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

October 13, 1999

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: Response to Comments dated July 27, 1999 on the Draft Feasibility Study for the Area A Weapons Center (Site 20) at the Naval Submarine Base - New London

Dear Mr. Evans:

EPA reviewed the response to comments for completeness in addressing the issues raised in our letter dated July 27, 1999. EPA divided our comments into two categories: (1) an overall evaluation of the technical adequacy of the responses in addressing concerns identified during the original review, and (2) specific comments that address individual responses to EPA comments. For brevity, an evaluation is only provided on responses that warrant further comment. The comment numbering system used in the Navy response is retained. "GC" stands for general comment, while "SC" stands for specific comment. Overall, I am disappointed that there are many outstanding issues on the Draft Feasibility for the Area A Weapons Center that need to be addressed. Detailed comments are provided in Attachment A.

In Table Appendix A.2 entitled "Selection of Soil Contaminants of Concern Exceeding Risk-Based Preliminary Remediation Goals," under the Future Resident scenario, benzo(b) fluoranthene is flagged to indicate that while the UCL exceeded the PRG, no individual sample exceeded the PRG. This note is not correct. According to the data summary table provided in the response to comments, the maximum detected concentration for benzo(b)flouranthene is 2.3 mg/kg which exceeds the Risk-based PRG of 1.27 mg/kg. Therefore, under the COC retained column, benzo(b)fluoranthene should be listed as YES instead of NO. Benzo(b)fluoranthene in soil should be retained for further evaluation.

Many inconsistencies remain in this FS regarding the identity of the COCs that need to be addressed during remedial activities. A summary table is needed showing the rationale for retaining or deleting each COC. In this table, comparisons to ARAR-based values, such as mobility criteria, risk-based values, such as direct contact criteria and risk-based PRGs, and background screening should be summarized. Separate summary tables are needed for soils and sediments since the criteria applied varies between the two media.

Thought should be given to the relationship of potential migration pathways from Area A Weapons to Area A Downstream. For example, cadmium concentrations were detected in sediment up to 29.5 mg/kg at Area A Weapons while the cadmium PRG for Area A Downstream sediment is 9.6 mg/kg. Discussion is necessary to decide whether the addition of the following remedial action objective "...minimize potential future overland transport of COCs from the three drainage areas into the Area A Wetlands and the Area A Downstream watercourses..." is sufficient to address this issue.

The prior EPA comment (GC #5) requested that the FS be substantially modified to present a clearer rationale for dismissing each of the treatment technologies presented in Section 3. The Navy response agrees to include a rationale for eliminating potential treatment technologies and process options. The revised FS will need to be reviewed to evaluate the adequacy of the response.

The response to general comment #5 is not correct. Excavation with offsite disposal does neither satisfies the NCP preference for treatment nor is considered treatment under the NCP. The preference would be met only if the Navy took some action to have the contaminants reduced in toxicity, fixed so that the toxic constituents are less mobile, or reduced in volume through separation or some other means. This preference may be met either on or offsite (*see also* specific comments 123 and 127).

In order to verify the 95 percent UCL of the mean calculations, complete analytical data for each chemical are needed in addition to the summary tables provided. Please include the analytical data set for the chemicals evaluated in this FS. Risks have been recalculated in the FS using supplemental data. If these data are presented in other sources, please provide clear citations in the FS for where the data may be found (*see* GC #8).

I look forward to working with you and the Connecticut Department of Environmental Protection to protect the Area A Weapons Center 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

Jennifer Stump, Gannett Fleming, Harrisburg, PA
Charles McLeod, EA Engineering, Newburgh, NY

