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NSY PORTSMOUTH
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LETTER AND COMMENTS FROM U S EPA REGION I REGARDING DRAFT FEASIBILITY
STUDY FOR OPERABLE UNIT 4 (OU 4) NSY PORTSMOUTH ME
01/13/2011
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 13, 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 OU4 Feasibility Study, Portsmouth Naval Shipyard, Kittery, Maine***

Dear Ms. Cole:

I have reviewed the subject document provided by the Navy. The Agency's comments are attached.

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 blue ink that reads "Matthew R. Audet." The signature is fluid and cursive.

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 OU4 Feasibility Study,
Portsmouth Naval Shipyard

1. Section 1.5.1: In the third paragraph of this section it is stated that the Interim Remediation Goal (IRG) for lead was the value of its ER-M (Effects Range-Median) times two because the IRGs for copper and nickel were approximately twice their respective ER-M values. Although this approach was agreed upon, please provide a citation for this agreement and summarize the rationale for taking this approach. This is necessary to enhance transparency and clarity in this stand-alone document for the unfamiliar reader.

2. Section 1.6.10: Although EPA concurs with the tentative selection of monitored natural recovery for MS11, EPA requests revision of the ecological-based and area-based rationale used to eliminate MS11 from any remedial consideration other than monitored natural recovery (MNR). The exceedances of IRGs for copper and lead in the two locations shown in Figure 1-13 indicate unbounded exceedance of IRGs over at least 700 feet of shoreline prior to installation of shoreline controls, with no post-construction subtidal data available to evaluate whether IRGs are still exceeded. Since epibenthic organisms also exist in rocky intertidal habitat, including riprap, and could contact finer sediments between rocks during foraging, this 700 foot area does not represent an ecologically insignificant area, especially when compared with the smaller subtidal and intertidal areas that have been tentatively selected for active remediation. Due to uncertainty about what constitutes ecological significance at this site, EPA prefers that the rationale be based primarily on the following: 1) shoreline controls have already been constructed on most of the shoreline of this area, 2) the whole area is primarily non-depositional due to high adjacent tidal currents, 3) it is difficult to obtain fine sediment samples from the small area of about 150 feet of non-riprap habitat to the east of the riprap area because it is primarily rocky habitat. Please revise the discussion concerning MS11 accordingly throughout the document, including the language in Section 6.1.2.1 that the volume of sediment in the "small intertidal area that contains sediment is not large enough to represent an ecological risk" and the footnote for "NA" in Section 2.5 (page 2-12). For transparency and clarity in this stand-alone document, please summarize in Section 1.6.10 the shoreline controls that were constructed and the rationale for discontinuing sampling after Round 7.

3. Section 2.5: After the second sentence, please add a sentence explaining why no figure was provided for MS11

4. Appendix B.11: The figures for MS11 do not show the exceedances of IRGs by acenaphthylene, anthracene, fluorene, and HMW-PAH that are identified in Table 1-11. Please revise or explain in the figures, as appropriate.

5. Ex-situ treatment (other than dewatering) is screened out, but somewhat weakly (e.g., the text of Section 3.3.5 says that sediment washing, chemical stabilization, and incineration are screened out, but Table 3-1 p.3 says that they are retained for later).

CERCLA remedies are supposed to use permanent solutions to the maximum extent practicable, and if these more permanent solutions are practicable, they should be considered (obviously, with the attendant increases in cost and implementability issues).

Also, by excluding ex-situ treatment from all of the "Alternative 3"s (i.e., the active treatment alternatives), the Navy appears to have neutralized the preference for reduction of toxicity through treatment as one of the balancing factors. This would seem to bias the FS towards "Alternative 2" (MNA).

6. EPA's 1999 MNA guidance says that the MNA processes must be well understood, with a remediation timeframe that's reasonable compared to active treatment. The description of the MNA processes is very general ("biodegradation and/or dispersion") and has no estimate of a remediation timeframe, and the active remedies (removal) are very fast, so there's a high bar for being a reasonable timeframe under the circumstances.

7. The Navy's discussion of "sustainability" under "implementability" should be removed.

8. P.2-6, first full paragraph: Typo: "citing" should be "siting."

9. Section 2.1.3: Add as a federal action-specific TBC: EPA Office of Solid Waste and Emergency Response, *Use of Monitored Natural Attenuation at Superfund, RCRA Corrective Action, and Underground Storage Tank Sites*, OSWER Directive 9200.4-17P (Apr. 1999).

10. Sections 2.3 & 2.4: Section 2.4 should explain whether the PRGs on p.2-12 are final cleanup levels, how they correspond to ecological risk, and how they correspond to ARARs (including FDA action levels).

As an example, for a copper level of 486 mg/kg, what is the ecological hazard index? If a shellfish lives in soil with a copper level of 486, what does that translate into in the shellfish itself and how does that compare to the FDA action levels? Put another way, what are the FDA action levels for shellfish? Are there cumulative impact issues? Please include a discussion of both ecological risk and levels from the ARARs.

The RAO should be revised to something more like:

- a. Prevent exposure to predators of benthic invertebrates (including humans) from tissue concentrations in benthic invertebrates above the following levels: [then list the unsafe tissue concentration levels]
- b. Prevent exposure to benthic invertebrates from COCs in sediment above the following levels: [then list the level in sediment for each COC]

11. Section 3.3.2.1: The discussion of LUCs seems to focus entirely on onshore LUCs. The Navy should discuss offshore LUCs as well.

12. Section 3.3.2.3: Please provide as much detail as is known or knowable regarding the timeframe for natural attenuation and the relative contribution of biodegradation vs. dispersion.

13. P.3-14, bottom sentence: Change "the substantive requirements of an NPDES permit" to "the substantive requirements of Maine's waste discharge license law" or something similar.

14. P.3-23, discussion of ARARs compliance: Add to the end of the last sentence ". . . or

the alternative must be modified or eliminated from further consideration if it cannot ensure ARARs compliance.”

15. P.4-3: MS01-02: Consider the appropriateness of LUCs to prevent disturbance of the sediment and/or to prevent shellfishing. (The same comment applies for all MNA alternatives.)

16. P.4-4: Short-term effectiveness includes “time until protection is achieved” as a factor. Please provide an estimate of when MNA would lead to protective levels being attained, or if not, explain that the Navy does not know how long it would take for MNA to result in protective levels being attained.

17. Section 6.1: Consider an alternative that includes removal. While the sediment levels may be small at MS-11, perhaps removal could be combined with removal at another AOC (e.g., MS-12) to get the benefit of scale on mobilization costs.