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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
841 Chestnut Building
Philadelphia, Pennsylvania 19107

Office of Superfund
Robert Thomson, P.E.
Mail Code 3HW71

Direct Dial (215) 597-1110
FAX (215) 597-9890

Date: December 5, 1994

Ms. Brenda Norton, PE
Atlantic Division, Naval Facilities Engineering Command
Environmental Quality Division
Code: 1822
Building N 26, Room 54
1510 Gilbert Street
Norfolk, Va 23511-2699

Re: Naval Weapons Station, Yorktown, Va.
Site Screening Areas 12
Review of draft *Soil Assessment Report*

Dear Ms. Norton:

The U.S. Environmental Protection Agency (EPA) has reviewed the Navy's draft *Soil Assessment Report* for the investigation of Site Screening Area 12 located at the Naval Weapons Station-Yorktown (WPNSTA) NPL facility. Based upon that review, EPA has the following comments on the draft document:

GENERAL COMMENTS

1. For screening purposes, it is inappropriate to compare the chemical concentrations obtained from a sampling event to RBC values. Instead, the table values contained in EPA's *Selection of Contaminants of Concern by Risk-Based Screening* (SCCRBS) guidance document should be used for this purpose. Additionally, in order to avoid confusion, the table values contained in the SCCRBS guidance document should be referred to as "Contaminant of Concern" or "COC" table values. The term "RBC value" should be used or referenced in connection with site screening.

2. Please include the analytical data obtained for all 46 soil samples. Since it appears that an incorrect screening value was used to evaluate soils, i.e. RBC values, then presenting only the analytical soil results which exceeded the RBC values is misleading and incomplete.

SPECIFIC COMMENTS

1. Section 3.2, page 3-1

As mentioned above, EPA's SCCRBS guidance document should be used for screening soil data, and the chemical concentrations obtained from a sampling event compared to COC table values, not RBC values.

2. Section 3.2.1, page 3-2

The "range" of the arsenic soil concentrations detected at SSA 12 is immaterial. In fact, such a distribution could be illustrative of a release. EPA recommends that the focus of the presentation of soil data be changed from the range of the arsenic concentrations to the location of the arsenic soil

concentrations exceeding the COC table values. Are the locations of the soil samples containing arsenic at a level exceeding the COC table values evenly distributed over SSA 12, or are they concentrated in one area of SSA 12? Are the exceedances concentrated in a specific soil type? Could a distribution map be presented depicting the range of arsenic soil concentration over the SSA 12 area? Arsenic concentrations that appear to be "outliers" include sample numbers A12SB02-00, A12SB12-00, and A12SB23-00.

3. Section 3.2.1, page 3-2

The published "background" range for arsenic soil concentrations spanning three orders of magnitude is useless for comparison to specific site soil concentration data. It is suggested that if an arsenic soil "background" concentration from a text is to be presented "for perspective purposes", a reference other than Shacklette (throw Shacklette onto the nearest bon-fire built for the other undergraduate texts) be used, preferably one than represents a regional "perspective" by soil type.

4. Section 3.2.2, page 3-2

Once again, it appears that an incorrect screening value was utilized, i.e. the RBC value. Therefore, it would be appropriate to re-evaluate the 46 soil samples using the correct COC table values for screening purposes.

5. Section 3.2.4, page 3-2

See comment 4.

6. Section 3.2.5, page 3-2

Again, the range of the TPH soil concentration detected at SSA 12 is not as important as depicting the distribution. Please develop a map which depicts how the locations of the soil samples containing TPH at a level exceeding the Virginia Action level are distributed over the SSA 12 area.

7. Section 4.0, page 4-1

Why is there no discussion about the exceedances of the Virginia Action level for TPH, or what is intended to be done about those exceedances?

This concludes EPA's review of the draft *Soil Assessment Report* for the investigation of Site Screening Area 12 located at the WPNSTA NPL facility. If you have any questions concerning the above, please feel free to call me at (215) 597-1110,

Sincerely,

Robert Thomson

Robert Thomson, PE
VA/WV Superfund Federal Facilities (3HW71)

cc: Stephen Mihalko (VDEQ, Richmond)
Jeff Harlow (WPNSTA, Code 09E37)
Andy Rola (BVWST, Phila)