



DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND, MID-ATLANTIC
9742 MARYLAND AVENUE
NORFOLK, VA 23511-3095

IN REPLY REFER TO

5090
15/Code OPNEEV/JLC

August 29, 2008

Ms. Kymberlee Keckler, Remedial Project Manager
Federal Facilities Superfund Section
USEPA Region 1
1 Congress Street
Suite 1100 (HBT)
Boston MA, 02114-2023

Dear Ms. Keckler:

SUBJECT: FEASIBILITY STUDY - REVISION 1 FOR MARINE SEDIMENTS,
DERECKTOR SHIPYARD (SITE 19); NAVAL STATION, NEWPORT,
RHODE ISLAND

The Navy is submitting this letter in order to address all outstanding comments regarding the draft final submission of the subject document.

You will recall that the Navy sent an initial response to EPA comments in a letter dated May 21, 2008. In that letter, the Navy responded to some of the comments provided in your March 24, 2008 letter while maintaining that the remaining specific comments were not appropriate and should not have been submitted at this stage of the process. Since then, however, the Navy agreed to respond to all comments after a series of telephone conferences held on June 23, 2008 and July 16, 2008 to try and reach resolution of the issues.

The Navy recognizes that there are still some unresolved issues outstanding. To that end, the table that was provided on August 11, 2008 as part of the minutes of the July 16, 2008 conference call is again being provided. This table summarizes those comments from both USEPA and RIDEM where resolution has been achieved and also where further discussion is still required.

The Navy is available to discuss these responses at your convenience.

If you have any questions regarding the enclosed documents, you can contact me by phone at (757) 444-0825 or by email at james.colter@navy.mil.

Sincerely,



JAMES L. COLTER, P.E.
Remedial Project Manager
By direction of the
Commanding Officer

Enclosures

Copy to:

RIDEM, Paul Kulpa

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Gannett Fleming, Paula Loht

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- B. Cap: to NAVFAC

SUMMARY OF COMMENTS ON DERECKTOR DRAFT FINAL FS, REVISION 1
DOCUMENT DATE: FEB 2008
NAVSTA Newport, Newport RI
Updated 7/16/08

Issue Topic	USEPA Com # (3/25/08)	RIDEM Com # (4/23/08)	Navy position	Discussion 6/23/08, 7/16/08	Resolution 6/23/08, 7/16/08
Carriers cannot hinder cleanup	General Comment 1		In accordance with Navy policy, sediments will not be remediated until the sources have been addressed. Since the Ship movement may affect the contaminant concentrations, the PDI will be conducted after the ships are moved.	Currently schedules coincide with PDI and carrier movement. The Navy will not conduct the PDI until the carriers are moved in accordance with Navy Sediment Policy. The PDI work plan could proceed once the FS is completed in advance of the ROD. A map will be included in the Final FS showing the location of the carriers as they are currently berthed.	Comments Resolved
Location of Ships on map and schedule for departure	General Comment 7		Navy shares concern for resuspension, 2004 sediment evaluation notes traffic and suspension. Schedule for PDI and carrier movement is anticipated to match	EPA requests clarification in the FS that sediments exceeding the PRGs will be removed, and not just the areas shown, nor limited to one foot in depth. EPA requests confirmation sampling after dredging to assure completion.	Use of the 1 ft depth is for costing purposes only. FS will be revised to state that for the dredging alternative, sediments will be removed to the PRG. Also, confirmation sampling will be added to the dredging alternative.
Additional removal of sediment below 1 foot	General Comment 7		Need clarification on comment	Discussed 7/16/08	This was discussed 7/16/08. Tetra Tech will compare data from Quinn et al. 2004 and compare it to the data used in the Ecological Risk Assessment. Also discussed; check to see if sediment stations that showed toxicity had the higher TBT concentrations.
TBT is not adequately addressed	General Comments 3, 4, 6	4	TBT was sampled for and is addressed in the Final ERA		No Resolution
Stillwater basin is not adequately characterizes	General Comment 4	4	Stillwater basin was sampled, and characterized in ERA (1999), and in a separate evaluation report called the Stillwater Basin Evaluation (SBE). Also described in the FS. Sediment COCs <PRGs in this area. No additional characterization is warranted.	Discussed 7/16/08, not resolved. EPA and RIDEM requested additional sampling in SBE. Navy notes that four samples were taken here, with none exceeding PRGs. The SBE was conducted in 1998 to evaluate growth potential. No Comments received from the regulators on that report. Navy objects to re-sampling previously investigated areas that didn't exceed PRGs. Navy suggests EPA or RIDEM collect samples if they now believe more investigation is needed.	
Asbestos Testing for disposal of dredged materials	General Comment #8, also specific comments #2, 14, 17, 36b, 40, 42, 57b, 60, 65, 72a, 74b, 77a		This is not an FS issue. Navy has not proposed preferred remedy. Final disposition of asbestos-contaminated material shall be part of remedial action work plan (sampled for disposal if dredged/part of monitoring if left in place).	EPA is certain that Asbestos is a CERCLA contaminant. Lagging fallen off the pipes is a CERCLA release. Therefore NESHAPs is an ARAR, and the Asbestos in sediment policy dated 2004 is a TBC.	J. Colter to confer with counsel and NAVFAC HQ to confirm.
Risk from asbestos in sediment and at shoreline	General comment #8, specific comments #2, 14, 17, 61, 65b, 68b, 69b, 77a.		Asbestos in sediment should be addressed with other contaminants in sediment. Separate PRG seems inappropriate.	See above. EPA wants to identify Asbestos in the FS as a CERCLA contaminant. EPA says that PRG determined for Blackburn & Union site can be used at this site (human health only, no risk to eco receptors). EPA requests Navy accept this PRG and apply it to the site.	J. Colter to confer with counsel and NAVFAC HQ to confirm. A statement should be added into the FS stating that keeping any asbestos in sediments wet and keeping it from becoming airborne will meet the ARAR.

