



**TETRA TECH NUS, INC.**

55 Jonspin Road • Wilmington, MA 01887-1020  
Tel 978.658.7899 • Fax 978.658.7870 • www.tetrattech.com

N62661 AR.001452  
NAVSTA NEWPORT RI  
5090 3a

C-NAVY-08-01-1502

August 2, 2001

Project Number N7538

Mr. Paul Kulpa  
Department of Environmental Management  
Office of Waste Management  
235 Promenade Street  
Providence, Rhode Island 02908

Reference: CLEAN Contract No. N62472-90-D-1298  
Contract Task Order 0282

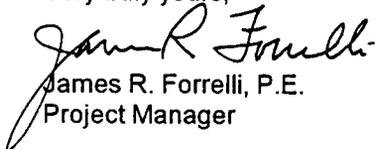
Subject: Response to RIDEM's Comments on the Draft Feasibility Study Report  
Old Fire Fighting Training Area, Naval Station Newport, Newport, Rhode Island  
Received in RIDEM letter to James Shafer of the U.S. Navy June 8, 2001

Dear Mr. Kulpa:

The Navy has reviewed the comments provided by RIDEM on the Draft Feasibility Study Report for the Old Fire Fighting Training Area site. The responses to RIDEM's comments are provided in the attachment to this letter (four copies). RIDEM's comments are presented verbatim in italic type followed by the Navy's response in standard type. Comments contained in the EPA's cover letter have been itemized and presented as general comments. The report is being revised to address the comments.

Please contact Jim Shafer of the Navy or me if you have any questions about this transmittal or would like to discuss this matter further.

Very truly yours,

  
James R. Forreli, P.E.  
Project Manager

JRF:rp

Enclosure

- c: J. Shafer, NORTHDIV (w/enc. - 3)
- M. Griffin, NAV STA Newport (w/enc. - 2)
- K. Keckler, EPA (w/enc. - 2)
- C. Powell, RIDEM (w/enc.)
- K. Finklestein, NOAA (w/enc.)
- M. Imbriglio, NAVSTA/RAB (w/enc. - 5)
- K. Andersen, CRMC (w/enc.)
- D. Egan, TAG (w/enc.)
- J. Stump, Gannet Fleming (w/enc. - 2)
- G. Tracey, SAIC (w/enc.)
- J. Trepanowski/G. Glenn, TtNUS (w/enc.)
- C. Race, TtNUS (w/enc.)
- File N7538-8.0 (w/enc.)/File N7538-3.2 (w/o enc. - 2)

**ATTACHMENT**  
**Responses to Comments from the**  
**Rhode Island Department of Environmental Management**  
**Old Fire Fighting Training Area Draft FS For**  
**Soil and Marine Sediments (April 2001)**  
**Comments dated June 8, 2001**

**General Comments**

**No.**      **Comment/Response**

1.      Page ES-2, Background,  
Paragraph 1, Sentence 5

*Comment: This sentence states that intermediate and low risk are acceptable from an ecological standpoint. Please provide the criteria for high, intermediate, and low risk so the reader can understand what the impacts are.*

Response: The text will be revised as suggested.

2.      Page ES-3, Summary of Soil Alternatives,  
Paragraph 1, Sentence 3

*Comment: This sentence states that no land use restrictions would remain or be implemented. It is implied that there are currently land use restrictions. RIDEM is not aware of any land use restrictions on this property, but if there are please provide a copy of them for our files.*

Response: The words "remain or" will be deleted.

3.      Page 1.2, Section 1.3, Old Fire Fighter Training Area Background Information  
Whole Section

*Comment: In the chronology discussion for the site the report should note the following:*

*The Remedial Investigation was initiated when construction activities in 1987 unearthed petroleum contaminated subsurface soil.*

Response: The text will be revised as suggested.

4.      Page 1.12, Section 1.8, Fate and Transport  
Paragraph 1.

*Comment: ...in the soil in the central portion of the site. These contaminants will continue to leach.....*

*Please insert the following statement into the above:*

*...in the soil in the central portion of the site. Petroleum saturated soils and petroleum floating on the groundwater was also found at the site. These contaminants will continue to leach.....*

Response: Previous investigations will be reviewed for indications of petroleum saturated soils and petroleum floating on the groundwater, but they are not documented in the current RI. The text will be revised as appropriate.

