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NSY PORTSMOUTH
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LETTER AND COMMENTS FROM U S EPA REGION I REGARDING DRAFT REMEDIAL
INVESTIGATION REPORT OPERABLE UNIT 7 (OU 7) NSY PORTSMOUTH ME
1/6/2011
U S EPA REGION I



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND - REGION I
1 CONGRESS STREET, SUITE 1100 (HBT)
BOSTON, MASSACHUSETTS 02114-2023

January 6, 2011

Linda L. Cole, P.E.
NAVFAC Mid-Atlantic
9742 Maryland Ave
Bldg Z-144, 1st Floor
Norfolk, VA 23511

Re: EPA comments on Draft OU7 Remedial Investigation Report, Portsmouth Naval Shipyard, Kittery, Maine

Dear Ms. Cole:

I have reviewed the subject documents provided by the Navy and have the attached comments.

If you have any questions, please feel free to contact me at audet.matthew@epa.gov or 617.918.1449.

Sincerely,

A handwritten signature in black ink that reads "Matthew R. Audet".

Matthew R. Audet, P.G.
Remedial Project Manager
Office of Site Remediation and Restoration

cc. Iver McLeod/ME DEP
Deb Cohen/Tetra Tech NUS
RAB Members

Attachment 1
US EPA Comments on Draft OU7 Remedial Investigation Report, OU7
Portsmouth Naval Shipyard

1. 6.0, 3rd paragraph: Figure 6-1 could not be found. Please include this figure at the end of § 6.
2. 6.2.1, 2nd paragraph: The end of the 2nd paragraph states that the sample detection limit was used as a surrogate concentration for non-detected results. The ProUCL tables in Appendix D indicate that use of ½ the detection limit is not recommended, suggesting that ½ the detection was used as a substitution value. Please clarify and revise as appropriate. The use of ½ the detection limit or any other arbitrary substitute value is not recommended in the ProUCL guidance, rather EPA would prefer that the EPC be calculated using statistically derived substitution values calculated by ProUCL (i.e. by entering 0, rather than 1 next to the detection limit concentration in the input file). Please recalculate the EPCs using this mode of ProUCL and revise the risk calculations and text. Alternatively, demonstrate in the response to these comments that use of the ½ detection limit substitution value is conservative compared with the results of ProUCL calculations that do not use an arbitrary substitution concentration, but rather the statistically calculated substitution concentration. This should be done with several data sets that showed acceptable and unacceptable risk using ½ the detection limit.
3. § 6.3.1.1.3: Please state in this section whether volatile organic chemicals were analyzed for in groundwater and whether they were detected.
4. § 6.5.4: Table 6-2 was not found in § 6. Perhaps it is a table in Appendix D or the unnumbered table in § 6.6.2. Please clarify in the text the location of the table.
5. § 6.6.2, page 6-36: In the first paragraph on page 6-36 change "contaminates" to "contaminants" where it occurs twice. Also change " 1×10^{-5} " to " 1×10^{-05} ".
6. § 6.6.4: In the first paragraph on page 6-43 change "additively" to "additivity" where it occurs 3 times.
7. § 6.7.2.2: In the first paragraph change " 3×10^{-04} " to " 3×10^{-04} ", if that is correct.
8. § 6.7.2.2: Correct the last sentence of the 2nd paragraph where it states that the ILCRs of 3×10^{-05} and 4×10^{-05} exceeded "both the Maine target level and USEPA target risk range".
9. Appendix B.2: In the text at B.2.1 please describe how non-detects are used in the background determination. It is observed that conclusions concerning background are made for antimony, Aroclor 1248, Aroclor 1254, Aroclor 1260, many PAHs, dieldrin, and mercury from datasets that contain a high proportion of nondetects. Please justify why it is acceptable to use surrogate values for non-detects in determining background. It is unclear whether the text at B.2.1 applies to surface soil or subsurface soil or other media. Please clarify and provide text conclusions for each type of medium.

10. Appendix D, Table 6.2: Review of the IRIS database shows that the inhalation unit risk for cadmium should be 1.8E-03 per ug/m³, rather than 4.2E-03 per ug/m³. Please revise the table and risk calculations.
11. Appendix D, Table 6.2: The inhalation unit risk for total chromium should be "NA", rather than 1E-02 per ug/m³ because the cancer guideline description for trivalent chromium is "D/Not classifiable as to human carcinogenicity". Please revise the table and any cancer risk calculation that used this or other values for unit risk because the text states that all chromium at the site was assumed to be trivalent.
12. It appears that ½ the detection limit was used as a replacement value for nondetects in the ProUCL printouts. The use of ½ the detection limit or any other arbitrary substitute value is not recommended in the ProUCL guidance, rather EPA would prefer that the EPC be calculated using statistically derived substitution values calculated by ProUCL by entering 0, rather than 1 next to the detection limit concentration in the input file.
13. In order to provide transparent documentation and for EPA to reproduce the EPC calculations in a representative set of calculations, please provide the input concentrations (including substitute concentrations for non-detects) for all ProUCL calculations. It is preferred that the input concentrations be provided in an Excel file in the same appendix as the ProUCL output.