and intermediate zones. During 2018 the groundwater monitoring wells were sampled quarterly.

Two semi-annual progress reports were prepared for the Rod and Wire Mill Interim Measures for Groundwater Remediation at the Tradepoint Atlantic property by ARM Group (ARM) (August 2018 & February 2019). These reports present a brief history of the Rod and Wire Mill Area (RWM), a description of historical interim remedial measures that operated at the RWM, a description of additional remedial work that was completed in 2016 and 2017 to provide soil and groundwater treatment in the RWM area, the resulting changes observed in groundwater flow patterns and contaminant distribution, and an evaluation of the effectiveness of the remedial measures.

#### Shallow Groundwater Zone

A synoptic round of groundwater level measurements was collected on December 17, 2018. Based on the calculated groundwater elevations, groundwater in the shallow zone appears to flow radially from a mounded high point located at well RW18-MW(S), in the northeastern portion of the Site. In the central, west, and southwest portions of the Site, groundwater generally appears to flow to the south, southwest or west.

For the purposes of evaluating trends in groundwater, shallow zone wells have been categorized into three groups. The “perimeter” wells are generally located farthest to west (downgradient). These wells consist of RW01-MW(S), RW02-MW(S), RW03-MW(S), RW04-MW(S), RW05-MW(S), RW06R-MW(S), RW07-MW(S), and RW08-MW(S). The “interior” shallow wells are located in the central portion of the

site. These wells consist of RW09-MW(S), RW11-MW(S), RW12-MW(S), RW14-MW(S), RW15-MW(S), RW16-MW(S), and RW18-MW(S). RW19-MW(S) is designated as the “upgradient” well since it is located farthest upgradient.

Measurements of pH collected in December 2018 show that most pH values in the shallow zone exhibited an increase during the October 2018 sampling event followed by a decrease in the December 2018 sampling event. During the December 2018 sampling event, the lowest pH was measured in well RW03-MW(S) in the southwest portion of the site at a value of 5.6. The highest pH was measured at RW16-MW(S) in the north-central portion of the site at 11.5, as this well often has the highest pH in the shallow zone.

Results for perimeter shallow zone wells showed that total cadmium increased or stayed relatively the same during the October 2018 and December 2018 sampling events. During the December 2018 sampling event, concentrations of cadmium in perimeter shallow wells were below the relevant surface water criterion of 8.8 µg/L, except for RW06R-MW(S) (23.2 µg/L). Cadmium was not detected in RW04-MW(S) and RW05-MW(S). Since February 2017, cadmium concentrations in perimeter wells generally seem to be remaining stable or decreasing over time. The only exception was the concentration in RW03-MW(S) during the December 2018 event, which was anomalously high.

Results for interior shallow zone wells showed that total cadmium increased in some wells, decreased in some wells, and stayed relatively the same in some wells during the October 2018 and December 2018 sampling events. Well RW14-MW(S) continues to have the highest levels of cadmium in the shallow zone (3,710 µg/L during the December 2018 sampling event), with a concentration that was three orders of magnitude greater than the concentration in the majority of shallow zone wells. The second highest concentration (significantly lower, but relatively elevated compared to other shallow zone wells) was nearby at RW15-MW(S) (96.8 µg/L during the December 2018 sampling event).

The total cadmium concentration in upgradient shallow zone well RW19-MW(S) increased during the October 2018 sampling event, then decreased during the December 2018 sampling event. This well is exhibiting an overall decrease in cadmium concentration over time since February 2017.

Results for perimeter shallow zone wells showed that total zinc decreased or stayed relatively the same during the October 2018 and December 2018 sampling events. The only exception was the concentration in RW02-MW(S) during the December 2018 event, which exhibited an increase to an unusually high concentration. During the December 2018 sampling event, concentrations of zinc in perimeter shallow wells were well below the relevant surface water criterion of 81 µg/L in wells RW04-MW(S) (38 µg/L) and RW05-MW(S) (6.4 µg/L).