ATTACHMENT A

Page	Comment
SC 2	In addition to the changes listed, please note that indeno(1,2,3-cd)pyrene also exceeded Pollutant Mobility Criteria. Also, for soils benzo(a)anthracene and benzo(b)pyrene exceeded their respective Residential Direct Exposure Criteria, and for sediment benzo(a)anthracene, benzo(b)pyrene, and indeno(1,2,30-cd)pyrene exceeded their respective Residential Direct Exposure Criteria.
SC 24	Please modify the Section 1.7 text provided with the response to comments as follows. "When the area of exposed soil, *i.e.* non-paved, at the Area A Weapons Center is factored into the HI calculations for the short-tailed shrew, the resulting values are less than 1.0." This "exposed soil" clarification is necessary because the area use factor is based on the size of the site and the home range of the shrew is one.
SC 43	Add at the end of the proposed revised text: "In addition, the Navy will consult with applicable federal and state officials concerning any endangered, threatened or special concern species that may be impacted by the proposed remedial action."
SC 47	If it is necessary to remove groundwater during the process of excavating either saturated soils or sediments, before such groundwater is discharged downgradient (and eventually into the Area A wetland) the remedy must meet federal and state water protection standards under the NPDES.
SC 63, 68, 90, 92, 94, 108, 109, 111	Change the third sentence of the Navy's response to: "Since there are no deeds currently for NSB-NLON, the ELUR would instead be recorded on the Base Master Plan. Furthermore, there will be a requirement written into the ELUR and the ROD that if the site is ever sold or leased, upon creation of the deed or lease, the ELUR would be recorded in accordance with applicable federal, state, and local standards." It is important that the Base Master Plan must direct all Base personnel to comply with the ELURs.
SC 90	Remove the last sentence since notices of the land use restrictions should be provided to base personnel as was done at the DRMO area (recording the restrictions in the Base Master Plan and putting up signs around the area of contamination).
SC 114	The adequacy of the response cannot be evaluated at this time because of significant changes proposed for the document. For example, it appears that beryllium is retained in this FS as a COC.

SC 115 It is unclear how taking PAH contaminated soil to an asphalt batching facility is more expensive than taking the material to a landfill. This remedy is used for other PAH contaminated soils in Region1. There are many facilities that would accept such material. There are no permitting issues with the process, since these are licensed facilities that are already permitted to take the material. Given the NCP preference for treatment the Navy should investigate this option more completely and provide more details on the specific costs and implementability issues in the FS.

Please include the response's explanation in the effectiveness and cost sections of the revised FS.

SC 122 The response must state the text will be modified to include "treatment or disposal" after "licensed."

SC 125 Table 4-2 should also state that the Chemical ARAR Connecticut Remediation Standard Regulations would not be achieved. Please make this change throughout the rest of the document.

SC 127 Since the response includes only a portion of the suggested text, please delete the word "onsite" from the first sentence of the response. Inclusion of this word is misleading because treatment is not a component of any of the three alternatives presented.

SC 129 With respect to water needing to be removed and treated, elsewhere in the text when describing the contaminated sediments in the ditches it was stated that they were always wet. Therefore some dewatering of excavations may be required and must therefore meet applicable federal and state standards.

If no water treatment is expected for Alternative 3 but there maybe construction of temporary diversions to prevent overland runoff from entering the excavation area, this should be included in the cost.

SC 130 The edits to costs should not only be explained in the text but also listed or noted in Table 4-1 and Appendix B. The present worth needs to be recalculated (*see* comment #143). Also, the text needs to state that no inflation allowance has been included, which skews the total present worth cost estimates as described in comment #144.

SC 132 Since Alternative 2 would result in PAH concentrations above PRG and above ICDEC/PMC it does not meet the ARAR. The size of the area is irrelevant and mitigating exceedances of PRGs is not sufficient unless the mitigation meets standards established in the regulations.

It is not apparent how ELUR/monitoring program could prevent worker contact with COCs in sediment. COCs in sediment in dry, exposed drainage channels exceed Connecticut Direct Exposure Criteria and PMCs.

The ELUR/monitoring program should specify that workers shall use mechanical means to maintain ditches and will wear appropriate personal protective equipment while performing maintenance.

SC 135 — The response is not adequate. Edit the response to state: "Would not address; however, existing asphalt cover reduces exposure to and migration of COCs under the asphalt cover."

SC 139 — The response is not adequate. An ELUR/monitoring program would not address all site risks, as is implied by this response. In addition to the migration of COCs (exceedance of PMCs), COCs in sediment in dry, exposed drainage channels also exceed Connecticut Direct Exposure Criteria.

