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LETTER AND COMMENTS FROM U S EPA REGION 1 REGARDING DRAFT STUDY AREA SCREENING EVALUATION SITE 4 CODDINGTON COVE RUBBLE FILL AREA NS NEWPORT RI
06/10/2011
U S EPA REGION 1

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
5 POST OFFICE SQUARE, SUITE 100
BOSTON, MASSACHUSETTS 02109-3912

June 10, 2011

Maritza L. Montegross
Remedial Project Manager
NAVFAC MIDLANT, Code OPNEEV
9742 Maryland Avenue, Bldg. Z-144
Norfolk, VA 23511-3095

Re: Draft Study Area Screening Evaluation
Site 04, Coddington Cove Rubble Fill Area
Naval Station Newport
April 2011

Dear Ms. Montegross:

EPA has reviewed the document entitled "Draft Study Area Screening Evaluation for Site 04 – Coddington Cove Rubble Fill Area, Naval Station Newport, Newport, Rhode Island," dated April 2011 (referred to as the Draft SASE). The document was prepared by Tetra Tech NUS, Inc. for the Navy. The document presents the results of a sampling and analysis investigation of potentially contaminated media at the subject site to determine if a potential risk to human health or the environment exists at the site. The SASE was conducted in accordance with the "Final Sampling and Analysis Plan (Field Sampling Plan and QAPP), Study Area Screening Evaluation, Site 04, Coddington Cove Rubble Fill Area, NAVSTA Newport, Newport, RI," dated November 2010.

The document was reviewed for completeness, technical accuracy, and consistency. General and Specific Comments on the referenced document are attached.

If you have any questions, please contact me at (617) 918-1754 or at lombardo.ginny@epa.gov.

Sincerely,

Ginny Lombardo

Ginny Lombardo
Remedial Project Manager

cc: Gary Jablonski, RI DEM
Darlene Ward, NAVSTA Newport
Stephen Parker, TtNUS
Thomas Campbell, TtNUS
Chau Vu, EPA
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Ken Munney, USFWS
Paul Steinberg, Mabbett & Associates, Inc.
Greg Kemp, Mabbett & Associates, Inc.

EPA Comments on
Draft Study Area Screening Evaluation
Site 04 - Coddington Cove Rubble Fill Area
Naval Station Newport
Newport, Rhode Island
April 2011

GENERAL COMMENTS

1. The human health screening benchmarks for surface water and sediment were based on the RSL for groundwater and soil but were 10 times higher. EPA does not allow the adjustment of the RSLs for groundwater and soil to be used for surface water and sediment. The same RSLs for groundwater and soil should be utilized for surface water and sediment.

2. The text (section 6.1.1 and 6.2.2) indicates that if risk were calculated for Aroclor 1260 and PAHs, the cancer risk would not exceed the acceptable risk range. This position ignores the additive nature of risk assessment. Risk should be calculated for these chemicals for the appropriate human receptors, to demonstrate that the cumulative HIs for the same target organ effects do not exceed the acceptable level of 1. In addition, while it has been demonstrated that concentrations for some chemicals (e.g., several metals) are consistent with background concentrations, all chemicals that exceed the RSLs should be included so that the cumulative HIs reflect all appropriate chemical exposures.

3. The text indicates that some of the exceedances of RSLs for groundwater and wetland sediment do not merit further evaluation because concentrations of these chemicals in site soil are consistent with background concentrations in soil. Given that the factors that influence the fate and transport of chemicals in groundwater and sediment are different from those in soil, the background comparison for soil is not a sufficient justification for removing groundwater and sediment chemicals from further evaluation.

4. The soil and groundwater PALs in the Section 4 tables should be consistent with the RSLs. EPA does not accept adjusting RSLs to be used as PALs. The only exception is when it is not feasible to measure such low levels from the lab. That would need justification from the lab and would only apply to those chemicals identified by the lab.

5. For ecological risk purposes, it is the position of EPA that frequency of detection should not be used in situations where there are fewer than 20 samples, because the threshold of 5% detection cannot be used with validity with smaller data sets.