SUMMARY OF COMMENTS ON DERECKTOR DRAFT FINAL FS, REVISION 1
DOCUMENT DATE: FEB 2008
NAVSTA Newport, Newport RI
Updated 7/18/08

Issue Topic	USEPA Com # (3/25/08)	RIDEM Com # (4/23/08)	Navy position	Discussion 6/23/08, 7/16/08	Resolution 6/23/08, 7/16/08
PRGs	General 3, 5, also #15, 22, 61,	1, 3, 4	PRGs were finalized in 2002 without dispute.	Discussed 7/16. EPA requesting more detail documentation be included in the FS explaining why TBT is not a concern. RIDEM believes shellfish ingestion rate used for subsistent fisherman should be used to represent recreational case and wants Navy to remove 10X multiplier that was used for shellfish ingestion PRGs.	It was agreed that the revised FS would provide a better description of how the TBT was dropped out of the PRG development. It was not determined if a PRG for TBT should be added. Agreed to add a figure to the FS to summarize the ERA findings. Agreed that all parties should go back and review PRG document and other previous documents so that we can come to an informed decision on any changes to be made.
Usability of the underwater cad cell	36c, 41b, 52, 53, 57		Navy is awaiting regulatory determination regarding usability of the CAD cell	EPA requested Tetra Tech (Tt) provide them with the acceptability standards that RIDEM/CRMC provided TI for the FS. EPA will contact their offsite rule coordinator to see if the facility is acceptable.	An alternative needs to be chosen in order to develop the ROD. Current indications from RIDEM are that the CAD cell can be used to dispose of dredged sediment material. If dredging is chosen, and then it is determined that the CAD cell is not usable, this would constitute a significant change which would have to be addressed with an ESD. The EPA is checking on the usability of the CAD cell.
Comments suggest that sediment is RCRA - characteristic or RCRA - listed waste.	General Comment 2, Also #50a, 50b, 55a, 55b, 68a, 70c, 71b		Used sandblast grit is not a listed waste. Sediments with specific contaminants is not automatically identified as RCRA waste. RCRA is used to regulate disposal, and risk is used to determine if remediation is needed.	Sediments would be considered listed waste if the contamination can be linked to an "identified source" or by evidence that a listed process existed onshore. Sediments would be considered characteristic waste if TCLP analysis shows leachability or it can be assumed characteristic if total concentration exceeds the standard by a factor of 20.	A study was conducted to locate sandblast grit offshore from Dereecktor Shipyard by SAIC in 1986. This study concluded that of the 17,200 square feet of seafloor surveyed, sandblast grit was present on 17%. The material was dispersed throughout the sedimentary matrix, and the total amount of material on the seafloor could not be determined." The sandblast grit was lost over the pier side, or from the dry floating docks when they were submerged. (Halliburton NUS May 1993).
Applicability of the flood plain regulations to Remedial Action	67b, 70a, 70c, 75b		Flood plain regs do not apply to actions conducted in the subtidal areas. All actions are to be taken place in subtidal areas, which are not flood plains.	Flood plain regs are tied to the remedy. If working within the subtidal area, the regs do not apply. Regs only apply if work is to be conducted in areas above the low tide line.	FS will clarify that all work will be conducted within subtidal areas and that no work will be performed in this area.
NRWQC are ARARs?	65a, 66, 69, 74a, 74b		Water Quality criteria were not used to develop PRGs for porewater so should not be ARARs. WQC were used at other sites for Porewater PRGs, which are not established for this site.	WQC would be applicable if they were considered in the PRG development, particularly in regards to equilibrium partitioning.	The principals of equilibrium partitioning of contaminants from sediment to water were used for the development of the PRGs. Thus Navy will concur that WQC are chemical specific ARARs for the marine sediments.

SUMMARY OF COMMENTS ON DERECKTOR DRAFT FINAL FS, REVISION 1
DOCUMENT DATE: FEB 2008
NAVSTA Newport, Newport RI
Updated 7/16/08