Results for interior shallow zone wells showed that well RW14-MW(S) has the highest levels of zinc in the shallow zone, detected at 78,800 µg/L during the December 2018 sampling event. The lowest concentration in shallow interior wells during the December 2018 sampling event was detected in RW16-MW(S) at a concentration of 10.8 µg/L.



The total zinc concentration in upgradient shallow zone well RW19-MW(S) slightly increased during the October 2018 sampling event, then decreased during the December 2018 sampling event. There is no predominant trend in zinc concentration in this well since the beginning of post-trench monitoring in February 2017.

### **Intermediate Groundwater Zone**

A synoptic round of groundwater level measurements was collected on December 17, 2018. Based on the calculated groundwater elevations, groundwater in the intermediate zone appears to flow radially from a mounded high point located at well RW16-MW(I) in the northeast/central portion of the Site. In the west and southwest portions of the Site, groundwater generally appears to flow to the west or southwest.

For the purposes of evaluating trends in groundwater, intermediate zone wells have been categorized into three groups based on their location. The “perimeter” wells are generally located farthest to west. These wells consist of RW01-MW(I), RW02-MW(I), RW03-MW(I), RW05-MW(I), RW06-MW(I), RW07-MW(I), RW08-MW(I), and RW22-MW(I). The “performance” wells are located in the central portion of the site. These wells consist of RW09-MW(I), RW11-MW(I), RW12-MW(I), RW13-MW(I), RW15-MW(I), RW16-MW(I), and RW18-MW(I). RW19-MW(I) is designated as the upgradient well.

Measurements of pH collected in December 2018 show that most pH values in the intermediate zone exhibited an increase during the October 2018 sampling event followed by a slight decrease in the December 2018 sampling event. During the December 2018 sampling event, the lowest pH was measured in well RW22-MW(I) at a value of 4.6. The highest pH was measured at RW13-MW(I) at a value of 11.6.

During the December 2018 sampling event, concentrations of cadmium in perimeter intermediate wells were below the relevant surface water criterion of 8.8 µg/L in wells RW05-MW(I) (1.6 µg/L), RW08-MW(I) (not detected) and RW22-MW(I) (not detected). The highest cadmium concentration in perimeter wells in both the October 2018 sampling event and the December 2018 sampling event was detected in well RW06-MW(I), which increased in each of the last two events. Prior to these two events, the highest cadmium concentration in perimeter wells was typically measured in RW03-MW(I), which also continued to increase in the past two events. Well RW07-MW(I) also exhibited an increase in the December 2018 sample event.

The highest cadmium concentration in performance intermediate wells is typically found at RW12-MW(I), which had been gradually decreasing up until the December 2018 sampling event, or RW13-MW(I), which exhibits extreme fluctuations. Well RW12-MW(I) had the highest level of cadmium in the intermediate performance wells in December 2018, but that concentration was still lower than in March 2017. Both are located in the central portion of the Site. RW16-MW(I) was the only intermediate performance well in which cadmium was not detected. Despite increases in a few wells during the December 2018 sampling event, cadmium concentrations in the performance wells have been gradually decreasing overall since the beginning of post-trench monitoring in February 2017.

The total cadmium concentration in upgradient intermediate zone well RW19-MW(I) increased during the October 2018 sampling event and the December 2018 sampling event. Despite these increases, this well is exhibiting an overall decrease in cadmium concentration over time from the beginning of post-trench monitoring in February 2017. Other than some extreme fluctuations in RW13-MW(I), RW19-MW(I) typically has the highest cadmium concentration in the whole intermediate zone. During the December 2018 sampling event, zinc concentrations in the perimeter intermediate wells were below the relevant surface water criterion of 81 µg/L in RW08-MW(I) (44.3 µg/L) and above the relevant concentration in the other wells. The highest zinc concentration in perimeter wells in the December 2018 sampling event was measured in well RW06-MW(I), at a concentration of 99,800 µg/L. This well exhibited increases in both the October 2018 sampling event and the December 2018 sampling event. Historically, the highest concentration of zinc in intermediate perimeter wells is typically measured in RW22-MW(I). The lowest concentration of zinc was measured in well RW05-MW(I) during the October 2018 sampling event and in well RW08-MW(I) during the December 2018 sampling event (RW08-MW(I) has historically had the lowest concentrations of zinc in intermediate perimeter wells). Since the beginning of post-trench monitoring in February 2017, zinc concentrations in intermediate perimeter wells overall have stayed relatively the same or increased.

