U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Admin.
National Ocean Service
Office of Ocean Resource Conservation and Assessment
Hazardous Materials Response and Assessment Division
c/o EPA Office of Site Remediation and Restoration (HIO)
J.F. Kennedy Federal Building
Boston, MA 02203
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Ms. Kymberlee Keckler
U.S. EPA Waste Management Division
J.F. Kennedy Federal Building
Boston, MA 02203

Mr. James Shafer
U.S. Department of the Navy
Northern Division - NAVFAC
10 Industrial Highway
Code 1811/PO - Mail Stop 82
Lester, PA 19113-2090

Dear Kymberlee/Jim:

Thank you for the Draft Feasibility Study, Former Robert E. Derecktor Shipyard, Naval Education and Training Center, Newport, Rhode Island. Prepared by Tetra Tech NUS, Inc, September 1998. The Feasibility Study (FS) for the Derecktor Shipyard presented information describing remedial action alternatives for remediating contaminated sediments in Coddington Cove adjacent to the shipyard. The proposed alternatives are:

- Alternative 1 – No action
- Alternative 2 – Limited action, including restricted access to portions of Coddington Cove to prevent the taking of shellfish and lobster. Monitoring existing conditions would be performed annually to determine if the concentrations of contaminants remain elevated.
- Alternative 3A – Limited dredging within Coddington Cove adjacent to Derecktor Shipyard. Dredging would be conducted between Piers 1 and 2 and south of Pier 1 at stations 2, 3, 20, 27, 28, and 29 where contaminants of concern (COC) were present in excess of their PRGs for ecological receptors. It is estimated that 25,690 m^3 of sediment would be removed and landfilled off site from areas near the piers and shipyard waterfront. Access restrictions and bans on the collection of lobster and shellfish would also be imposed.
- Alternative 3B – "Hot Spot" dredging would involve the removal of approximately 630 m^3 of sediment from stations 2, 20, 27, 28, and 29. Hot spots larger than 33 m in diameter would be identified and the sediments removed. The dredge spoils would be landfilled off site. A predesign investigation would be conducted to locate additional hot spots that might be

present near the shoreline. As with Alternatives 2 and 3B, access restrictions and bans on collecting shellfish and lobster would also be imposed.

- Alternative 4 – Complete dredging and off-site landfilling of sediment. Under this alternative, a large portion of Coddington Cove would be dredged resulting in the removal of approximately 38,920 m^3 of sediment.

Comments

Of the five remedial alternatives under consideration at the Derecktor Shipyard Site, the three dredging alternatives would be the most protective of natural resources using Coddington Cove. Alternatives 3A and 4 would be the most protective of the dredging alternatives. Under Alternatives 3A and 4, sediment with COC concentrations exceeding the recommended PRGs for the protection of ecological receptors would be removed and disposed of off site.

Alternative 3B would result in the removal of sediments with COC concentrations exceeding five times the recommended PRGs for the protection of ecological receptors. Note, five times the PRG for lead, copper, and PCBs results in clean-up concentrations of 840, 735, and 5 mg/kg, respectively. Hence, under Alternative 3B, marine aquatic receptors could continue to be impacted by lead, copper, and PCBs in surface sediments at concentrations as high as 197/262 mg/kg for copper (ERM = 270 mg/kg) at Stations 2/3, 186/201 mg/kg for lead (ERM = 218 mg/kg) at Stations 29/3, and 3.3 mg/kg for PCBs (ERM = 0.180 mg/kg) at Station 27. High molecular weight PAHs would also be present at concentrations as high as 63.9 mg/kg (ERM for total PAHs = 44.8 mg/kg). Additionally, setting the clean-up concentrations at five times the PRGs encourages some extremely high (and precedent setting?) residual contamination, if not here, then elsewhere. In addition, the proposed PRGs for o,p'-DDE and dibenz(a,h)anthracene are already much greater than the ERM concentration. Multiplying the PRGs for these two chemicals by five results in a clean-up concentration that likely will cause harm to biological resources. Although NOAA is not recommending the ER-M as a PRG or final clean-up concentration, those concentrations compared against the much higher PRGs when multiplied by five cannot be ignored.

Of Alternatives 3A and 4, Alternative 4 would be the most protective of the environment and human health although such extensive dredging activity results in other temporary adverse conditions for natural resources. From the standpoint of protecting just ecological receptors, Alternatives 3A and 4 may be fairly comparable, but the latter is substantially more costly than Alternative 3A ($16,989,548 versus $24,777,923). Considering protectiveness, cost, and implementability, Alternative 3A appears to offer the best compromise.

NOAA believes that alternative 3B remains a potentially viable remedy, but only if it was modified. In the document it was stated that hot spots were defined as having sediment COC concentrations that exceeded five times the PRG. No rationale was presented for selecting five times the PRG as the limiting concentration, although the conservative nature of the PRG development could point to a clean-up concentration above them. But a justification to multiply the PRGs by five or any factor is not provided. As shown above, the five times multiplier is much too great. In its current form, Alternative 3B would only result in the removal of a minimum of 630 m^3 of contaminated sediment, whereas Alternative 3A would remove 25,690 m^3 of sediment. Considering the disparity between these two alternatives, it seems that an alternative that falls somewhere between these in the

volume of sediment to be remediated would be more in line. NOAA cannot support Alternative 3B in its present form, it is recommended that some justification be presented for using a concentration of X times the PRG as the definition of a hot spot. The PRGs selected for Coddington Cove are conservative but not overly so in their protectiveness of biota. Leaving COCs in place at concentrations five times their PRGs will likely continue to put these resources at risk even after remediation is completed.

Lastly, there are a few typographical errors in Table 2-1; the PRGs for PCBs show incorrect units.

Please let me know if you have any questions.

Sincerely,

Kenneth Finkelstein, Ph.D.

cc: Tim Prior (USF&WS)
Cornell Rosiu (EPA)