Issue Topic	USEPA Com # (3/25/08)	RIDEM Com # (4/23/08)	Navy position	Discussion 6/23/08, 7/16/08	Resolution 6/23/08, 7/16/08
FS Costs	5		FS Costs are order of magnitude costs for comparison only and are meant to represent a +50% to -30% accuracy.	Briefly discussed 7/16/08	Navy understands RIDEM disagreements with FS cost estimates. RIDEM stated on 7/16 that they have tasked their TAT contractor with developing cost estimates for comparison w/ Navy's.
Structural restrictions to access sediment under piers On shore Discussions	36a, 41 1, 10, 11		Sediment under piers will be sampled as part of PDI and addressed as needed. On shore info requested in the general comment to the revised draft (see Navy letter 9/14/07, Attachment A, page 2 paragraph 2)	No discussion	Agreed not to include specifics of the PDI in the FS. EPA recinds Comment 11 regarding Section 1.4. Agreed to keep Section 1.4 in the FS. Applicability of MCLs to site groundwater can be addressed in the on-shore documentation.
Need clarification on request for I.C.s when these are already included	46, 47, 49		Requests institutional controls. text appears to be correct as written, need clarification.	Discussed need to keep section 1.4. Discussed applicability of MCLs to the on site groundwater, because EPA does not recognize RIDEMs methods for establishing drinking water standards and zones.	Agreed. FS will be updated to include an "IC" portion to all applicable alternatives.
Add citation that DSY dumped sandblast in ocean - uncertain if this was proved or speculative.	18		Need to discuss relevance of this comment. issue for the CSM?	Clarified that I.C.s are needed if any COC > PRGs remain in place (under piers or inaccessible areas) Discussed with RCRA issues. Uncertain if sandblast grit was conclusively found in the sediment, however it is highly likely to be present. Does this make all the sediment RCRA Listed waste?	A study was conducted to locate sandblast grit offshore from Derecktor Shipyard by SAIC in 1986. This study concluded that of the 17,200 square feet of seafloor surveyed, sandblast grit was present on 17%. The material was dispersed throughout the sedimentary matrix, and the total amount of material on the seafloor could not be determined. The sandblast grit was lost over the pier side, or from the dry floating docks when they were submerged. (Halliburton NUS May 1999). This information will be added to the FS. On 7/16/08, agreed that the determination of whether the sediment is listed waste would be based on visual identification of sandblast grit in the sediment. If not observed, RCRA classification would be based on characteristic only.
PDI needed for monitoring?	33, 86		No PDI is needed for the limited action alternative	EPA requests that a PDI-type effort be included for the limited alternative #2. However, EPA on record as stating that they do not feel that Alt 2 is compliant with ARARs but not making that a major comment since it is their opinion that the Navy will not choose Alt 2 as the preferred remedy.	FS will add a PDI-type effort for Alternative 2.

SUMMARY OF COMMENTS ON DERECKTOR DRAFT FINAL FS, REVISION 1
DOCUMENT DATE: FEB 2008
NAVSTA Newport, Newport RI
Updated 7/16/08

Issue Topic	USEPA Com # (3/25/08)	RIDEM Com # (4/23/08)	Navy position	Discussion 6/23/08, 7/16/08	Resolution 6/23/08, 7/16/08
Limited action is not natural attenuation - wording	24		Text seems correct as written, this is monitoring only, not natural attenuation.	Text seems to suggest that this is a natural attenuation alternative.	It will clarify that this alternative is for monitoring only and is not a natural attenuation alternative.
Use of dragging as a commercial fishing method is not addressed	35		Fishing is banned under institutional controls, so the method of fishing is implied.	Dragging nets on the bottom is not legal in inshore areas.	The FS will clarify the commercial fishing practices that are permitted in the area.
Scope of the PDI - Should be more extensive.	38, 40, 82b	6	Scope of the PDI can be discussed later at the work plan stage.	Work plan for PDI could begin soon, before the ROD. EPA feels that the PDI needs to be extensive and wants to hold signature of the ROD pending approval of a PDI work plan. Navy wants to avoid a Phase 3 RI thus delaying progress to the next CERCLA step but if a Phase 3 RI is conducted, then a PDI will not be developed to support the design; the design would be based on the Phase 3 RI data.	Agreed not to include specifics of the PDI in the signature of the ROD pending approval of a PDI work plan. Further discussion 7/16/08 - EPA requests PDI cover the whole cove, not just areas where PRGs were previously exceeded. No resolution on this, but FS should be able to be completed with a cost item for the PDI.
Concur	3, 4, 6, 7, 8, 9, 13, 20, 28, 29, 30, 31, 32, 59, 70b, 70d, 71a, 71c, 72b, 73b, 76, 77b, 78, 80, 81, 83, 84		Concur	No discussion	Agreed with FS being revised with text suggested in EPA comment.
Concurrence with intent, text to be adjusted for clarity	5, 12, 16, 19, 21, 23, 24b, 25, 26, 27, 34, 37, 39, 43, 44, 45, 48, 51, 54, 56, 58, 62, 63, 64, 67a, 70a, 72c, 73a, 75a, 75c, 79, 82a, 85		Concur in principal, but wording may be adjusted for context and clarity.	Example text on each comment will be submitted separately.	Holding for approval of suggested text.

Yellow shading indicates follow up is needed

Green shading indicates that the issue is resolved

**RESPONSES TO COMMENTS FROM USEPA
DRAFT FINAL FEASIBILITY STUDY REVISION 1 FOR MARINE SEDIMENTS,
FORMER ROBERT E. DERECKTOR SHIPYARD
COMMENTS DATED MARCH 24, 2008**

GENERAL COMMENTS

1. *As EPA has stated previously, the presence of the two aircraft carriers at Pier 1 cannot interfere with the investigation or remedial action for Derecktor Shipyard. These ships occupy three-quarters of the area north and south along Pier 1 that could interfere with supplemental sediment sampling necessary to complete the required pre-design investigation. (These two carriers occupy the exact area formally occupied by the two dry docks operated by the Derecktor Shipyard.) Furthermore, when these two carriers finally leave Coddington Cove they will undoubtedly create a significant disturbance of the sediment at and around the piers. This disturbance could expose deeper contaminated sediments. It is therefore essential that the area be monitored after any proposed remedy and after the carriers have moved from the site to ensure that cleanup goals have been met.*

Response: Currently, schedules for the PDI and the planned carrier movement coincide. The Navy will not conduct the PDI until the carriers are moved in accordance with the Navy sediment policy. A map will be included in the Final FS that shows the location of the carriers as they are currently berthed.

2. *Information available from RIDEM indicates that the Derecktor Shipyard was cited for numerous environmental violations for on-shore and off-shore activities including dumping of contaminated sandblast grit directly into the bay from shipyard operations and associated dry docks. EPA has previously provided evidence of numerous RCRA violations and spills. As requested by EPA's earlier comments, this information needs to be discussed to explain how the marine sediments became contaminated.*

Response: The conceptual site model provided in Section 1 of the FS report addresses the manner in which contaminants are understood to have been introduced to the marine sediments. This information has been reviewed and is considered complete enough for the FS.

