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LETTER AND U S EPA REGION I COMMENTS ON REVISED DRAFT STUDY AREA  
SCREENING INVESTIGATION SITE 4 CODDINGTON COVE RUBBLE FILL AREA MAY 2012  
AND REVISED DRAFT STEP 3A TABLES, ECOLOGICAL RISK ASSESSMENT NOVEMBER  
2012 NS NEWPORT RI  
12/14/2012  
U S EPA REGION I



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

December 14, 2012

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

Re: Revised Draft Study Area Screening Investigation  
Site 04, Coddington Cove Rubble Fill Area (May 2012) and  
Revised Draft Step 3A Tables, Ecological Risk Assessment (November 2012)

Dear Ms. Montegross:

EPA has reviewed the revised draft 'Step 3A' tables submitted by TetraTech, on behalf of the Navy, via email on November 12, 2012. The revised draft 'Step 3A' tables were prepared as a partial revision of the "Revised Draft Study Area Screening Investigation for Site 04, Coddington Cove Rubble Fill Area, Naval Station Newport, Newport, Rhode Island," originally submitted in May 2012 (hereinafter referred to as the Revised Draft SASE). The Revised Draft SASE, and these more recent revisions, were prepared to respond to regulatory comments on the Draft SASE and support a more robust ecological risk assessment. The tables were provided as an interim deliverable prior to the finalization of the SASE. EPA requests that Navy address the enclosed comments and submit the Draft Final SASE for EPA review and concurrence.

EPA's comments on the revised draft 'Step 3A' tables and ecological risk assessment are attached. If you have any questions or would like to schedule a conference call to discuss, please contact me at (617) 918-1754 or at [lombardo.ginny@epa.gov](mailto:lombardo.ginny@epa.gov).

Sincerely,

  
Ginny Lombardo  
Remedial Project Manager

cc: Pamela Crump, RI DEM  
Darlene Ward, NAVSTA Newport  
Stephen Parker, TtNUS  
Thomas Campbell, TtNUS

Chau Vu, EPA  
Bart Hoskins, EPA  
Ken Munney, USFWS  
Paul Steinberg, Mabbett & Associates, Inc.  
Greg Kemp, Mabbett & Associates, Inc.  
Deborah Roberts, Roberts Environmental Consulting, Inc.

**EPA Comments on  
Revised Draft Study Area Screening Evaluation (May 2012) and  
Revised Draft Step 3A Tables for Ecological Risk Assessment (November 2012)  
Site 04 - Coddington Cove Rubble Fill Area  
Naval Station Newport  
Newport, Rhode Island**

**GENERAL COMMENTS:**

1. EPA has re-considered the need to make major structural changes to the tables for purposes of moving forward with this site and is instead requesting, via the comments below, that the Navy simply remove certain columns in favor of text statements. EPA recognizes that this is a departure from statements made during the November 28, 2012 RPM meeting.
2. Navy should assume that unless a site-specific agreement is made between agencies, EPA will continue to reserve consideration of background data for the end of the BERA process, rather than the SLERA.
3. In any case where a COPC is screened out in the first step, include language stating:  
*“Although COPCs including (List) had EEQ values exceeding 1 for (Receptor) (Table 7.x), the EEQ for residual risk for (List COPCs) was less than 1.0, indicating potential risk to receptor populations are not higher for average exposure scenarios than background.”* See specific comment 2, below for an example for soil invertebrates.

**SPECIFIC COMMENTS:**

1. Page 7-14, Section 7.4, last bullet: At the end of the paragraph, add the following statement:  
*“Based on comments from EPA, the evaluation of the potential for incremental risk above background was considered for each receptor population only after the site risk to receptors was characterized in preceding steps.”*
2. Page 7-16, Section 7.4.1, Soil Invertebrates: After the paragraph discussing VOCs, add the following text: *“Although COPCs including arsenic, barium, chromium, copper, mercury silver, zinc, dieldrin and endrin aldehyde had EEQ values exceeding 1 for soil invertebrates (Table 7.x), the EEQ for residual risk for all but iron, zinc and endrin aldehyde was less than 1.0, indicating potential risk to receptor populations are not higher for average exposure scenarios than background.”* Discussion of these 3 COPCs should follow.
3. Page 7-21, Section 7.4.2: At the end of the section, add a discussion of the results in the context of the functions and values of the wetlands. Suggested text: *“Based on the wetland functions and values assessment conducted at the site (Section 2.5), the principal functions of the wetland in the CCRF study area are floodflow alteration and sediment/toxicant reduction. The wetlands are dominated by a dense monotypic stand of common reed (Phragmites australis), resulting in a very low quality habitat value. Although some aquatic invertebrates likely inhabit the sediment and surface water in the wetland, this community is likely impaired due to physical habitat quality and does not provide a major function as a food source for upper trophic levels in the wetland, since these aquatic and semi-aquatic*