Results for performance intermediate zone wells showed that total zinc has decreased substantially since March 2017 in the three wells with the highest initial concentrations (RW18-MW(I), RW11-MW(I), and RW12-MW(I)). Well RW18-MW(I) had the highest level of zinc in the intermediate performance wells, as has typically been the case since the beginning of post-trench monitoring in February 2017. During the October 2018 sampling event and the December 2018 sampling event, RW16-MW(I) had the lowest zinc concentration of intermediate performance wells. The lowest concentration has typically been measured at this well or at RW15-MW(I). Since the beginning of post-trench monitoring in February 2017, zinc concentrations in performance wells overall have generally stayed the same or decreased.

The total zinc concentration in upgradient intermediate zone well RW19-MW(I) increased during the October 2018 sampling event and the December 2018 sampling event. As such, this well has exhibited an overall increase in zinc concentration over time from the beginning of post-trench monitoring in February 2017. RW19-MW(I) typically has the highest zinc concentration in the whole intermediate zone.

## Coke Oven Area Interim Measures

Interim measures (IMs) have been developed to address identified environmental conditions at the Coke Oven Area (COA) Special Study Area in accordance with the United States Environmental Protection Agency's (US EPA)'s September 2, 2010 letter. The following designations identify the operating IM "Cells" at the COA:

- Cell 1: Air Sparge/Soil Vapor Extraction (AS/SVE) System in the Former Benzol Processing Area,
- Cell 2: Air Sparge/Soil Vapor Extraction (AS/SVE) System in the shallow groundwater zone, groundwater pump and treat (GW P&T) system in the intermediate zone, Former Coal Basin Area,
- Cell 3: AS/SVE System in "Cove" Area,
- Cell 5: Dual Phase Extraction (DPE) system for the shallow zone, "Turning Basin" side of former Coke Oven Area,
- Cell 5: Dense Non-Aqueous Phase Liquid (DNAPL) Recovery
- Cell 6: Light Non-Aqueous Phase Liquid (LNAPL) Recovery at the Former Benzol Processing Area.

As of the end of 2018, Cells 1, 2, 3, 5 and 6 remediation systems are operational.

### CELL 1

The AS/SVE system in the Former Benzol Processing Area (Cell 1) operated from January 9<sup>th</sup> through the end of the year, removing an estimated 1,076 pounds of hydrocarbons. The system did not operate from February 5<sup>th</sup> to April 11<sup>th</sup> due to various maintenance issues. The concentrations of total VOCs in groundwater at the two monitoring wells that are located within or downgradient of the Cell 1 boundary exhibit overall downward trends in concentration since the restart of system operation on April 5, 2017.

### CELL 2

Cell 2 includes an AS/SVE system for the shallow zone groundwater and a GWPT system for the intermediate zone groundwater in the Former Coal Basin Area of the site. The AS/SVE system operated for about two months combined in 2018. The system was turned off temporarily in April due to yielding extremely low concentrations in recovered vapors. The continued operation of this unit will be evaluated in 2019 and requests made to modify the work effort should it be determined to be technically appropriate. The GWPT system operated for the majority of the time from January through the end of June, resulting in the removal of approximately 2,712 pounds of hydrocarbons from the Cell 2 area. Since 2014, total VOC concentrations in shallow zone groundwater have generally remained the same or decreased slightly. Total VOC concentrations in intermediate zone groundwater had decreased by more than 50% for the two wells with the highest total VOC concentrations, but exhibited slight increases during the third and fourth quarters of 2018 likely due to the concurrent downtime of the system. The total VOC concentrations at all other intermediate zone wells have exhibited overall decreases since 2014 and were relatively stable throughout 2018.