3. *Review of Appendix B indicates that tributyltin (TBT) was not addressed when preliminary remediation goals (PRGs) were calculated. Therefore, the FS does not identify a PRG for TBT. However, there are several historical sampling locations with substantial TBT concentrations despite the fact that TBT was not analyzed at many of the historical sampling locations (according to the data in Appendix A). TBT is a significant concern at this site given the operations and waste handling. Therefore, a PRG for TBT should be calculated. Further discussion is required regarding this potentially significant omission in the FS because of its impact on site risk calculations and remediation area footprints.*

Response Risk-based PRGs were established and agreed to by the USEPA in 1998 through the development and review of a separate document, provided as Appendix B of the FS. This is a finalized document after technical review by EPA and their contractors. There was no PRG established for butyltin. The agreed-upon approach was to calculate PRGs for only those contaminants that were determined to be the main drivers of risk and encompassing the most area, with the understanding that the other contaminants would be automatically addressed when the PRGs were met for the main risk contaminants. The Navy does recognize that the RIDEM has never agreed to this approach, however, the Navy and EPA agreed to the approach in an effort to move the project forward from the RI Phase to the FS Phase. To date, RIDEM has not invoked any former dispute over this decision. Navy does not believe that any new information exists that would justify revisiting the PRG development issue.

Please note that some data were inadvertently left out of Appendix A. Appendix A will be revised to include previous data including results from TBT sediment analysis data which were used in conducting the marine ecological risk assessment.

4. *Thousands of cubic yards of sandblast waste were previously stored at the Derecktor Shipyard in the immediate vicinity of Building 42, which abuts the still water area. Based on the historical sampling results, no sampling for TBT has been conducted in the still water area and no sampling for any contaminants of concern (COCs) were conducted at the still water area in 2004. While EPA recognizes that a paucity of life in this area may be attributable in part to a lack of water circulation or the nature of the sediment, the sediments should be sampled for chemical contamination. Without appropriate sampling data to confirm the absence of TBT (or other COCs) from the sediments in this area, EPA cannot wholly accept the explanation of why no life exists in the still water area. It is essential to ensure that the Stillwater basin area has not been inadvertently overlooked so that we can aver that any proposed remedies will be protective of human health and the environment.*

Response: Sediments in the stillwater basin area were sampled for chemical contamination during previous investigations. EPA provided correspondence on the draft 2004 sediment investigation work plan which stated "The sample locations proposed are adequate for purposes of collecting current sediment chemistry data from a subset of previously sampled locations." The same letter also stated: "The proposed chemical analysis are adequate" (USEPA 8/4/04). As noted above, Appendix A is incomplete but will be revised.)

The Stillwater basin area was evaluated as a part of the risk assessment report, and a follow-up investigation (Stillwater Basin Evaluation Report, Tetra Tech NUS, Inc. December 1998). At that time, the report indicated that life does exist in this area, although the information did suggest that the Stillwater area is not an optimum habitat. The report went on to state that no significant stress was evident compared to reference areas. The Navy will point out again that this was a conclusion that was previously agreed upon, and revisiting that issue now seems counterproductive.

During the Conference call held 7/16/08, it was agreed that the scope of the PDI would be laid out during a DQO meeting. In accordance with Navy policy, the PDI would not be scoped until after the ROD is completed.

5. *As stated previously, EPA does not agree that solely high probability ecological risk areas warrant remediation. The intermediate ecological risk areas may also require remediation if they contain areas that exceed cleanup goals. Additional investigation of the intermediate risk areas during the pre-design investigation will confirm the areas for remedial action. Please edit the FS accordingly.*

Response: The high probability risk areas are not singled out for remedial actions as EPA's comment is suggesting. Rather, PRGs were established based on the risk assessment and for those chemicals that were found to drive the risk and have a potential adverse impact on the greatest areas. The areas that exceed those established PRGs will be the areas that require remedial actions. As stated on several occasions, the Navy recognizes that additional fieldwork is necessary to refine the areas requiring remediation and can either go backwards and conduct a Phase III RI or move forward and conduct this work as part of the remedial design as currently proposed. Please note that as stated during the teleconference held on March 26, 2008, the time difference between the end of an RI Report and the start of any remedial design is several years (FS, PRAP, ROD) thus the need for a Pre-Design Investigation (PDI) to gather current information for which to base an accurate design.

As agreed during the RPMs meeting on May 16, 2007 and documented in Navy's Responses to Comments dated September 14, 2007, if the project is allowed to progress into Remedial Design, the PDI will include a preliminary step of re-sampling of all of the previous sample locations to identify stations exceeding PRGs, then additional sampling would be conducted in grids around stations that exceeded PRGs. As stated in the circulated notes for the November 14 meeting: "It was agreed by all that the PDI would be

identified as a task in the FS, the description of the proposed investigation would be kept very brief, and that the exact scope would be defined at a later time." The definition of "at a later time" would be during the development of the work plan to support the PDI.

6. *The following reference cites sampling data for Coddington Cove that are not consistent with the data presented in Appendix A or with the interpretation of risk. If the data were collected by the Navy, it should be presented in the FS. If not, consideration should be given to these data when developing plans for the pre-design investigation. The citation and an abstract for the investigation are provided below:*

Tributyltin in environmental samples from the Former Dorektor Shipyard, Coddington Cove, Newport RI.

Authors: Wade, T. L., Sweet, S. T., Quinn, J. G., Cairns, R. W., King, J. W.