SC 143 — The present worth calculations for the periodic operation and maintenance costs (five-year review costs) are not correct as presented in the June 1999 Draft FS. The correct present worth is $43,122, based on a 5% interest rate and zero inflation (as specified in the footnote in Section 4.2, page 4-3 of the June 1999 Draft FS). An initial investment of $43,122 at 5%, with $15,500 deductions made every five years, will result in a zero balance after 30 years. The addition of the periodic sampling and analyses costs for Alternatives 1 and 2 (for CERCLA monitoring) also need to be calculated correctly. Please include sample calculations to properly document the costs presented.

SC 144 — Annualized costs will be in present dollars because no allowance has been made for inflation or the effective interest rate includes a built in allowance for inflation. All the cost tables should note that either no allowance has been made for inflation or the assumptions for inflation have been incorporated into the effective interest rate. With no inflation allowance, alternatives with lower capital costs and higher future costs (Alternatives 1 and 2) will appear more favorable than they actually are (when inflation is present) and will have an artificial advantage over alternatives with relatively higher capital costs and lower future costs (Alternative 3).

SC 147 — The responses explanation of number and location of samples needs to be included in the text and noted in the cost tables.

Table 4-2, pp. 1 & 2 — There are no federal or state location-specific ARARs for the No Action Alternative.

Table 4-2, pp. 2 & 3	There are no state action-specific ARARs for the No Action Alternative.
Table 4-3	Need to change the title of the Alternative to "Institutional Controls and Monitoring." This should also be reflected in the text of the FS. Monitoring needs to be done if waste is left in place to ensure that there is no migration downstream to the wetlands and other potential receptors.
Table 4-3, p. 1	Under the Remediation Standard Regulations, Action to be Taken insert a new second sentence: However, the Alternative does not address exceedances of pollutant mobility criteria under industrial use." In the location-specific ARARs section, Action to be Taken - remove "during the 5-year reviews." Monitoring will need to be done on at least a yearly basis.
Table 4-3, p. 2	For the CT Inland Wetlands and Watercourses, Synopsis - remove the last sentence, since permitting requirements are not ARARs (other than meeting substantive requirements). Also at NPL sites EPA would make any determination under the statute rather than the Commissioner. Under Action to be Taken change the text to "Remedial action includes potential monitoring activities within contaminated wetlands and watercourses. The substantive requirements of the CT standards will be met to address any alteration of wetlands and watercourses." EPA recommended including the CT Endangered Species Act. This should be included if there are any known locations for listed species within the area or downstream in the Area A Wetland (was included under Alternative 3).
Table 4-3, p. 3	Remove the citations for the Hazardous Waste Management 22a-449(c)105 since no interim status facility is part of this remedy. Also remove the 22a-449(c) 110 citation since permitting requirements are not ARARs. Add the citation from the EPA supplied table for Connecticut Guidelines for Soil Erosion and Sediment Control (was included in Alternative 3).
Table 4-4, p. 2	For the CT Inland Wetlands and Watercourses, Synopsis - remove the last sentence, since permitting requirements are not ARARs (other than meeting substantive requirements). Also at NPL sites EPA would make any determination under the statute rather than the Commissioner. Remove the citation for the Coastal Management Act unless the area is within the designated Coastal Zone. If that is the case it should be added to Alternative 2

and the Federal Coastal Zone Management Act should be added to both alternatives.

Table 4-4, p. 3	The Hazardous Waste Management: Generator Standards are Applicable if hazardous waste is generated.
Table 4-4, p. 4	Remove the citations for the Hazardous Waste Management 22a-449(c)105 since no interim status facility is part of this remedy. Also remove the Land Disposal Restrictions since the on-site component of the remedy does not involve land disposal. Off-site disposal restrictions are not ARARs. Remove the 22a-449(c) 110 citation since permitting requirements are not ARARs. Remove the Air Pollution Control citations for Odors (odors not an ARAR issue) and Control of Hazardous Air Pollutants (since the remedy does not involve stack emissions from a treatment unit). Remove the Control of Noise citation because noise is not an ARARs issue.