**Response to RIDEM Comments**  
**OFFTA Draft FS**

5. Page 1-12, Section 1.9, Human Health Risk Assessment  
Paragraph 5.

*Comment: The risk assessment considered exposure under a residential scenario, recreational and visitor scenarios...*

*Please modify the above as follows: The risk assessment considered exposure under a residential scenario (not equivalent to RIDEM residential scenario), recreational (considered a limit restricted recreational scenario under RIDEM's regulations) and visitor scenarios...*

Response: The text will be revised to address this comment, although the suggested wording may not be used.

6. Page 1-13, Section 1.9, Human Health Risk Assessment  
Paragraph 1.

*Comment: The section of the report notes that the various risk assessments for surface, and subsurface soils, and sediments slightly exceeded or exceeded RIDEM's risk range. This would imply that RIDEM concurred with the risk assessments and the results of this assessment slightly exceeded or exceeded DEM requirements. This is not the case as the assessments did not conform to RIDEM risk assessments criteria. In order to avoid confusion this section of the report should note that the chemical specific RIDEM standards were exceeded at the site.*

Response: The suggested change would seem more appropriate to be incorporated in Section 2.2.1, Identification of Media of Concern. Section 1.9 is just a summary of the Baseline Risk Assessment from the RI, and no conclusions are drawn in this section. The text simply presents the risk and risk levels.

7. Page 2-4, Section 2.21, Identification of Media of Concern, Soil  
Paragraph 2.

*Comment: Both carcinogenic and noncarcinogenic risks were below EPA risk range and RIDEM's benchmarks for recreational receptors and excavation workers.*

*Please modify the above as follows: Both carcinogenic and noncarcinogenic risks were below EPA Risk range for recreational receptors and excavation workers. The concentrations of contaminants are above the State's standards for unrestricted recreational use of the site.*

Response: Text will be revised as suggested.

8. Page 2-5, Section 2.21, Identification of Media of Concern, Soil  
Paragraph 2.

*Comment: ...of 1.0 for any target organ.*

*Please add the following sentence to the above: ...of 1.0 for any target organ. The RIDEM unrestricted recreational standard was exceeded on the shoreline.*

Response: The risk numbers will be checked, and the text will be revised as appropriate.

**Response to RIDEM Comments  
OFFTA Draft FS**

- 9 Page 2-5, Section 2.21, Identification of Media of Concern, Groundwater Paragraph 8.

*Comment: "The groundwater levels do not exceed RIDEM GB Groundwater Objectives for any contaminant, although RIDEM does not provide values for SVOCs, pesticides or metals in GB aquifers. Because there are no exceedances of the GB groundwater objectives and federal MCLs are not applicable, groundwater is eliminated as a media of concern."*

*The State's GB groundwater numerical standards are designed to address volatilization into structures. These standards are not designed to be protective of other human health exposure scenarios or discharges to sensitive environments. These cases require the development of site specific cleanup standards (the Navy may elect to use GA standards as default standards). Therefore, the above should be modified as follows:*

*The groundwater levels do not exceed RIDEM GB Groundwater Objectives for any contaminant, although RIDEM does not provide values for SVOCs, pesticides or metals in GB aquifers. The State's GB groundwater numerical standards are designed to address volatilization into structures. These standards are not designed to be protective of other human health exposure scenarios or discharges to sensitive environments. These cases require the development of site specific cleanup standards.*

Response: Please note that the Navy proposed to EPA and RIDEM that the aquifer would be evaluated against GB standards in a meeting held on October 5, 1999 and the EPA agreed. In Section 4.0 of the OFFTA revised Draft Final RI, submitted in October 2000, groundwater was compared to GB standards. Neither EPA nor RIDEM provided any comments on the revised Draft Final RI that took exception to the Navy's evaluation of the aquifer against GB Groundwater Objectives.