Author Affiliation: Geochemical and Environmental Research Group, Texas A&M University, 833 Graham Rd., College Station, TX 77845, USA.

Document Title: Environmental Pollution, 2004 (Vol. 129) (No. 2) 315-320

Abstract: Tributyltin (TBT) was detected in all 24 surface sediment (top 2 cm) samples collected from Coddington Cove, Newport, RI. TBT surface sediment concentrations ranged from 32 to 372 ng Sn/g with a mean concentration of 146 ng Sn/g. Analyses of selected core sections detected TBT in at least the top 18 cm at all 7 stations where cores were collected. No consistent TBT concentration trends with depth for these cores suggest mixing is an important process in the sediment column. In one core (station 28), TBT was found in the 76-86 cm section at a concentration of 141 ng Sn/g; thus sediments are a significant sink for TBT. However, sediment mixing processes can enhance releases of bioavailable TBT. Mussels, clams and fish from Coddington Cove contain TBT at concentrations ranging from 9.2 to 977 ng Sn/g. TBT concentrations in lobsters were below the detection limit (<6 ng Sn/g). Based on available screening criteria, TBT concentrations in Coddington Cove sediment is likely to be having an adverse effect on the biota at some locations.

It is unclear whether either some site data were not presented in the FS or if there are gaps in the characterization. As a result, it was challenging to assess whether the areas targeted for remediation have adequately addressed all contaminated areas within the Stillwater basin and in areas historically exhibiting toxicity. EPA therefore recommends that the Navy perform a full suite of chemical analysis (i.e., metals, organics, and TBT) in these areas to evaluate whether any contaminants in excess of the PRGs are present and looks forward to reviewing the PDI in this light.

Response: The data cited in the publication above was collected as part of the earliest steps of the Risk Assessment for this site. However, some data had limited use due to depths from which samples were collected. The usable data were used in the marine ecological risk assessment and in the formulation of the PRGs. It is assumed that EPA concluded at the time that these data were properly used, since the Risk Assessment and the PRG documents were completed and finalized with EPA review and approval (reference EPA letter dated 12/21/98). Additional discussion on this topic would require reopening the ecological risk assessment and the PRG documents, which were finalized in 1997 and 1998, and thus would seem to require a document dispute.

A summary of the TBT data was provided in the letter summarizing the conference call 7/16/08. This summary shows the concentrations measured in the different areas and depths.

As stated in the response to comment 3 (above), the Navy notes the omission of data from Appendix A and has revised the Appendix accordingly. Therefore, the Navy contends that there are no gaps in the characterization for the purposes of selecting a remedy.

7. *To better understand current restrictions existing at the site, the FS needs to better describe the location of the ships berthed at Pier 1 and include a schedule for removing these ships from the site. This information is critical to evaluating the feasibility of implementing any of the proposed final remedies for the site. As stated above, significant resuspension is likely when these or other large ships traverse the harbor so removal of sediment to a greater depth than one foot may be necessary to obtain a protective remedy.*

Response: Please refer to the response to comment 1 above. The location of the ships will be added to a figure. The depth of the sediment removal (if removal is selected) will be established when the PDI is conducted. The effect of regular ship traffic on sediments was evaluated in the sediment investigation report (2004). While it is recognized that moving the aircraft carriers may produce more than usual sediment suspension, the FS does not need revision to consider the uncertainty of this sediment suspension unless the presence or departure of the ships is a part of any of the alternatives.

PLEASE NOTE: The FS should not be considered a design plan for removal or a recommendation for action. It is an evaluation of implementability, effectiveness and cost for different alternatives with basic assumptions common to all those alternatives.

8. *As noted in the Soil Sampling & ACM Report dated December 2007, Amosite (asbestos) has been detected on the base. EPA is concerned that the asbestos used around the steam pipes within Derecktor Shipyard, including on the piers, could have been released into the sediments. Accordingly, EPA must be assured that any sediments removed from Derecktor Shipyard that may be contaminated with asbestos are tested and disposed properly. Given that there has been new information submitted to EPA since the draft FS was issued, it is not appropriate for EPA to either invoke formal dispute resolution on the draft final FS or issue a letter of concurrence as required by Section 7.6 (e)(4) of the FFA. Instead, EPA proposes to grant the Navy 90 days to respond to this letter, meet to resolve any outstanding issues, and issue a revised draft final FS by June 30, 2008.*

Response: The Navy acknowledges that asbestos may be present in sediments under the piers. However, this issue is currently being addressed by NAVSTA Newport personnel and Peter Kudarauskas from the USEPA Region I Office of Environmental Stewardship's Toxics and Pesticides Unit. Therefore, it is inappropriate to address this issue at this time under the IR Program for Site 19 Sediments. USEPA issued NAVSTA Newport a Request for Information which NAVSTA Newport is currently responding. If it is determined that removal of sediments with asbestos is required, NAVSTA Newport and NAVFAC Mid Atlantic will determine if the timing is such that the sediments can be removed during the same timeframe as the implementation of any remedy for IR Site 19 sediments. Therefore, no changes to the FS is needed to address this issue other than including asbestos analysis as a disposal parameter for sediments removed as a part of the remedial action.

9. *EPA is pleased that most of the risk comments were addressed in this version of the FS. Specifically, EPA requested an evaluation of the PRGs implementing EPA's Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens for carcinogens with a mutagenic mode of action (i.e., PAHs) to demonstrate that the PRGs are protective of early life exposure. The qualitative evaluation provided on pages 2-6 and 2-7 of the draft final FS is sufficient for this site because PRGs were developed for future adult subsistence fisherman. Risks from child subsistence fisherman scenario are usually not quantified because it is unlikely that a child of a subsistence fisherman would only consume fish fillets/shellfish from a site as the sole source of dietary protein.*

Response Comment noted.