**CELL 3**

The AS/SVE system in the “Cove” Area (Cell 3) operated for approximately 4,904 hours in 2018, removing an estimated 151 pounds of hydrocarbons. The system operated from January 9<sup>th</sup> to September 7<sup>th</sup>, until it was turned off temporarily due to yielding extremely low concentrations in the recovered vapors. The continued operation of this unit will be evaluated in 2019 and requests made to modify the work effort should it be determined to be technically appropriate. The concentrations of volatile hydrocarbons in the groundwater have decreased slightly over the past few years, and current concentrations at the monitoring wells are similar to or slightly lower than concentrations observed when the remedial AS/SVE system was started in June 2011.

**CELL 5**

Cell 5 includes a dual-phase extraction (DPE) system and a Dense Non-Aqueous Phase Liquid (DNAPL) recovery system for the shallow zone groundwater in the “Turning Basin” side of the former Coke Oven Area. These systems were operated for the majority of the year, resulting in the removal of approximately 3,762 pounds of hydrocarbons from the Cell 5 area. Since 2014, total VOC concentrations in some shallow zone monitoring wells have demonstrated decreases, while others have fluctuated but overall have demonstrated little change from initial concentrations.

**CELL 6**

Cell 6 consists of an LNAPL Multi-Phase Extraction (MPE) monitoring and recovery system at the Former Benzol Processing Area, along with some manual bailing and skimming. The extraction system and manual bailing removed an estimated 11,000 pounds of LNAPL during 2018, with a cumulative removal amount of approximately 146,882 pounds since LNAPL recovery was initiated in Cell 6 in July 2010 (the MPE system began operation in October 2016). When comparing the average NAPL thicknesses in extraction wells from the fourth quarter 2017 to fourth quarter 2018, NAPL thicknesses exhibited overall decreases in the Cell 6 source area.

**SUMMARY**

The IMs at the former CO area were operated during 2018 generally in accordance with the operating plans. Based on the estimated hydrocarbon removal amounts from the remedial activities at Cells 1, 2, 3, 5, and 6, a total of approximately 18,700 pounds of hydrocarbons were removed from this area in 2018.

Based on the results of monitoring data collected at the CO during 2018, it is recommended that the frequency of groundwater monitoring be reduced from quarterly sample collection to semi-annual sample collection. Further recommendations will be developed in 2019 associated with the Cell 2 AS/SVE system, the Cell 3 AS/SVE system and the Cell 5 DPE system. Consideration should be given to improving these three systems or utilizing alternate approaches as necessary to remediate groundwater. Continued use of the systems or alternate remediation approaches will be evaluated during 2019

depending on long-term groundwater quality requirements to be defined for the CO in 2019. While the MPE system in Cell 6 is continuing to remove LNAPL from the subsurface with reasonable efficiency, potential upgrades to the system will be evaluated in 2019.

Additional vertical and horizontal delineation in Cells 2, 3 and 5 is proposed in the Former Coke Oven Area Interim Measures Supplemental Investigation Work Plan (ARM, January 2019) to determine if modifications to the existing systems are warranted. New temporary piezometers will be installed in these cells in strategic locations to further delineate the extent of impacts in the subsurface, while offshore pore water samples will be analyzed to delineate the extent of impacts in offshore sediment.

## Site Wide Investigation

Environmental responses, including Consent Decree obligations for Site Wide Investigation, for the Site are being implemented pursuant to the following:

- Multimedia Consent Decree between Bethlehem Steel Corporation, the United States Environmental Protection Agency, and the Maryland Department of the Environment (effective October 8, 1997); this Consent Decree has been modified in accordance with a stipulated order entered into by Sparrows Point LLC and the respective agencies effective July 28, 2014
- Administrative Consent Order (ACO) between Sparrows Point Terminal, LLC and the Maryland Department of the Environment (effective September 12, 2014);
- Settlement Agreement and Covenant Not to Sue (SA) between Sparrows Point Terminal, LLC and the United States Environmental Protection Agency (effective November 25, 2014).