The Navy proposes updating the groundwater risks by preparing a streamlined risk evaluation using the 1997 data and evaluating the data under a standard residential exposure scenario. This would include tap water ingestion, dermal contact, and inhalation during showering pathways and estimate noncancer and cancer risks for a residential child and a residential adult. Tables would be prepared to document COPC selection, distributional analysis, exposure point concentrations, toxicity factors, and cancer and noncancer risks, along with a brief narrative discussing the risks and methodologies. The risk evaluation would be included as a part of the FS. The Navy proposes that a meeting be held to review the input parameters for each receptor and pathways of exposure before the risk evaluation is performed. If unacceptable risk is identified under the residential use scenario then the Navy will present the risks, a comparison to GB criteria and MCLs, and propose limited alternatives for groundwater. Considering the salinity of the groundwater, the classification of the groundwater, and the lack of projected future use, the limited alternatives that the Navy will evaluate will include the need to establish institutional controls and/or monitoring in conjunction with the soil remediation alternatives.

10. Page 2-5, Section 2.21, Identification of Media of Concern, Groundwater Paragraph 8.

*Comment: This section of the report discusses the groundwater objectives for the site. The report should list, in addition to any chemical specific objective, the requirement for no free product in the groundwater at the site.*

Response: The text will be revised as suggested.

**R s p n s e t R I D E M C m m e n t s**  
**OFFTA Draft FS**

11. Page 2-9, Section 2.2.2.3, Development of Remedial Objectives for Soil Whole Section.

*Comment: Although not stated, the report should note that either the lower of the RIDEM Direct Exposure Standards or the Sediment PRGs will be applied to the beach.*

Response: The sediment PRGs address direct contact with sediment on the beach under a recreational scenario. The RIDEM Direct Exposure Standards are based on a residential scenario and are not appropriate to apply to the sediment on the beach. Therefore, no changes will be made.

12. Page 2-12, Section 2.2.2.4, Remedial Action Objectives for Soil Whole Section.

*Comment: This section of the report discusses the remedial objective for soil. In addition to the chemical specific objectives the report should include the objective of no free product in the soil. This requirement applies to both the vadose and saturated zones.*

Response: The text will be revised as suggested.

13. Page 2-13, Section 2.2.3.1, Identification of Chemicals of Potential Concern in Sediment.

*Comment: As stated in previous correspondence the State has not accepted the Ecological Risk Assessment performed at the site and does not concur with the process used to develop the Preliminary Remediation Goals for the sediments. In an effort to allow work to proceed on the project the OWM elected not to enter into dispute resolution over these documents or processes. Instead the OWM would simply review the final product, that is the actual chemical specific PRGs. It was the OWM's understanding that the Navy agreed to develop PRGs for all of the contaminants at the site, independent of the processes which would limit the final number of PRGs, (as an illustration, PRGs eliminated due to collocated contaminants which have lower PRGs values). A review of the PRGs submitted reveals that PRGs were eliminated from consideration. Please, as previously agreed, provide a complete list of PRGs for the site.*

Response: The Navy is preparing the information requested for all contaminants at the site, and this information will be distributed to the reviewers as a separate transmittal, along with a description of the limitations associated with them. It should be noted that the Navy does not intend to use such values; development and evaluation of remedial alternatives will be based on the PRGs provided in the Draft FS report.

14. Page 2-13, Section 2.2.3.1, Identification of Chemicals of Potential Concern in Sediment.

*Comment: In addition to the specific chemicals of concern the report should include a PRG for TPH. The TPH standard of 500 PPM may be applied at the site.*

Response: The text will be revised as suggested.

15. Page 2-19, Section 2.2.3.4, Remedial Action Objectives for Sediment.

*Comment: In addition to the objectives listed, the report should include the objective of no free product in the sediment.*

Response: The text will be revised as suggested.

**Response to RIDEM Comments  
OFFTA Draft FS**

16. Page 3-6, Section 3.2.2.2,  
Limited Action (Deed Restrictions), Bullet 1, Sentence 2

*Comment: It is stated that deed restrictions, by themselves are not reliable because they are difficult to enforce. Please be advised that deed restrictions are routinely used not only in Rhode Island, but also across the nation as a form of remediation. Enforcement of the deed restriction depends on an effective monitoring program. At Naval Construction Battalion Center, across the Narragansett Bay, such a program is in place for sites where deed restrictions have been applied.*

Response: The text will be revised to remove the statement that deed restrictions are not reliable. The discussion will be revised to explain that any land use controls (LUCs) would be implemented in accordance with Department of Defense Guidance on Land Use Controls Associated with Environmental restoration Activities for Active Installations dated January 17, 2001.

