



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
1 CONGRESS STREET, SUITE 1100
BOSTON, MASSACHUSETTS 02114-2023

N00129.AR.000795
NSB NEW LONDON
5090.3a

April 3, 2000

Mark Evans, Remedial Project Manager
U.S. Department of the Navy
Naval Facilities Engineering Command
Northern Division
10 Industrial Highway
Code 1823, Mail Stop 82
Lester, PA 19113-2090

Re: Draft Final Feasibility Study for the Area A Weapons Center at the Naval Submarine Base in Groton, CT

Dear Mr. Evans:

EPA reviewed the *Draft Final Feasibility Study for the Area A Weapons Center* at the Naval Submarine Base in Groton, CT dated February 2000 and the modifications to it sent on March 27, 2000. The document was reviewed for accuracy and consistency and the response to comments for completeness in addressing the issues raised in EPA's comments dated January 4, 2000. Detailed comments are provided in Attachment A.

It was noted that the human health Contaminants of Concern ("COCs") and Preliminary Remedial Goals ("PRGs") values had changed in the revised document. The changes in these values appear to be consistent with those requested through EPA comments. EPA confirmed the PRG values by reproducing the derivation calculations for selected contaminants.

The FS includes a "Statement Concerning Additional Modifications for the Draft Final Feasibility Study Site 20 - Area A Weapons Center, Naval Submarine Base New London," Item Number 6 states that the human health toxicity data was added to Table B-1. This stated correction is not correct. The toxicity data for the COCs was added to Table B.2-2.

This FS would benefit from a more detailed discussion of the bunker reconstruction and associated soil removal that occurred in the mid-1980s. This work is recent enough that detailed information should be available. If a significant amount of soil was removed throughout Site 20, then the limited amount of sampling conducted at the site may be an acceptable check on the present character of soil at the site. However, without the knowledge that extensive soil removal occurred throughout Site 20, then the conclusions of this FS, which rely heavily on that limited sampling, are questionable at best.

The excavation alternatives only propose to remove soil and sediment in the immediate vicinity of sample locations with contaminant concentrations exceeding PRGs. The contamination may

Toll Free • 1-888-372-7341

Internet Address (URL) • <http://www.epa.gov/region1>

Recycled/Recyclable • Printed with Vegetable Oil Based Inks on Recycled Paper (Minimum 30% Postconsumer)

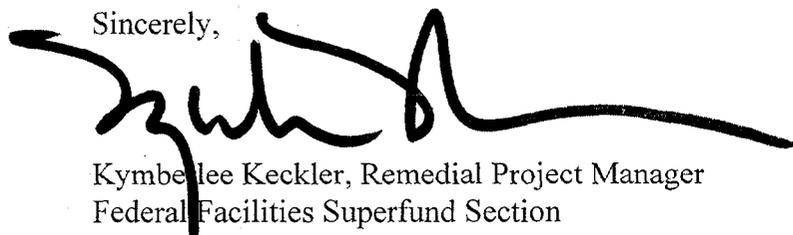
be more extensive than depicted in Figures 4-1 and 4-2. Some additional contamination is likely to be found when confirmation samples are analyzed, in which case it is assumed that some step out procedure would be implemented to remove any additional contamination found in the vicinity of the proposed excavations. The problem with this scenario is that it seems just as likely that contamination exists in shallow surface soil throughout Site 20 in locations that have not been sampled. Similar to what has been performed at the adjacent Area A Downstream, EPA recommends a pre-remedial sampling effort to focus on PAH contamination in shallow soil throughout the site. The revised FS should reflect this recommendation as part of a protectiveness statement.

The ARARs tables continue to be incorrect. EPA provided ARARs tables to be copied into the FS on July 27, 1999 and reiterated some of these ARAR comments on October 13, 1999. It is unclear why the FS continues to provide erroneous ARAR citations. Please review EPA's earlier comments and the comments herein and ensure that the FS gets revised appropriately.

