UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I
JOHN F. KENNEDY FEDERAL BUILDING
BOSTON, MASSACHUSETTS 02203-0001

August 28, 1997

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: Responses to EPA's comments on the Defense Reutilization and Marketing Office Feasibility Study

Dear Mr. Evans:

Thank you for the opportunity to review responses to EPA's comments dated May 15, 1997 on the Defense Reutilization and Marketing Office ("DRMO") feasibility study ("FS"). Detailed comments are provided in Attachment A. The numbers of the comments in Attachment A correspond to the comment numbers provided in your August 4, 1997 letter.

As discussed with you on August 25, 1997, EPA is primarily concerned with your proposal to limit alternatives 3 and 4 to only four feet of excavation (*see* comment numbers 68, 69, 70, 72, 78, and 79). This proposal essentially eliminates all alternatives that will protect human health and the environment and comply with ARARs. As a result, the FS is considerably weakened as all alternatives retained for detailed analysis can only be considered as interim remedies. EPA strongly recommends that the Navy rescind their proposal to modify alternatives 3 and 4.

I understand the difficulties in evaluating groundwater treatment technologies when contaminants of concern are not well established. As a result, I believe that evaluation of groundwater treatment technologies should be postponed until an additional FS is developed (*see* comment numbers 1, 8, 29, and 33). As discussed, this additional FS should be referenced in the revised FS and in the *Groundwater Monitoring Plan*.

I look forward to working with you and the Connecticut Department of Environmental Protection on the forthcoming Record of Decision. Please do not hesitate to contact me at (617) 573-5777 should you have any questions.

Sincerely,

Kymberlee Keckler, Remedial Project Manager
Federal Facilities Superfund Section

Attachment

cc: Mark Lewis, CTDEP, Hartford, CT
Andy Stackpole, NSBNL, Groton, CT
David Peterson, USEPA, Boston, MA
Jennifer Hayes, Gannett Fleming, Harrisburg, PA
Corey Rich, Brown & Root, Pittsburgh, PA

ATTACHMENT A

No.	Comment
1	The response does address one of the major issues - groundwater contributions to ecological risk in the Thames River. Since this is an interim ROD, EPA recommends that there be a discussion of the criteria used to determine when further actions (including groundwater treatment technologies) will be implemented if the proposed monitoring identifies adverse harm from contaminants at DRMO. I understand that contaminants of concern must be identified before groundwater treatment technologies can be developed. Therefore, the revised FS must reference the decision-making framework that will be developed in either the *Groundwater Monitoring Plan* or the Record of Decision (*see also* Comment 29).
8	Please specify what changes will be made to the FS to satisfy EPA's concern. The FS should be revised to reference the *Groundwater Monitoring Plan* whenever monitoring specifics are provided in the text. We understand that the FS can not include definitive sampling frequency or analysis until the *Groundwater Monitoring Plan* is finalized. However, the revised FS must clearly indicate that the *Groundwater Monitoring Plan* will include surface water and sediment sampling from the three storm water outfalls. Monitoring of the storm water outfalls is independent of the proposed groundwater monitoring and should be discussed as a component of the monitoring plan.
29	There is insufficient data to conclude that groundwater is not a medium of concern. Additional groundwater monitoring is critical and will help determine whether groundwater is a medium of concern (*see also* comment number 33).
30	Delete the words "exposure" and "through monitoring" from the proposed RAO. Monitoring merely detects contaminants in the groundwater; it does not prevent exposure. Also, the FS needs to clearly state that the monitoring plan includes a step to proceed to a feasibility study for groundwater treatment technologies if groundwater monitoring data indicate unacceptable risk to ecological receptors in the Thames River.
35	It is unclear why PCBs are not considered a COC. PRGs for PCBs are identified on page 2-20, and Table 2-7. PCBs are used in the screening of alternative remedial technologies. Please clarify why PCBs are not considered COCs, but are retained throughout the FS.
47	If under Alternative 4, soil is only excavated to 4 feet and contaminated soils are left in-place, then the site will have to be recapped, surface/erosion control structures reinstalled, and institutional controls implemented to comply with ARARs. Please keep Alternative 4 as it was in the draft FS (*see also* comment number 54).
52	The EPA comment stated that future land use of the DRMO should be definitively identified, so that PRGs can be based on future land use. The Navy response states that a future residential scenario cannot be eliminated. While this may be the case, the text should be revised to specify which PRGs will be used at the site. For example, the text should state whether residential land

use PRGs will be implemented at this point or whether the intention is to implement industrial land use PRGs.