17. Page 3-7, Section 3.2.2.2,  
Limited Action (Deed Restrictions), Bullet 2, Last 2 Sentences

*Comment: For the next to last sentence which states that restrictions are typically difficult to implement please revise the sentence to indicate that in Rhode Island deed restrictions are voluntarily placed on the property by the owner. For the last sentence, please explain what TSDFs and permits have to do with deed restrictions. The sentence seems out of place.*

Response: The text will be revised as suggested. The reference to TSDFs and permits will be removed; they were originally included because availability of TSDFs and permits is one of the CERCLA evaluation considerations under Implementability.

18. Page 3-10, Section 3.2.2.3,  
Containment (Impermeable Cap), Bullet 1, Sentence 5

*Comment: This sentence states that capping does not alter the natural flow of groundwater through the subsurface. Please remove this statement, as an impermeable cap will lower the water table under the cap thereby affecting the natural flow of groundwater.*

Response: Text will be revised as suggested.

19. Page 3-12, Section 3.2.2.4,  
Removal (Bulk Excavation), Bullet 1, Sentence 3

*Comment: It is noted that negative pressure enclosures could be used to control airborne contaminants. The site is 5.3 acres in size. Please explain what type of enclosure would be used.*

Response: Either additional information will be provided on negative pressure enclosures or the text will be deleted. It is not anticipated that an enclosure would cover the entire 5.3 acres.

**Response to RIDEM Comments  
OFFTA Draft FS**

20. Page 3-39, Section 3.3.2.4, Removal, Hydraulic Dredging.

*Comment: "Hydraulic dredging in the nearshore area has been eliminated from further considerations due to the nature of the substrate."*

*The report has eliminated hydraulic dredging in the nearshore area due to the need for mechanical equipment to remove subsurface debris. Please provide the information that was evaluated to ascertain that the substrate at the site was not amendable to hydraulic dredging. The OWM is aware that the immediate beach area contains debris. This area may be easily excavated by conventional earth moving equipment.*

Response. Additional information on hydraulic dredging and its applicability to this site will be provided as suggested.

21. Page 3-41, Section 3.3.2.5,  
Disposal, Bullet 2

*Comment: It is stated that landfills may not be available with the capacity to handle the volumes from this site. It is estimated there will be 49,500 cubic yards of material from the on-shore activities and 9,670 cubic yards from offshore activities. It would seem reasonable to assume that a landfill, of any significance could handle more than 60,000 cubic yards. Please provide a list of the landfills investigated with their remaining capacity.*

Response: Information of landfill capacity will be further examined. Changes will be made to the text as appropriate.

- 22.a Pages 3-45 & 46, Section 3.3.2.7,  
Aquatic Habitat Restoration (Natural Restoration of the Eelgrass Habitat),  
Effectiveness,  
First Sentence

*Comment: "The natural recovery potential for eelgrass indirectly affected by a remedial action in the nearshore area appears favorable." In the previous section (Characteristics of the Habitat, 3rd Paragraph) it is stated that further characterization of the extent and viability of the eelgrass beds is still required. If further characterization of the eelgrass beds is needed then explain how one knows that natural recovery potential is favorable*

Response: The first passage noted in the comment above presumes that viable eelgrass stands are present within the area that would be impacted by the proposed action. The second merely points out that prior to an action, the presence and health of eelgrass in that area should be confirmed so that the Navy will know what type of recovery should be anticipated. This will be clarified in the draft final FS.

22. b. Page 4-18, Section 4.4.3~  
Soil Alternative 3: Removal and Disposal, Paragraph 1

*Comment: It is stated that the three soil mounds are assumed to be non-contaminated. Prior to disposal, samples of each pile should be taken to insure this is the case. Please include this in the description of this alternative as well as alternative 2 for soil.*

Response: The text will be revised as suggested.

**Response to RIDEM Comments  
OFFTA Draft FS**

23. Page 4-20, Section 4.4.3,  
Soil Alternative 3: Removal and Disposal,

*Comment: The estimated volume of soil requiring removal at the Old Fire Fighter Training Area is approximately 50,000 cubic yards. The estimate cost for this option is approximately eight million dollars. The approximate volume of contaminated soil which required removal at the Melville North Landfill was 100,000 cubic yards. The estimated cost to remove and dispose of this soil was approximately eight million dollars. Please evaluate the cost estimates to ascertain the reason for the discrepancies in the cost of the projects.*

Response: The cost estimates will be reviewed.

