



CHESAPEAKE BAY FOUNDATION
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February 25, 2015

VIA ELECTRONIC MAIL
AND FIRST CLASS MAIL

Charles B. Howland
Sr. Asst. Regional Counsel
United States Environmental Protection Agency
Region III
1650 Arch St.
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**RE: Split Sample Data and Analysis from Round 1 Phase I Offshore Investigation
Comments on Planned Approach for Risk Assessment and the Conduct of Round 2
Sampling**

Docket No.: CERC/RCRA-03-2014-0279PP

Charlie
Dear Mr. Howland:

As promised, the Chesapeake Bay Foundation, Inc. (CBF) is providing a copy of all data generated from the co-located sediment samples collected by EA Engineering, Science, and Technology, Inc., (EA) for CBF on October 13-14, 2014 from the Phase I Area of the Sparrows Point Offshore Investigation. The data are contained in the attached report titled "2014 Toxicity Testing of Baltimore Harbor Sediments" prepared by Lance Yonkos, Ph. D. of the University of Maryland.

We have also attached a Technical Memorandum prepared by Charles Menzie, Ph.D., et al., with comments on the planned approach to assess risks to human health and the environment and the additional Round 2 sampling for the Phase I Area of the Sparrows Point Offshore Investigation.

The findings of these experts underscore CBF's concerns regarding the contamination in sediments and waters adjacent to the former steel mill site. Specifically, whether the extent of the contamination will be adequately characterized, and what risks it poses to human health and the environment.

Dr. Yonkos performed toxicity testing of the split samples obtained on CBF's behalf and married these results with the chemical analyses conducted and reported by EA in their Technical Memorandum dated January 14, 2015. He found that metals concentrations correlated with sediment toxicity, with higher concentrations occurring generally in the more southerly sites where toxicity was greatest. Yonkos at 5. However, Dr. Yonkos also found that meaningful comparison of Polyaromatic

Hydrocarbon (PAH) concentrations between stations was difficult due to high and variable reporting limits in the chemical analysis, and that setting values for nondetected analytes at zero likely produced a significant under-estimation when determining Total PAH values. *Id.*; *see also* Menzie, et al., at 2-3, ¶ 8. Regarding the extent of the contamination, he found that significant spatial gaps exist between sites with substantial toxicity and those with minimal toxicity. Dr. Yonkos recommends that additional investigation should be conducted to fully characterize the extent of surface sediment toxicity in the region.

Dr. Menzie makes a related recommendation regarding additional toxicity testing in order to delineate the risk zone associated with releases of contaminants from Sparrows Point. Menzie at 4, ¶ 1. In addition to comments regarding technical aspects of the human and ecological risk assessment methods and the additional Phase I Offshore Investigation sampling, Dr. Menzie notes that there are differences in the risk assessment assumptions used by EA for the earlier risk assessment they conducted for the Maryland Port Administration at Coke Point and what is currently proposed. CBF shares this concern.

In conclusion, we thank you again for the opportunity to conduct the split sampling. We hope that these expert analyses and recommendations are useful and will further inform the investigation and future remediation of contaminants in the waters and sediments adjacent to the Sparrows Point property. Should you have any questions about these comments and documents we would welcome the opportunity to discuss them with you.

Sincerely,



Paul W. Smail
Staff Litigation Attorney

Encl.

cc (via electronic mail):

Luis Pizarro
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