6. The SASE contains multiple erroneous references to Appendix C when indicating the location of boring and field log sheets; however, this information is contained in Appendix B.

SPECIFIC COMMENTS

1. <u>Page 4-1, §4.1:</u> In the first paragraph, please correct the analytical methods listed for metals: the list should include both 7470A (aqueous) and 7471B (solids).

2. Page 4-2, §4.1: Please correct the typo in the first paragraph: the referenced method should be 8015B(M).

3. Page 4-13, §4.2.4: For consistency and to facilitate comparisons, please report the PAL concentrations in the table on this page in units of micrograms per kilogram (µg/Kg). The PAL column is labeled as µg/Kg but the values listed are milligrams per kilogram.

4. Page 6-4, §6.1.1: At the end of the first paragraph, the text refers to Appendix F in regards to the comparison of site data to background. The background comparisons are in Appendix G, not Appendix F.

5. Page 6-5, §6.1.2 and Table 6-1: Provide rationale for the use of the dilution and attenuation factor (DAF) of 20.

6. Page 6-10, §6.6: The text states that neither manganese nor vanadium "would be selected as COPCs if the wetland sediment screening level presented in Table 6-6 were used to estimate risks in a quantitative HHRA." This is not accurate. These metals should be considered COPC in an HHRA in order to evaluate cumulative risk across all exposure pathways and for all appropriate chemicals. They may not present unacceptable risk by themselves but would add to the cumulative HI.

7. Page 7-16, §7.4.2: Acetone is noted as being a common laboratory contaminant. This should not be taken as a reason to remove it as a COPC unless laboratory blank information is available to suggest that it is a lab contaminant in this instance.

8. Page 7-18, §7.4.2: This section eliminates numerous COPCs because they do not exceed the probable effects concentration (PEC). Taken collectively there are quite a few chemicals exceeding screening benchmarks, and there could be additive toxicity associated with multiple contaminants. Further evaluation of sediment is warranted due to the exceedance of screening benchmarks for pesticides, PCBs and numerous metals.

9. Page 7-24, §7.6.2: The argument for eliminating numerous COPCs in sediment is not convincing, since it is based only on a single line of evidence. A sediment in which multiple screening values are exceeded may be toxic even though none of the contaminants exceeds a PEC.

10. Table 4-1: Provide rationale for the screening level for acenaphthylene (340,000 µg/kg), benzo(g,h,i)perylene (170,000 µg /kg), and phenanthrene (170,000 µg /kg) in soil. There are no RSLs for these chemicals. Add the RSL (updated in May 2011) for thallium (0.78 mg/kg) to Table 4-1 and screen sample concentrations against this benchmark.

11. Table 4-4: Provide support for the groundwater PAL listed for phenanthrene (110 µg /L) which does not have an RSL. Lead is missing from the dissolved metals list on page 2 of 2. Please review and correct.

12. Table 6-1: Add definitions for the notes (superscripts) in the table. Site soil concentrations were compared with SSLs for the protection of groundwater. For chemicals for which no risk-based SSL is available in the RSL Tables (e.g., lead), the MCL-based SSL should be

used as the screening tool, rather than leaving the value blank. As stated in Section 4.11 of the RSL Users Guide, "SSLs are either back-calculated from protective risk-based ground water concentrations or based on MCLs." Please use the MCL-based SSLs when risk-based SSLs are not available.

13. Table 6-5 and 6-6: Provide rationale for using the less conservative ORNL RSL for chromium III, rather than that for chromium VI. It may be helpful to refer to the narrative that was written for the Gould Island SAP in late 2008/early 2009.

14. Table 6-5: No surface water benchmark is provided for lead. As noted on Page 6-3: "The SDWA action level of 15 µg/L is generally used as the screening level for lead in groundwater and surface water." For completeness, please add this value to Table 6-5.

15. Figure 1-2: Figure notes 3 and 4 state that the base plan was developed with the NAD 1927 horizontal datum but that the sample locations were surveyed using the NAD 1983 horizontal datum. Clarify how this impacts the spatial relationship between the site features and the sample locations. Add control points NGS NE 001 and Bishop 2 to this figure for reference.