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FISC WILLIAMSBURG  
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LETTER AND THE U S EPA REGION III COMMENTS ON THE SOIL SAMPLE COLLECTION  
SAMPLING AND ANALYSIS PLAN ADDENDUM FOR AREA OF CONCERN 6 (AOC6)  
PENNIMAN AOC WASTE SLAG MATERIAL SUBAREA WILLIAMSBURG FISC VA  
4/30/2012  
U S EPA REGION III



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

April 30, 2012

Mr. Scott Park  
NAVFAC MIDLANT, Building N-26, Room 3208  
Attention: Code OPHE3, Mr. Scott Park  
9742 Maryland Avenue  
Norfolk, VA 23511-3095

Subject: Comments on the AOC 6 – Penniman AOC, Waste Slag Material Subarea

Mr. Park:

Thank you for the opportunity to review the subject document. EPA would like to provide the following comments at this time.

EPA ESC General Comment: The document is inconsistent with the naming conventions used in 40CFR . A sampling and analysis plan (SAP) is defined as being both a quality assurance project plan (QAPP) and a field sampling plan (FSP) combined. A QAPP can reference other documents. A FSP must be stand alone - as it could well be the only document with the sampling team in the field. This document references the original QAPP repeatedly, as in SAP Worksheet #11 (Original QAPP -**Worksheet #12, Worksheet #28, Worksheet #36, Worksheet #37...and others**) while technically an acceptable practice; as a practical matter it makes this document impossible to review. For future iterations of this document, please include all the named worksheets as an appendix, or include the original QAPP.

**Major Concerns:**

EPA ESC Comment 1: [**General**] a) The document refers to “TAL” to describe what inorganic analytes the project is concerned with. It is assumed by the reviewer that TAL is from the Superfund contract abbreviation for Target Analyte List. This particular plan seems to also have its own subset of SW-846 metals; so the TAL abbreviation is not sufficient to define the analytes needed for this sampling event. If you wish to use the Superfund Contract Laboratory Program (CLP) protocols, please refer to the specific contract which has the parameters needed for this event. For example, CLP contract SOW 5.4 specifies the analyte suite and other method parameters needed. Alternatively, the text can identify SAP Worksheet #15-1 as identifying the TAL list for this project.

b) The data validation protocol is referenced to a second document. The validation should address 100% of data generated and be consistent with those specified in the documents <sup>↑</sup>Region III Modifications to the Laboratory Data Validation Functional Guidelines for Evaluating Inorganics Analysis, <sup>↑</sup>April 1993. Validation should be performed by an independent third party, and the third party validators should be named prior to sampling. All data packet and electronic tapes should be accessible to the EPA upon request. Please state the validation level, personnel, their affiliations, and Data Validation guidance documents to be used in validation.

EPA ESC Comment 2: [**SAP Worksheet #11, page 30**] The use of four data quality levels as referenced has been superseded. Currently there are two levels:

- i) definitive data, and
- ii) screening data

The requirement should state that all definitive data submitted to EPA Region 3, must have a full <sup>↑</sup>CLP like <sup>↑</sup>deliverable package.

EPA ESC Comment 3: [**SAP Worksheet #1, page 29**] This section states that having an accredited laboratory ensures the quality of the analytical results. Accreditation does not establish anything about the quality of the current analysis being performed. The quality of the analysis is demonstrated by the individual sample delivery group's (SDG) adherence to the QC protocols; and the documentation for that SDG which supports the Precision, Accuracy, Representativeness, Completeness parameters, performance on evaluation samples, and audits. As this project references SW-846, the quality of the data necessary for this site's environmental decision will be determined by the quality control parameters used in the analysis. As <sup>↑</sup>Test

Methods for Evaluating Solid Waste, <sup>↑</sup>SW-846 is a guidance document; all analytical parameters have to be specified when using this document; which is what establishes the quality of the analytical results. Parameters which need to be specified include; the specific analytes, (including their CAS numbers,) their required detection limits, the calibration precision requirements, the percentage deviation and the matrix spike matrix spike duplicate, the extraction or workup method...the entire analytical suite needs to be defined when utilizing most methods in SW-846.

EPA ESC Comment 4: [**SAP Worksheet #10 page 28**] More detail is needed in this section. Particular emphasis needs to be placed on the decision threshold. The sampling event has delineated its objectives as:

- i. “Confirm whether a release of inorganic constituents from the waste slag pile has occurred.”
- ii. “Determine if further investigation, remedial/removal action, or control mechanism are warranted.”

There needs to be a numerical threshold concentration set for every analyte in this study as it pertains to the above objectives. The statement needs to be framed like: “A release will be assumed to be present if any of the constituents have a determined value above the Region 3 RSLs” or “...above background as established by the USGS”, or “...above the values in Table X as established by our toxicologist.” The second question also needs threshold values established with a numerically grounded format. These thresholds can then be used to determine the applicability of the proposed analytical methods and the ability to achieve the necessary sensitivity for this sampling event. These thresholds need to be established before sampling begins.

EPA ESC Comment 5: **[SAP Worksheet #9, page 24]** There is a lengthy discussion of previous organic testing performed at the waste slag pile, but the results of those tests are not presented or documented in any way. If the results are known, state them, and show how they support the decision to drop the organics from the analytical suite for this sampling event.

**Comments:**

**[SAP Worksheet #10, page 29]** There is a duplicate bulleted paragraph “A maximum...”

EPA Tox Comment 1: I recommend performing chromium speciation on the five soil samples collected around and beneath the slag pile. Determining whether chromium is present in the toxic hexavalent form or the more benign trivalent form could make a difference when determining the extent of excavation.

EPA RPM Comment 1: Can we add in a sentence which states what exceeded the comparison to the approved background dataset as well.

EPA RPM Comment 2: What if we find levels significantly exceeding the RSL in the 6-24in samples. Will we be sampling deeper or will this be addressed via confirmation samples following the removal action?

If you have any questions, please contact me at 215-814-3378.

Sincerely,

A handwritten signature in black ink, appearing to read "John Burchette", is centered below the word "Sincerely,". The signature is fluid and cursive.

John Burchette  
Remedial Project Manager

cc: Wade Smith, VDEQ