Section 2.6 of the FS refers to "Generalized, conceptual-level RAOs." This is not consistent with the requirements of the NCP set forth at 40 C.F.R. § 300.430(e)(2)(i). Please list the numerical cleanup goals into the discussion of the RAOs.

I look forward to working with you and the Connecticut Department of Environmental Protection toward remedy selection for the Area A Weapons of the Naval Submarine Base. Please do not hesitate to contact me at (617) 918-1385 should you have any questions or wish to arrange a meeting.

Sincerely,



Kymberlee Keckler, Remedial Project Manager
Federal Facilities Superfund Section

Attachment

cc: Mark Lewis, CTDEP, Hartford, CT
Darlene Ward, NSBNL, Groton, CT
David Peterson, USEPA, Boston, MA
Patti Lynne Tyler, USEPA, Lexington, MA
Jennifer Stump, Gannett Fleming, Harrisburg, PA
Chip McLeod, EA, Newburgh, NY

ATTACHMENT A

<u>Page</u>	<u>Comment</u>
Ch. 1, p. 5	<p>The first paragraph in Section 1.2.2.2 discusses the number of samples collected during the Phase II RI. The numbers presented in the fifth sentence do not correspond with the numbers in Table 1-1 (the duplicates were counted for soil but not for groundwater or sediment). Also, rounds of groundwater samples were collected, but this is not mentioned until the next paragraph. In the second paragraph of Section 1.2.2.2, the list of analyses for groundwater do not correspond with Table 1-1. Some of the analyses listed in the text for groundwater were performed on other media according to Table 1-1. These inconsistencies need to be corrected.</p>
Figure 1-3	<p>In reference to the cross-sections, the sampling points included on Figure 1-3 do not correspond with those shown in Figures 1-5 and 1-6, so the cross-sections cannot be easily interpreted.</p> <p>There appear to be several labeling errors on this figure. 2WCSW5 is missing and 2WCMW3 is mislabeled as 2WCSW3. Is 2WMW2S labeled correctly? Please review and correct as necessary.</p>
Figure 1-5	<p>If 2WCMW2S is a correct label, then Fig 1-3 needs to be corrected. 2WTB6, shown in this figure is not included on Figure 1-3 but should be added for clarity.</p>
Figure 1-7	<p>The limits of the Area A Weapons Center on this figure and Figure 1-8 do not correspond with the limits shown on other figures used throughout this FS. This should be corrected or a note added to acknowledge the discrepancy. How were the limits of Site 20 determined? This is obviously an important question if an ELUR is to be written into the Base Master Plan.</p>
Table 1-1	<p>Page 1 of this table should indicate which soil samples were above the water table (for evaluation of CT PMC). Add a footnote to page 2 for sediment samples 2WCSD1 and 2WCSD2 indicating that they have been determined to be soil samples for the purposes of this FS.</p> <p>2WCMW4D is not shown on Figures 1-3 and 1-4. 2WCMW2S is not shown on Figures 1-3 and 1-4 unless it has been mislabeled as 2WMW2S. Please edit as appropriate.</p>

Ch. 2, p. 4, §2.2.5 Throughout this section the Navy should incorporate the ARARs tables supplied by EPA in determining what ARARs should be included and under what action-level.

Ch. 2, p. 4, §2.2.5.1 Move the first bullet to Action-specific ARARs.

Ch. 2, p. 4, ¶3 Move the text on the hazardous waste management regulations to the Action-specific ARARs section.

In this paragraph change all but the first citation to RCRA to the CT Hazardous Waste Management Regulations.

Change the last two sentences to: “No COCs at Site 20 have been determined to exhibit hazardous waste characteristics. Any movement of contaminated soil or sediment at the Site will require testing of the material to determine that characteristic hazardous waste is not present. If hazardous waste is identified it will be handled and remediated under these standards.”