EPA Specific Comments

No. & Page

Comment

1.p. ES-1

Please edit the last sentence in the first paragraph as follows: "Some of the environmental concerns"

Response: The passage will be deleted.

2. p. ES-2, ¶1

As you know, there was recently an EPA CWA/CAA enforcement action regarding asbestos at NSN. Was there asbestos released into the water in the area addressed by this FS? If so, there needs to be an evaluation of whether the released asbestos poses a risk to human health (for example, could asbestos now be present in intertidal areas where there could be exposure to people). Even considering that asbestos in wet sediments would not likely be immediately releaseable to the air, someone tracking asbestos contaminated sediment could become exposed once the sediments dry. EPA's Guidance Clarifying Cleanup Goals and Identification of New Assessment Tools for Evaluating Asbestos at Superfund Cleanups takes a more conservative approach for determining asbestos risks from previous practice that set asbestos cleanup levels for 1% asbestos in soils as set by the Clean Air Act's NESHAPs. Soil/sediment asbestos levels may not clearly measure the risks posed by asbestos. Instead risks should be assessed based on an evaluation of whether human activities potentially could generate sufficient airborne asbestos to pose a risk. At a least one site in Region 1 with historic releases of asbestos, even in an area that had been remediated and was tested at non-detect levels under the standard test for determining asbestos in soil, activity-based sampling did document low-levels of airborne asbestos. Subsequently, a risk-assessment determined that the level of asbestos released into the air did not pose a risk under CERCLA. The concern at Derecktor is that releases of asbestos from the steam system over time into the marine sediments may have deposited sufficient quantities of asbestos (combined with currents and tidal action) that asbestos is present along the shoreline at levels that may pose a risk to human health under CERCLA.

Response: NAVSTA records indicate that asbestos-containing pipe lagging likely has been released to the water under piers 1 and 2. However, it is highly unlikely that this material could be now present in the intertidal areas of the site in quantities that could pose a threat to human health. Please bear in mind that most of the shoreline area of the site is a vertical sheet pile wall, with water depths generally greater than 30 feet. The only place within Coddington Cove where human exposure to asbestos in intertidal sediments could occur is the south coast, located well away from the release area. Further, as described in Section 1.3.4 of the FS, the hydrographic survey of the cove performed in 1995 indicated that the area around the piers is a depositional zone and that the predominant flow pattern in Coddington Cove is counter-clockwise. Therefore any asbestos pipe insulation deposited in the pier area is unlikely to be entrained in the flow within the cove and deposited along the south coast.

It is clear that the only way to prove that there is no risk from asbestos present in sediment along the south coast is to sample the shoreline sediments and conduct an evaluation of the possibility for any asbestos present to pose a health risk. If the EPA believes that a potential risk is present at the shoreline (approximately 2,000 feet to the south) that would warrant such an investigation and assessment, the Navy will comply and conduct this effort,

complete with documentation as required under the IR program. However, the Navy does not believe this is time or money spent wisely. If such an investigation is required in order to finalize the FS it will result in an extended delay in completion of the FS. If EPA believes that further investigation of potential asbestos risks along the shoreline is needed, Navy recommends that it be conducted as a separate investigation, outside the scope of the FS.

The Navy awaits EPA's recommendation on how to proceed.

3. p. ES-2 *Please edit the first two sentences on this page to correct the context as follows: "Marine sediment sampling conducted between 1997 and 1999 identified PCBs, PAHs, and metals in sediments throughout Coddington Cove with higher concentrations present in surface sediments near the shoreline and piers." Since Appendix A does not include any data collected between 1997 and 1999, please check these dates or provide the missing data in Appendix A. An appropriate presentation of historical data is needed for the FS.*

Response: Appendix A of both the Draft and Draft Final FS reports inadvertently did not include all site data. It lacked all organic contaminant data and some inorganic data collected for the marine sediment at this site. The entire data set for this site will be presented in the final document.

4 p. ES-4 *Please edit the last sentence on the page to read: "Based on 2004 data only, approximately"*

Response: The comment is correct, and this revision can be made without changing the conveyed message of the paragraph. The requested change will be made.

5. p. ES-4, ¶5 *Add a new third sentence: "There will be at least annual monitoring of compliance with institutional controls."*

Response: The subject paragraph describes Alternative 2 (Limited Action). The Navy accepts the intent of the comment, but suggests the following sentence be added instead: "Monitoring of institutional controls would be performed at least annually to verify the ongoing enforcement of institutional controls."

6. p. ES-5, ¶1 *In the last sentence insert: "5-year reviews, yearly compliance monitoring of institutional controls, and long-term..."*

Response: For Alternative 3, the requested change will be made. However, the benefit of institutional controls may be limited in this instance. See the response to first part of Comment 36 below for additional discussion of this issue.

7. p. ES-5 *Please edit the second and third sentences in Alternative 4 to read: "...Based on 2004 data only, three areas near the shoreline of Coddington Cove (Figure E-1) would be affected by this action, resulting in approximately 32,893 cubic yards of sediment to be dredged..."*

Response: Concur. This revision will be included.

8. p. 1-1, §1.0 *Please revise the third paragraph as follows: "This FS was developed to address only off-shore contamination issues at the site. Hot spot removals for the on-shore portion of the site were conducted previously (Foster Wheeler, March 2001). Any further remedial actions that may be required for the on-shore portion of the site will be addressed in separate documents."*

Response: Concur. This revision will be included.

9. p. 1-10, §1.3.3 *Please correct the reference in the last paragraph.*

Response: Concur. This revision will be included.