*receptors are also limited by the poor habitat in the wetland.”*

4. Page 7-26, Section 7.6.1, Terrestrial Plants and Soil Invertebrates: Replace the text with the following: *“Several chemicals were identified as potentially posing low risk to terrestrial plant and soil invertebrate receptors. Additional evaluation of these compounds indicates that the residual risk (above measured local background) is not likely to result in any measurable impact on ecological communities or populations likely present at this site. Evaluation of the magnitude of the residual risk and consideration of the low quality of the habitat present at the site supports the conclusion that the potential for significant impacts on soil receptors is not present, and would not be detected in a full BERA evaluation.”*
5. Page 7-26, Section 7.6.2, Sediment Invertebrates and Aquatic Organisms: Replace the text with the following: *“Several chemicals were identified as potentially posing low risk to aquatic organisms and sediment invertebrates present in the wetland. Additional evaluation of these compounds indicates that the residual risk (above measured local background) is not likely to result in any measurable impact on ecological communities or populations likely present at this site. Higher level effects benchmarks for sediment invertebrates were observed to be greater than one for a limited number of COPCs, mainly PAHs. Adverse effects to sediment invertebrates are not expected from exposure to PAHs since all detected concentrations on the site are less than the PECs, and most were only slightly greater than TECs. In addition, the maximum and average site concentrations of PAHs were generally lower than observed background concentrations and distribution of and the source of on-site PAHs suggests that these contaminants are not likely to be site-related. Evaluation of the magnitude of the residual risk and consideration of the low quality of the habitat present at the site supports the conclusion that the potential for significant impacts on aquatic receptors in the wetland is not present, and would not be detected in a full BERA evaluation.”*
6. Page 7-26, Section 7.6.3, Mammals and Birds: Replace the text with the following: *“Several chemicals were identified as potentially posing low risk to wildlife receptors populations potentially present study area. Additional evaluation of these compounds indicates that the residual risk (above measured local background) is not likely to result in any measurable impact receptor populations likely present at this site. Evaluation of the magnitude of the residual risk and consideration of the low quality of the habitat present at the site supports the conclusion that the potential for significant impacts on wildlife receptors is not present, and would not be detected in a full BERA evaluation.”*
7. Page 8-5, Section 8.3, Ecological Risk Assessment: Delete the second paragraph beginning *“Comparison of surface soil, ...”*. At the end of this section, insert the following text that summarizes the results of the risk evaluation with the following statement:

*Comparison of surface soil, groundwater, surface water, and sediment data to ecological screening criteria indicated potential risk to terrestrial and aquatic organisms in the SERA screening. However, additional evaluation of risk was applied following the screening-level risk assessment due to site-specific considerations. According to EPA Guidance (ERAGS, 1997), at the completion of a Screening-Level Ecological Risk Assessment (SERA), there is a Scientific/Management Decision Point (SMDP) when a*

*decision may be made as to whether the information available is adequate to make a risk management decision. One possible decision at this point is that there is adequate information to conclude that ecological risks are negligible and therefore there is no need for remediation on the basis of ecological risk.*

*At the end of the Screening step for the site, the information as presented was not adequate to make such a decision, and the ecological risk assessment process needed to continue to Step 3. The Revised Draft SASE addressed this issue by providing significant additional site-specific information in Step 3A (COPC Refinement), and a functions and values assessment (summarized above). The purpose of these evaluations was to determine whether the incremental risk (above background) and habitat quality warranted proceeding to a Baseline Ecological Risk Assessment. This SDMP was determined to hinge on whether the site would support a functioning population of receptors typically evaluated in a BERA. The further refinement of risk resulted in the conclusion that there is no residual risk (above measured local background) that is likely to result in any measurable impact on ecological communities or populations likely present at this site. Furthermore, with careful evaluation of the site-specific COPCs and Site conditions, it can be concluded that the preparation of a full Baseline Ecological Risk Assessment (BERA) would not provide data that would substantially alter the risk evaluation already conducted.*

#### **SPECIFIC COMMENTS ON STEP 3A TABLES**

(referenced by topic as table numbers are not yet assigned)

1. **Terrestrial Plants and Soil Invertebrates:** Remove the columns labeled Bioavailability/ Toxicity, Habitat Quality, Potential for Adverse Population-Level Effects, and Confidence from this table and replace them with a single column Labeled “Conclusion – is Residual Risk >1?”. The items covered by the removed columns can be addressed in the text.
2. **Sediment Invertebrates:** Remove the columns labeled Habitat Quality, Potential for Adverse Population-Level Effects, and Confidence from this table and replace them with a single column Labeled “Conclusion – is Residual Risk >1?”. The items covered by the removed columns can be addressed in the text.
3. **All wildlife receptors:** Remove the columns labeled Habitat Quality, Potential for Adverse Population-Level Effects, and Confidence Level from this table and replace them with a single column Labeled “Conclusion – is Residual Risk >1?”. The items covered by the removed columns can be addressed in the text.