Ch. 2, p. 6 The meaning of the last paragraph in Section 2.2.5.1 is not clear. PMC do apply to soil that is polluted with constituents other than VOCs and PMC only apply to soil above the seasonal high water table. Please edit this paragraph to clarify the intent.

Ch. 2, p. 6, § 2.2.5.2 In the first bullet move the part of the citation referring to the CWA Water Quality Criteria, Section 402 (40 CFR 122-125) to the Action-specific ARARs.

In the second bullet remove “Federal and.” If there are no potential state-listed plants at the Site or in the adjacent Area A Wetland then remove the citation completely.

Ch. 2, p. 7, ¶1 In the title remove “, Water Quality Criteria,”.

Change the text so that it only refers to the Section 404 wetlands standards. The discussion of the water quality standards and the NPDES standards should be moved to Action-specific ARARs.

Move the first bullet to Action-specific ARARs.

Remove the second bullet unless it is planned to discharge into a POTW.

- Ch. 2, p. 7, ¶2 In the title remove “Federal and.” See previous comment if citation is needed. If there are potentially listed species present then list the citation, but in the text remove any reference to the sturgeon because the Site is not on the river.
- Ch. 2, p. 8, ¶1 In the last sentence remove “federal and.”
- Ch. 2, p. 8, § 2.2.5.3 Remove the first bullet, since the CT regulations incorporate the RCRA standards.
- Insert a new bullet for the Clean Water Act, Section 402 (to be moved from the chemical-specific ARARs section).
- Remove the fourth bullet since the CAA is not an ARAR for any of the proposed remedial actions (would only be included if the remedy included a treatment process which vents to the air).
- Ch. 2, p. 9, ¶1 Remove the description of RCRA.
- Ch. 2, p. 9, ¶3 Change the first two sentences to: “Connecticut is delegated to administer the federal RCRA statute through its state regulations. Under RCRA Section 22a-449(c)100-101 of Connecticut’s Hazardous Waste Management Regulations establish standards for listing and identification of hazardous waste.”
- Ch. 2, p. 9 Insert the paragraph from the chemical-specific ARARs discussing the federal Clean Water Act, Section 402.
- Ch. 2, p. 10, ¶1 Remove the first paragraph since the CAA is not an ARAR for any of the proposed remedies.
- Ch. 2, p. 11 The reference to Figure 2-1 in the first sentence of Section 2.3 is erroneous.
- Ch. 2, p. 12 The first sentence in the second paragraph of Section 2.3.2.1 should clarify that the specified ELUR would prohibit residential use of the property, because an ELUR can be applied for many reasons. Also, some thought needs to be given to how the limits of Site 20 would be determined so that Site 20 could be adequately identified in the Base Master Plan.
- Figure 2-1 Appendix C.1 indicates that soil sample 2WCTB1 had a benzo(a)pyrene concentration of 0.27 mg/kg rather than 1.8 mg/kg as shown in this figure.

	<p>It appears that a number of samples are flagged with analytical results that do not exceed PRGs for the current industrial land use. For example, many of the sediment samples with arsenic that are flagged do not appear to exceed PRGs for current land use. Is the title of this figure correct? Please clarify the apparent discrepancy and correct as necessary.</p>
Table 2-1, p. 1	<p>Have this table match the ARARs tables supplied previously by EPA. Specifically:</p> <p>Move the CT hazardous waste management regulations from Chemical-specific to Action-specific and make them applicable.</p> <p>Under the Clean Water Act keep Section 404 as Location-specific and move the citation to Section 402 to Action-specific ARARs. Change "Water Quality Criteria" to "Dredge and Fill Criteria."</p> <p>Remove the citation to Section 403 - if discharge to a POTW is part of a remedy it should be Action-specific. Recheck the citation.</p> <p>Remove the Federal Endangered Species Act.</p> <p>Remove the citation to RCRA and the Clean Air Act.</p> <p>Remove the citation to the Human Health Risk Assessment.</p>
Table 2-1, p. 2	<p>Make the Hazardous Waste Management, Generator Standards applicable. Make Water Pollution Control applicable.</p>
Table 2-5B	<p>Table 2-5B and the table in Appendix B.2.2 present slightly inconsistent PRG values for chrysene. Two of the digits have been transposed for each value. The values should be reviewed, and the correct values should be inserted into both tables.</p>
Table 2-8	<p>Should this Table be in chapter 3 since chapter 2 doesn't discuss response actions?</p>
Ch. 4, p. 7, ¶4	<p>Change the third sentence to: "The ELUR would address sediment and soil contamination above RSRs but does not address exceedances of PMC."</p> <p>Remove the last sentence, since it is redundant with the first.</p>
Ch. 4, p. 7, ¶5	<p>Add a new last sentence: "Alternative 2 is not effective in addressing pollutant mobility in the contaminated media."</p>