10. p. 1-10, ¶6 *Change to: Groundwater under the on-shore area of the Site is regulated under the federal Safe Drinking Water Act as suitable for drinking water. This site is located within an area that has been highly urbanized since the 1950s; much of the site is fill, and is within 200 feet of the ocean. Groundwater at the site is tidally influenced."*

Response: The statements provided in the subject paragraph are correct as stated. Additionally, replacing the existing paragraph with the suggested text would be misleading. It is unlikely that under current law, the groundwater at the site could be used for drinking water due to the state designation as a GB aquifer and local ordinance controlling drinking water supply wells. Making the requested change would imply that groundwater at the site can be used for drinking water, and therefore imply the need for a risk assessment to include groundwater ingestion risk scenarios, and even remedial action for groundwater so that it can be used for a water supply. Since this is not the case, the suggested revision is considered misleading and will not be added.

The comment was discussed on July 16, 2008 and it was determined that the groundwater information would be addressed in the on-shore documentation. Thus this section will be revised to simply cite the classifications and characteristics. No jurisdictions or goals pertaining to groundwater will be provided in this FS.

11. p. 1-13, §1.4 *Remove this section, since this report concerns the marine sediments only (unless the area is still a source of contamination to the marine sediments).*

Response: The inclusion of this section was requested by USEPA in during their review of the revised draft document in 2007. Considering that a conceptual site model is necessary, and considering EPA's general comment no. 2 above, this section should remain and will not be removed.

The Comment was discussed on July 16, 2008 and it was agreed that the section should remain.

12. p. 1-15, §1.5 *Please delete the last two sentences or revise them to state "Hot spot removals for the on-shore portion of the site were conducted previously. Any further remedial actions that may be required for the on-shore portion of the site would be addressed in separate documents."*

Response: Because the subject matter for the section cited does not include the on shore portions of the site, it is more appropriate to strike the two sentences without replacement. Therefore, the sentences will be removed.

13. p. 1-16, §1.5.1 *The discussion under metals indicates that elevated copper concentrations were detected at sample locations V-4 and V-9. However, review of Appendix A sediment analytical results does not indicate any analyses for copper at these locations. Please supplement Appendix A with the pertinent analytical results for sediment.*

Response: Appendix A will be replaced, as stated in the response to specific comment 3 above.

14. p. 1-16, §1.5.1.1 *See comment for page ES-2, ¶1 concerning potential need to sample sediment for asbestos.*

Response: See the response to same comment.

15. p. 1-20, §1.5.2 *The discussion for the still water basin does not mention that none of the samples collected from this area were analyzed for tributyltin and that the waste sandblast was stockpiled immediately adjacent to the still water basin, likely resulting in contamination of the basin with tributyltin and other COCs. Therefore further evaluation of the still water basin will be required before this area can be considered to be unaffected by Derecktor Shipyard operations.*

Response: The still water basin was sampled early in the investigation process, and was again evaluated at the end of the review process for the ecological risk assessment report. The evaluation included a work plan, field investigations and reports, all reviewed and overseen by the USEPA and their contractors. Butyltins were measured in surface sediment samples collected from the Stillwater basin in 1995, as part of the ecological risk assessment. Sediment samples collected from the still water basin were considered during the ecological risk assessment process. The ecological risk assessment found areas of elevated risk in some areas of the site and was used to calculate PRGs. The PRGs were not exceeded in the still water basin. Thus the Navy has concluded that the still water basin needs no remedial action.

Two options are available to address this issue: 1) revise the PRGs to include a wider range of contaminants, including TBT or 2) include the still water basin area in the area to be investigated during the pre-design investigation and compare data to existing PRGs. The Navy requests additional discussion on this topic if the EPA opts to pursue the issue.

16. p. 1-22, §1.5.3 *The top paragraph states that sediments were analyzed for PCBs and that the data is in Appendix A. However, Appendix A contains no sediment data for PCBs or any other organics. Please provide the missing data. Also, please discuss that SEM/AVS analysis has limited value in assessing resuspended sediments.*

Response: In regards to the first portion of the comment, please refer to the response to comment no. 3 above, and note that the appendix will be revised for the final document. In regards to the second portion of the comment, this point shall be added to differentiate the suspended sediments from the bedded sediments.

17. p. 1-24, §1.6 *Discuss potential asbestos risks to human contact with intertidal sediments.*

Response: Please refer to the response to comment 2 above.

18. p. 1-33, §1.8.1 *Please supplement this discussion to note that the Derecktor Shipyard was cited for numerous environmental violations for on-shore and off-shore activities including dumping of contaminated sandblast grit directly into the bay from shipyard operations and associated dry docks.*

Response: A summary of the citations and findings from sandblast grit investigations conducted during the enforcement actions against Derecktor are provided in the SASE report. This information will be summarized in this section of the FS.

19. p. 1-33, §1.8.1 *The fourth full paragraph refers to marine sediment sampling conducted between 1997 and 1999. However, there is no sediment data presented in Appendix A for these years. Please provide the data or correct the reference. Also, although this paragraph states that contaminant concentrations were detected at much lower concentrations in 2004 than in earlier years, it should be noted that the total organic carbon (TOC) concentration for every 2004 sediment sample is orders of magnitude greater than the TOC concentration found in earlier years indicating that the*

sediment is dynamic. Please review the TOC data to ensure that the correct units are used (i.e., should the older data be reported as percent rather than mg/Kg?).

Response: Please refer to the response to comment no. 3 above. The units for the TOC data will be reviewed in the source reports and revised if necessary.

20. p. 1-37, §1.8.4, ¶2 Contrary to the implication in the last full sentence, there is no data presented beyond 1995 other than the 2004 data. Please correct the reference.

