



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

FEB 9 2010

Russell Becker
Program Manager
Environmental Engineering & Affairs
Severstal Sparrows Point
1430 Sparrows Point Blvd
Sparrows Point, MD 21219

Subject: Consent Decree, Civil Action Numbers JFM-97-558 and JFM-97-559
Work Plan Sediment, Surface Water, and Groundwater Sampling Plan to Assess
Current Groundwater Discharge Impacts to the Offshore Environment

Dear Mr. Becker:

Pursuant to Section XIII, SUBMISSION REQUIRING EPA AND/OR MDE APPROVAL, of the above-referenced Consent Decree (CD) and in response to your October 13, 2009 Work Plan submission (Work Plan), the United States Environmental Protection Agency (EPA) and the Maryland Department of the Environment (MDE), hereby disapprove, in part, the Work Plan, entitled "*Sediment, Surface Water, and Groundwater Sampling Plan to Assess Current Groundwater Discharge Impacts to the Offshore Environment,*" submitted by Severstal on October 13, 2009, and require Severstal to modify the submission. The bathymetric survey Severstal proposed in Attachment A to its Work Plan, and further described in paragraph # 4 of the Attachment to this letter, is approved with the specified conditions indicated in the enclosed Attachment.

The proposed work fails to meet the scope of work defined in Attachment B, Section 4(b) of the CD. First, the work proposed must not be limited to an evaluation of the current groundwater discharge impacts to offshore environment; rather, it must address current and past releases from groundwater, surface water, storm water, sediment transport and other environmental pathways. Second, the geographical boundaries of work proposed should not be limited to the Coke Point peninsula, but must also include the entire Sparrows Point shore line surrounding the steel mill, including the shipyard portion. Please review paragraph 4 on page 1 of Attachment B where it describes the scope of the investigation as requiring the identification and evaluation of "all releases" at or from the facility.

As required by Section XIII, of the CD, Severstal must resubmit the appropriately renamed Modified Work Plan within sixty (60) calendar days of receipt of this letter to adequately cover the scope of work defined in Attachments B, Section 4(b) of the CD. Severstal's revised Work Plan must address the specific deficiencies identified in the Attachment to this letter. If you have technical questions regarding this matter, please contact Andrew Fan, EPA Region III Project Coordinator at (215) 814-3426. For legal questions, please have your attorney contact Susan Hodges, Senior Assistant Regional Counsel, at (215) 814-2643.

Sincerely,


Abraham Ferdas, Director
Land and Chemicals Division

cc: Barbara Brown, MDE Project Coordinator
Mathew Zimmerman, MD Assistant Attorney General
Jeffrey Sands, Senior Attorney USDOJ
Susan Hodges, ORC
Andrew Fan, Project Coordinator

Encl. (Attachment)

ATTACHMENT
OUTLINE OF SAMPLING FOR OFFSITE ECOLOGICAL ASSESSMENT

The offshore sediment, surface water and porewater sampling plan for the Severstal Sparrows Point facility should be based on the items identified below. The facility must then present a comprehensive sampling proposal in a Work Plan, including an assessment of the supporting information forming the basis of the sampling plan. The Plan must also include the entire offshore perimeter of the Shipyard.

A. Work Plan Supporting Information

1. Perimeter well screening for the entire property perimeter.

Screen groundwater monitoring well results near the entire property shoreline against the EPA Region III BTAG marine surface water benchmarks, or comparable values for chemicals without BTAG benchmarks. The groundwater chemicals exceeding surface water benchmarks will be included in the COPC list for the sediment/surface water/pore water sampling plan.

Groundwater discharge zones should be taken into account for placement of the sampling locations.

2. Evaluate all on-site, near shore areas of the entire facility for surface COPCs which could have been entrained in uncontrolled or discharge point storm water releases to adjacent surface water. These identified chemicals will also be included in the COPC list for the sediment/surface water/pore water sampling plan. Bias offshore sampling locations to likely storm water discharge points on the shoreline.

3. Evaluate the results from the Maryland Port Administration's Site Assessment for the Proposed Coke Point Dredged Material Containment Facility at Sparrows Point, dated November 2009. Extensive offshore investigation was completed for the Coke Point area, which may prove entirely adequate based on the other information listed here, or the area may need some additional investigation based on this other information.

4. Performance of a bathymetric survey (as described in Attachment A of the October 2009 Severstal Sediment, Surface Water, and Groundwater Sampling Plan to Assess Current Groundwater Discharge Impacts to the Offshore Environment Work Plan) must be modified to cover the entire facility perimeter. The survey results must be used to characterize offshore water depths and bottom structure. Media sampling locations should be selected to encompass all types of benthic habitat available.

B. Work Plan Proposed Sampling

1. For the purposes of an ecological risk assessment, the sampling emphasis is on surficial sediment samples (0 to -6 inches). Aquatic sediment is permanent benthic habitat for organisms with very little mobility, and is the base of the aquatic food chain. Sampling locations should be really representative, as well as appropriately biased toward known or suspected sources. Adequate characterization (number of samples to represent a given area) is necessary for informed decision-making. Transects can initially be limited, with iterative follow-up sampling to define the horizontal extent of contamination if needed. Subsurface sediment samples are

important only to define the vertical limits of contamination or to determine if subsurface NAPL is present that will serve as a continuing source of contamination to the surficial sediments.

2. The total number of surface water samples can be less than the total number of surficial sediment samples, also taking into account any previous surface water data that has been collected. The broad trends of surface water contamination are important to establish.

3. Sediment pore water samples are particularly important for VOCs, since groundwater VOCs discharging into surface waters are frequently at their highest concentrations in the pore water, followed by the surface water column. The sediment pore water also represents the most direct exposure to benthic organisms. The total number of pore water samples should be fewer than the total number of surficial sediment samples, and it is not necessary to analyze pore water for all COPCs. While it is true that in situ samplers are difficult to install in high energy environments like Coke Point, the in situ samplers are highly preferable. If possible, it is also helpful to use comparative temperature measurements to establish that the pore water represents groundwater discharge.