- Ch. 4, p. 8, ¶2 Remove all but the first sentence.
- Ch. 4, p. 8, ¶3 Change the last sentence to: “Alternative 2 is not effective in addressing pollutant mobility in the contaminated media.”
- Ch. 4, p. 9, ¶3 In the first sentence insert “and sediment” after “affected soil.”
- Ch. 4, p. 14, ¶1 Change the second sentence to: “Alternative 3a is somewhat less protective than Alternative 3b since it relies on the long-term maintenance of institutional controls both under the scenario of the base remaining active and under the circumstances of a base closure. Alternative 3b is the most protective since it permanently removes all of the contamination from the Site.”
- Ch. 4, p. 16, ¶4 In the first sentence change “Alternatives 2 and 3” to “Alternative 3.”
- Insert a new second sentence: “Alternative 2 would provide limited effectiveness against human health risks but does not address pollutant mobility.”
- Ch. 4, p. 17, ¶3 Remove the second sentence, since institution controls and monitoring are not components of the criteria.
- Ch. 4, p. 17, ¶4 Change the third sentence to: “Alternative 2 would be effective in addressing human health risks through ELUR and monitoring but would not address pollutant mobility threats.”
- Table 4-2, p. 1 In the Synopsis for the Remediation Standard Regulations there is text discussing the “Approved Criteria for Additional Polluting Substances.” Is this a promulgated revision, in which case it should be included as an ARAR, or a guidance document which would be a TBC?
- Table 4-3, p. 3 Change Status of Hazardous Waste Generator Standards to “Applicable” and Water Quality Standards to “Applicable.”
- Table 4-4 Need separate Tables for Alternative 3a and 3b. The 3a table needs to include an ARARs for monitoring activities and the ELUR. The table for 3b should not include them.
- Table 4-4, p. 1 For both the Cancer Slope Factors and the Reference Dose the table 3a should include in the Action to be Taken: “In additional contact will be restricted through an ELUR.”

Table 4-4, p. 2

The CWA Section 402 citation should be moved to Action-specific ARARs.

Remove the citations for RCRA and the CAA.

For the Remediation Standard Regulation Action to be Taken for the 3a table state: "The alternative would eliminate exposure to contaminants in the soil through excavation and off-site disposal of soil and sediment exceeding Commercial Use standards. The alternative meets residential use standards through the use of ELUR and monitoring."

For the 3b table state: "The alternative would eliminate exposure to contaminants in the soil through excavation and off-site disposal. The alternative meets residential use standards."

Ch. 4, p. 3

Under Tiered Monitoring, the sampling requirements must be resolved, but should include surface water monitoring to track constituent migration from Site 20 to the Area A Wetland and Downstream areas.

Table 4-4, p. 4

Change the Status of the two water citations to "Applicable." Add:

Air Pollution Control	RCSA § 22a-174 1-20	Applicable	Pollutant abatement controls may be required. Specific standards pertain to fugitive dust (18b).	Emission standards for fugitive dust from excavation and restoration operations will be met with dust control measures. Emissions will be managed to comply with these standards.
-----------------------	---------------------	------------	--	---