24. Page 5-5, Section 5.2.3,  
Sediment Alternative 3, Paragraph 4, Sentence 3

*Comment: This sentence states that a trackhoe would be able to reach most of the areas from the bay haul road. Please state how contaminated sediment would be reached when the trackhoe could not reach it.*

Response: The pre-design investigation will determine the limits of excavation and if a trackhoe could reach all areas. Text will be added to describe the contingencies if that is not possible.

25. Page 5-5, Section 5.2.3, Sediment Alternative 3,  
Paragraph 3, Sentence 6

*Comment: Please explain why R-3 stone was used to create the haul road at McAllister Point, but at OFFTA R-6 stone is the more appropriate material.*

Response: Based on a conversation with the remediation contractor for McAllister Point, R-6 stone was specified for the haul road. The final selection of the material will be made during remedial design.

26. Page 5-5, Section 5.2.3, Sediment Alternative 3,  
Paragraph 4, Sentence 1

*Comment: This sentence states that it is not anticipated that segregation of the sediments will not be required as a result of contaminates. It should be noted in this sentence that sediments will be segregated by size. The same also applies the Alternative 4, Page 5-8, Paragraph 4.*

Response: The text will be revised as suggested.

27. General Comment on Alternative 3

*Comment: Please explain what happens to the R-6 stone used to create the haul road when it is no longer needed.*

Response: The stone from the haul road will be removed and recycled or disposed of as appropriate. The text will be revised to provide a better description of the process.

**Response to RIDEM Comments  
OFFTA Draft FS**

28. Page 5-8, Section 5.2.4, Sediment Alternative 4,  
Paragraph 4, Last Sentence

*Comment: If removal of the top two feet of sediment assures contaminant removal then please explain why in paragraph 2 (same page) 15 borings are needed to determine the extent of sediment contamination.*

Response: The borings will be taken during pre-design investigation to define the horizontal and vertical extent of the contamination. Removal of two feet is assumed for the purposes of the FS to be used for volumes and costs. The assumption of two feet is based on existing sampling and is described in Section 2.3.2.

29. Page 5-8, Section 5.2.4,  
Sediment Alternative 4, Paragraph 5, Sentence 8

*Comment: This sentence states that a barge would be used to dredge areas not reachable by the trackhoe. Based on Figure 5-3 the maximum distance from the shoreline that would require dredging is 140 feet. Assuming a maximum 50 foot reach of the trackhoe and assuming the 50 feet closest to the shore could be dredged from the shore, it would seem that with proper placement of the haul road that barge dredging should not be needed. Please explain why it is felt there is a possibility that barge mounted dredging may be necessary.*

Response: The barge is a contingency if the pre-design investigation indicates the extent of contamination is larger than expected. Clarifying text will be added.

30. Page 5-9, Section 5.2.4,  
Sediment Alternative 4, Last Paragraph

*Comment: It is proposed to backfill the dredged areas with a mix of clean backfill materials, which will be selected and placed to assist in natural restoration of the aquatic community that was destroyed by the dredging action. In order for RIDEM to comment on the adequacy of the backfill materials, specifications would have to be provided. Therefore, RIDEM will comment on the backfill materials when the design is submitted for review.*

Response: Noted.

31. General Comment

*Comment: For alternatives 2, 3, and 4 it is noted that monitoring would occur in years 1 through 5 and then at five year intervals after that. Please be advised that depending upon the results of the monitoring the frequency could change. This should be noted in the report, but for estimating purposes the monitoring frequency can be left as is.*

Response: Clarifying text will be added.

**Response to RIDEM Comments  
OFFTA Draft FS**

32. Page 5-27, Section 5.5.4, Sediment Alternative 4 Dredging and Disposal, Cost

*Comment: The estimated cost to dredge the contaminated materials is based upon dredging via a haul road. As cost is a modifying factor in the FS selection process the report should evaluate other alternatives to haul road dredging, such as, dredging via a barge, barge and land dredging, or behind a temporary Portadam. Cost for these alternatives should also be included in the report.*

Response. The CERCLA FS process is to select a representative technology for a technology type for use in assembling and evaluating alternatives. Dredging via a haul road is the technology evaluated for sediment removal. No additional evaluations or costs for these other dredging options will be provided in the FS, but they still could be selected during remedial design.