Regulatory obligations for investigation, remediation, pathway exclusion, and closure of applicable areas of the Site are addressed within the ACO and EPA Agreement. As described within the ACO, Phase II investigations will be conducted and Work Plans will be developed for Site. Regulatory obligations and closure will be conducted in accordance with the terms of the Regulatory Agreements, which include obtaining a Certificate of Completion under MDE's Voluntary Cleanup Program and an EPA Certificate of Completeness after the BSC Consent Decree Areas proceed through RCRA's Statement of Basis process upon which a Final Decision and Response to Documents is rendered.

Certain portions of the Site have been defined as Area A and have been designated for investigation, remediation, and/or development on a priority basis as defined in the ACO. To delineate Area A in accordance with the ACO, Sparrows Point Terminal, LLC (now Tradepoint Atlantic) submitted a VCP application for Area A on September 10, 2014.

Work plans to investigate the site were initiated in 2018 and submitted for approval in accordance with the requirements and schedule outlined in the ACO and SA. Phase II work plans and Response and Development Plans were submitted in 2018 for the following parcels and areas:

- Parcel A-2 Request for No Further Action (NFA) letter
- Parcel A-2 Phase II Investigation Report (Rev4)
- Parcel A-6 Phase II Investigation Work Plan (Rev0)
- Parcel A-7 Phase II Investigation Report (Rev0)
- Sub-Parcel A8-1 Response and Development Work Plan (Rev0)
- Sub-Parcel A8-1 Response and Development Work Plan Addendum
- Parcel A-10 Phase II Investigation Report (Rev0)
- Sub-Parcel A11-1 Response and Development Work Plan (Rev0, Rev1, & Rev2)
- Parcel B-2 Phase II Investigation Report (Rev0, Rev1, & Rev2)

- Sub-Parcel B2-1 Response and Development Work Plan (Rev0, Rev1, & Rev2)
- Sub-Parcel B2-2 Response and Development Work Plan (Rev0)
- Parcel B-3 Phase II Investigation Report (Rev0)
- Sub-Parcel B4-1 Development Completion Report (Rev0)
- Sub-Parcel B5-1 Response and Development Work Plan Addendum (Rev1, Rev2, & Rev3)
- Parcel B-5 Phase II Investigation Report (Rev1 & Rev2)
- Sub-Parcel B6-2 Response and Development Work Plan (Rev1 & Rev2)
- Parcel B-6 Phase II Investigation Report (Rev2)
- Parcel B-7 Phase II Investigation Work Plan (Rev1)
- Parcel B-8 Phase II Investigation Report (Rev1)
- Parcel B-14 Phase II Investigation Report (Rev0)
- Parcel B-17 Phase II Investigation Report (Rev0)
- Parcel B-18 Phase II Investigation Work Plan Addendum (Rev1 & Rev2)
- Parcel B-19 Phase II Investigation Report (Rev0)
- Parcel B-21 Phase II Investigation Work Plan (Rev0 & Rev1)
- Parcel B-23 Phase II Investigation Work Plan (Rev0)

## 4.0 Compliance Requirements

As outlined in the Modified Order, obligations associated with Section VII (Compliance Requirements) are no longer required with the exception of Section VII.C. related to compliance requirements for the operation of Coke Point and Greys Landfill. Information associated with this obligation is as follows:

### **Coke Point and Greys Landfill Operation**

Activities conducted in 2018 for the landfills were as follows:

#### **Coke Point Landfill**

The Coke Point Landfill is currently not being utilized for the management of non-hazardous waste materials. Waste materials have not been received at this landfill since the change in ownership from RG Steel Sparrows Point LLC to Sparrows Point LLC in 2012. The plan for Coke Point Landfill is to continue to use the facility for slag storage and tenant scrap metal recycling and iron bearing material recovery operations.