57 Limiting the excavation to four feet under Alternative will leave semi-volatile organics in-place. Is it cost effective to have thermal desorption for the limited volume of soil between the clean layer of fill from the removal action and the 4-foot depth? EPA strongly recommends that the original version of Alternative 4 in the FS not be modified.

EPA recommended that chemical fixation/solidification be evaluated without thermal desorption. However, the Navy feels that the two technologies must be used together due to maximum contaminant levels and reduction of contaminant toxicity. While the *maximum* concentration of PAHs may be outside the treatment range for chemical fixation/solidification, soils will be mixed before treatment resulting in a lower average concentration. The PAH concentration would probably be within the treatment range of chemical fixation/stabilization. While it is true that thermal desorption will reduce the toxicity of the treated soil, stating that thermal desorption provides better overall protection of human health and the environment owing to this reduction is misleading. The last component of Alternative 4 is offsite disposal of treated soil. Whether soil is subjected to both technologies or just chemical fixation/stabilization, it will be disposed offsite. It is the offsite disposal component that provides protection of human health and the environment, not the thermal desorption.

68 In order for the Navy to limit the depth of the excavations to only four feet it will be necessary to analyze how the new option will comply with the NCP. Specifically, digging down only four feet will leave the majority of the contaminated soil in place. Although, limited excavation may partially address exposure issues for the construction worker, it does not address potential future groundwater contamination nor potential ecological risks to the Thames River. Also limited soil excavation will not satisfy Connecticut Soil Remediation Standard ARARs, unless the cap is restored over the site and institutional controls/monitoring are implemented.

With respect to the work at Building 31, this may not be a good example of a limited excavation considering the site is not immediately adjacent to the River as is the DRMO site. The Navy should consider the experience of the removal action at DRMO in evaluating the influence of groundwater infiltration into excavations. EPA believes that it is possible to remove all of the contamination at DRMO and recommends that Alternative 4 remain unchanged (*see also* comment numbers 77, 78, 82, and 87).

69 It is unclear whether the process of excavating "hot spots" will release contaminants into the groundwater. The process of excavation should not be compared to the present circumstance of groundwater passively flowing through relatively stabilized fill material. Under the proposed excavation scenarios involving significant disturbance of the site there is a strong likelihood that contaminants will be released into the groundwater. This would create a greater exposure risk to workers and the requirement to test and treat groundwater before it is pumped from the excavations and discharged (*see also* comment numbers 68, 70, 72, and 79).

71 If "hot spot" excavation is to be only to four feet, significant wastes may be left in place. This should be addressed in detail in the discussion of Long-term Effectiveness and Permanence. As previously mentioned, EPA strongly recommends that the proposal to limit the depth of excavation to four feet be rescinded.

73 Based on the experience of the removal action at DRMO it appears fairly likely that some groundwater would accumulate in excavations down to the low tide level (4 feet). The cost estimate should consider the cost of constructing a temporary wastewater treatment facility if the Town of Groton will not accept additional wastewater (*see also* comment to Comment 68).

74 Wasn't contaminated soil already removed down to the high tide level as part of the previous removal action? As described in the Navy's response, under the proposed scenario the last foot of soil down to the low tide level could only be excavated during a very limited period during the day at low tide and then the excavation would have to be backfilled before the tide rose again. How would this affect the cost of implementing this alternative?

80 There should be a discussion of any additional risk associated with leaving contaminated soil in-place below 4 feet (*see also* comment number 69).

88 Any discharge into the Thames River must comply with federal/state discharge ARARs. This should be discussed in more detail in the revised FS.