33. Table 2-2, Location Specific ARARs

*Comment: If the National Historic Preservation Act is an applicable ARAR then the Rhode Island Historical Preservation Act should also be an ARAR.*

Response: The citation will be added as suggested.

34. Table 2-2 Chemical Specific ARARs

*Comment: The Rhode Island Air Quality Regulations should also be an ARAR.*

Response: The citation will be added as suggested.

35. Table 2.8, Selection of Soil COPCs.

*Comment: During remedial investigation activities a variety of oils were observed at the site (heavy oils, hydraulics, fuel oils, oil sludges, etc). Samples of the various oil types were not collected and analyzed (certain efforts were designed to visual determine the extent of contamination and or only the predominant oil type was tested, etc). Therefore, please modify the COPC table to include the full list of RIDEM regulated Method 1 SVOCs.*

Response: The COPCs are based on samples taken at the site, and these oils were not sampled. Even if the additional SVOCs were added to the COPC table, they would be screened out in COC selection, resulting in no net change to the document. No changes will be made.

36. Table 4-4 – 5-15, Assessment of Chemical Specific ARARs and TBCs.

*Comment: Please include the following citations for the soil and sediment ARAR evaluation:  
Requirement: State of Rhode Island Oil Pollution Control Regulations  
Citation: Chapters 46-12, 42-17.1 and 42.35 of the General Laws of Rhode Island  
Status Relevant and Appropriate  
Synopsis of Requirement Addresses releases of oil into the waters of the State.  
Action to be Taken to Attain ARAR Remedial efforts will be designed to insure that releases to waters of the State have been addressed.*

Response: The citations will be added as suggested.

**Response t RIDEM Comments  
OFFTA Draft FS**

37. Figure 5-1, Sediment Alternative 3

*Comment: If the intent of this alternative is to retain the eelgrass beds then please explain why the haul road goes through the eelgrass beds. In addition, given the limited reach of the trackhoe it would make more sense to move the haul road closer to the shore, even if excavation of the sediments is partially carried out from the shore.*

Response: The existence and locations of the eelgrass beds are unknown at this time. The assumption is that 25% of the hatched area on the figure contains eelgrass, and the design of the road would be to avoid the beds to the extent possible. An eelgrass survey is being performed in July 2001, and its results will be used in the Draft Final FS and the remedial design. The final location of the road will be determined during the remedial design, and could include moving the haul road closer to the shore.

38. Appendix D

*Comment: With respect to the 5-year reviews, please define the acronym "LOE" and "ODC".*

Response: The text will be revised as suggested.

39. Appendix D, Cost.

*Comment: This section of the report includes a cost break down for the various options. At the end of the estimate is a list of references for each cost item. As was done in previous evaluations, the report should indicate which reference applies to a specific cost item, (that is each line item should have a reference number designating what the estimate was based on.*

Response: The estimates will be revised as suggested.

40. Appendix D, Cost.  
Soil Removal and TSDf Disposal

*Please address the following comments concerning this alternative:*

- a. *Comment: Line Item 1.1 The report proposes performing a preinvestigation to further delineate the site and determine the lateral extent of contamination. This site has been extensively investigated. In addition, during removal actions the excavation itself provides far more useful information concerning the extent of contamination than a boring program (unless the boring program will be located in areas that are not going to be excavated). Accordingly, unless the last provision applies, the OWM recommends that the Navy not perform this preinvestigation.*

Response: The borings to be installed during the pre-design investigation will be used to fill any data gaps and more precisely define the areas to be remediated. The required number of borings may be less than the assumed 20, but the costs are included in the estimate to allow the flexibility of collecting any data needed for an effective remedial campaign.

- b. *Comment: Line Item 2.1 The estimate includes a cost for mobilization /demobilization of equipment. The report is a public document, therefore, please indicate what this pertains to.*

Response: The description of mobilization and demobilization is provided on the Assumption page 1 of 2 under the Capital Cost Assumptions, line item 2.

**Response t RIDEM Comments  
OFFTA Draft FS**

- c. Comment: *Line Items 2.2-2.6, and 3.5. These items include cost for office trailers, and construction of decon pad. On the site is a former day care center, and a parking area which can be employed in lieu of or may be modified to be part of these structures. The OWM recommends that the Navy explore the use of the existing facilities.*

Response: The use of these existing facilities will be explored during remedial design. However, the costs for the temporary facilities is included in the cost estimate in case the others are unavailable or unsuitable for use.