#### **Control of Landfill Access and Activities**

Access control berms and a gate access structure are installed at Coke Point Landfill to mark the boundaries of the landfill and to prevent unauthorized access. Access control berms were upgraded in 2013 and placed around the perimeter of the landfill and are of sufficient height and grade to prevent vehicular access. The access control structures are being maintained as part of the current compliance actions for the landfill.

Specific measures are being conducted to prevent unauthorized waste disposal at the landfill and include the following:

- Coke Point Landfill is located within the Sparrows Point site which currently has access control restricted to owners of the facility, demolition and scrap management operations and tenant operations. Access control includes security personnel at three operating gates to the facility and routine perimeter security patrols and inspections. Entities that have access to the site have been informed of the status of Coke Point Landfill and the restriction on future waste placement.

#### **Groundwater Monitoring Program**

Groundwater monitoring was conducted at Coke Point Landfill in 2018 in accordance with a request received from the Maryland Department of the Environment on December 3, 2012. Semi-annual sampling events were completed in the 2<sup>nd</sup> and 4<sup>th</sup> quarters of 2018. A semi-annual groundwater monitoring report providing data analysis and results consistent with normal practices of the Department for landfill groundwater compliance monitoring programs will be submitted in 2019.

The reports include summaries of the following data collection activities:



- water level measurements in monitoring wells;
- sampling of monitoring wells; and
- laboratory analysis of monitoring well samples.

### **Greys Landfill**

The landfill continues to operate in accordance with the approved landfill operations and engineering plan. The current systems are being maintained at the landfill; maintenance activities completed in 2018 included the following:

- Vegetation and tree growth has been removed as necessary within swales, the sediment basin and other control features at the landfill;
- Maintenance of haul roads;
- The soil stockpile area has been graded and seeded;
- As-built plans for the sediment control basin have been reviewed to document that adequacy of the current performance of the sediment control basin.

### **Groundwater Monitoring Program**

Groundwater monitoring was conducted at Greys Landfill in 2018 in accordance with a request received from the Maryland Department of the Environment on December 3, 2012. Semi-annual sampling events were completed in the 2<sup>nd</sup> and 4<sup>th</sup> quarters of 2018. A semi-annual groundwater monitoring report providing data analysis and results consistent with normal practices of the Department for landfill groundwater compliance monitoring programs will be submitted in 2019.

The reports include summaries of the following data collection activities:

- water level measurements in monitoring wells;
- sampling of monitoring wells; and
- laboratory analysis of monitoring well samples.

## 5.0 Decree Management Reporting

### Project Management

The US EPA and MDE were informed of the ownership change of the facility from Sparrows Point LLC to TradePoint Atlantic (formerly Sparrows Point Terminal, LLC) on September 18, 2014. As noted previously, ongoing obligations of the Consent Decree remained with Sparrows Point LLC as part of the purchase and sale contract between Sparrows Point LLC and TradePoint Atlantic.

Notification to the U. S. Environmental Protection Agency and the Maryland Department of the Environment is hereby provided that the Project Coordinator responsible for the referenced Consent Decree is:

Mr. Russell Becker,  
Sparrows Point, LLC  
1650 Des Peres Road, Suite 306  
St. Louis, MO 63131  
Phone: (314) 686-5611

e-mail: [rbecker@enviroanalyticsgroup.com](mailto:rbecker@enviroanalyticsgroup.com)

Communications between or among the parties, and documents, reports, approvals and other correspondence concerning the activities performed pursuant to the terms and conditions of the Consent Decree shall be directed to Mr. Becker. Copies of all documents to be submitted to Sparrows Point, LLC shall be sent to the Project Coordinator.

### Release Reporting

Non-aqueous phase liquid was identified in groundwater wells installed as part of the Phase II Investigations for parcels A-3, A-8, A-10, B-5, B6, B-8, B-13, B-14, B-18, and B-22. The presence of this liquid was reported to the agencies in 2018 and monitoring programs are underway. There were no other releases, including spills or other events that occurred at the Facility in 2018 that were required to be reported to the Agencies.