- d. Comment: *Line Item 3.1 The report contains a line item to clear and grub the site. The site is a grassed field with a number of small trees. The report is a public document, therefore, please explain what is involved with this operation.*

Response: There are some trees at the site that will need to be cleared. The costs included in the estimate are based on the Means catalog for minimal clearing and should provide an estimate in the required +50% to -30% CERCLA cost range.

- e. Comment: *Line Item 3.8 This line item includes a cost for the maintenance of the soil staging area. As the maintenance cost is equivalent to one half of the construction cost, please explain what this line item entails.*

Response: Maintenance of the staging area includes maintaining run-on and run-off controls, possibly shifting access locations as the project progresses, dust control, keeping the area organized, etc.

- f. Comment: *Line Item 6.1 The report includes a line item for excavation/load material. Please explain how this cost was estimated.*

Response: The line item was estimated using the Means catalog.

- g. Comment: *Line item 6.2 The report proposes renting organic vapor analyzers, specifically a flame ionizer detector (FID). FID is a general-purpose field instrument that can be used at this and other sites. Accordingly, the Office of Waste Management recommends that the Navy compare the rental cost to the purchase cost for this unit*

Response: The decision to buy versus rent will be made during the remedial design. Often, the government does not want to own excess equipment once a project is over.

- h. Comment: *Line Item 6.3 The report notes that it will cost \$ 124,740 to transport the soil from the excavation to the soil staging area, which is located on site. The entire site is approximately 5.5 acres. Please explain how this value was calculated.*

Response: The estimate was made using the Means catalog for using a dump truck to haul and dump the soil over a specified distance. Multiple dump trucks will be used. These values will be checked and revised if necessary.

- i. Comment: *Line Item 6.4. The report notes that it will cost \$ 72,000 to dump excavated soil into the soil staging area. Please explain how this value was calculated.*

Response: The estimate was made using the Means catalog and includes placing and maintaining the stockpile.

**Response to RIDEM Comments  
OFFTA Draft FS**

- j. *Comment: Line Item 6.5 The report notes that 218 samples will be collected and analyzed. Please indicate what is the function of these samples and how they differ from Line item 6.6, Stock Pile material sampling/analysis (which entails the collection of 27 samples).*

Response: Line item 6.5 includes the costs for sampling the soil segregated for disposal at the solid waste landfill. Line item 6.6 includes the cost for sampling the soil segregated for the TSDf, which requires additional analyses.

- k. *Comment: Line Item 6.9 Please explain what a trench box is and where it will be used at the site.*

Response: A trench box is used to hold open the sidewalls of an excavation. The shoring and excavation methods will be selected during remedial design, but costs were included for the common use of the trench box.

- l. *Comment: Line Item 7.3 The estimated cost to pump out the tanks is approximately eight time the transportation and disposal cost for this operation. Please explain.*

Response: The line item includes the labor and equipment for the time to pump the tanks.

- m. *Comment: Line item 8.4, 8.5, and 8.6 This section deals with the T&D for soils from the site. Please include a breakdown of the cost for this operation, disposal/transportation cost. Please provide documentation for the transportation cost.*

Response: The estimates provided by the disposal sites included transportation and disposal as a single price per ton.

- n. *Comment: Line Item 10.1, 10.2 Please indicate whether the unit value of 100 feet for the wells refers to an individual well or the total for all four wells, (that is four wells at 25 feet per well).*

Response: It is a total, i.e., four wells at 25 feet per well.

- o. *The report is a public documents, therefore please include a definition of G&A.*

Response: A definition will be provided as suggested.

- p. *Comment: Please explain why the health and safety monitoring will cost an additional 337,000 on top of the estimated cost for this operation. In addition, please note what this operation entails.*

Response: In a feasibility study estimate, it is common to estimate the cost of health and safety as a percentage of the total cost of the project. Monitoring includes air monitoring, medical monitoring, and personal protective equipment to prevent exposure of onsite workers.

- q. *Comment: The overhead and other direct cost is approximately sixty percent of the total direct cost of the project. The report should include and explanation justifying this value*

Response: The estimate was performed using bare labor and equipment costs. A construction firm adds overhead and other direct costs into their rates. These rates are typical and are reported in the Means estimating catalog.