Response: The reference will be corrected.

21. p. 2-2, §2.1.1 In the first sentence remove: “, or discharged to,.”

Response: The statement is made to clarify that if a contaminant is discharged through an outfall, the allowed contaminant concentration in that discharge is either an ARAR or a TBC. An example of this would be that a discharge of water collected during sediment dewatering would have to meet the criteria set forth in an ARAR or TBC in order to meet the requirements for discharge to surface water.

22. p. 2-5, §2.2.3 It is noted that the PRG development process described here and detailed in Appendix B did not include TBT in the risk calculations and no PRG was calculated for TBT. When the PRG development document was prepared, how to evaluate TBT-contaminated sediments was not clear. Because of the significance of TBT at this site (relatively high concentrations of TBT have been found in the limited sampling reported for TBT) any remedial action recommended for this site must consider the risk effects of TBT. Sampling for TBT must be included in the supplemental sampling planned and the risk levels adjusted for TBT effects.

Response: The completion of the PRGs was conducted under review by the USEPA, their contractors, NOAA, and RIDEM. The agreed-upon approach was to calculate PRGs for only those contaminants that were determined to be the main risk drivers and encompass the most area, with the understanding that the other contaminants are co-located and would be addressed when the PRGs were met for the main risk-driving contaminants. EPA and NOAA have previously stated that they concur with the PRGs, although RIDEM has consistently stated disagreement with the PRGs. Navy does not believe that any new information exists that would justify the revisiting development of PRG.

Regarding supplemental sampling and analysis for TBT, Navy contends that there are no data gaps in the characterization for the purposes of selecting a remedy. Discussions on the scope and objectives of the PDI should be evaluated when the PDI is performed, after the ROD.

23. p. 3-2, §3.1.1 Add a new third sentence: “The option does include statutorily-required five-year reviews to assess the protectiveness of the remedy.”

Response: A new sentence will be included stating “Because waste would remain on site, this option would have to include five year reviews to assess protectiveness of the remedy”.

24. p. 3-2, §3.1.2 If this option is presented as either a natural attenuation or monitored natural recovery alternative it should be named so, and there should be a discussion of how it meets EPA standards for such an option.

Response a: The referenced section describes Limited Action as one of several general response action (GRAs) identified as potentially applicable for addressing the marine sediment at the site. The referenced text provides only a general description of various components that typically comprise a limited action GRA; it does not identify proposed components of a Limited Action Alternative for the site. The Limited Action Alternative proposed for the site is described in Section 4.2.2 and evaluated in Section 5; it is not presented as a natural attenuation or monitored natural attenuation alternative. The Limited Action alternative was evaluated assuming that no natural attenuation is occurring and that costs will occur over a 30-year period. This will be clarified in the revised document.

Add a new last sentence: "The option also includes statutorily-required five-year reviews to assess the protectiveness of the remedy."

Response b: A new sentence will be included stating "Because waste would remain on site, this option would have to include five year reviews to assess protectiveness of the remedy".

25. p. 3-3, ¶1 *Add a new last sentence: "Since the option leaves waste in place, statutorily-required five-year reviews to assess the protectiveness of the remedy are required."*

Response: A new sentence will be included stating "Because waste would remain on site, this option would have to include five year reviews to assess protectiveness of the remedy".

26. p. 3-6, §3.3.2 *At the end of the first sentence add: ", except conduct statutorily required five-year reviews."*

Response: A second sentence will be added stating: The only actions taken would be five-year reviews to assess the protectiveness of the remedy.

27. p. 3-7, ¶1 *Add a new last sentence: "There would be at least annual monitoring and reporting on compliance with any institutional controls."*

Response: The referenced section presents a description of institutional controls as a technology to be considered as a component of a remedial alternative (this is not the alternative description). The requested text is not appropriate in this paragraph; however the following text will be added to the end of the effectiveness portion of the associated evaluation to address the concerns identified in the comment: "Regular monitoring and reporting on compliance with institutional controls would be necessary to evaluate and ensure the effectiveness of the controls."

28. p. 3-10, bullet 1 *Add to the end of the second sentence: "and to take into account natural and man-made forces that may disturb and reduce the thickness of the cap (currents, storms, propeller wash)."*

Response: The text will be revised as requested.

29. p. 3-10, bullet 2 *Add a new forth sentence: "Capping techniques are also dependent on water depth (i.e., barge placement in deeper water, excavator placement in shallow waters)."*

Response: The text will be revised as requested.

30. p. 3-15, ¶4 *Add at the end of the last sentence: "unless paired with a mechanical dredge operation to remove debris from the area before hydraulic dredging."*

Response: The text will be revised as requested.

31. p. 3-16, §3.3.6.1 *In the last sentence of the first paragraph, add: "and meets regulatory compliance standards under Sec. 121(d)(3) of CERCLA Off-Site Rule (40 C.F.R. §300.440)."*

Response: The text will be revised as requested.

32. p. 4-3, §4.1 *Please update the alternative identifications to include on-shore as well as off-shore disposal as was done with the subsequent text descriptions for these alternatives.*

Response: The text will be revised as requested.

33. p. 4-4, §4.2.2 *The required boundaries for access restrictions and long-term monitoring are only considered conceptual. A pre-design investigation is also required for Alternative 2 to establish the required boundaries based on comprehensive sediment sampling. The scope of the supplemental sampling should address areas sampled previously and other suspect areas based on site usage.*

Response: Based on discussions held with USEPA, it is agreed that a PDI type investigation will be conducted prior to implementation of the alternative if alternative 2 is selected. This will be provided in the text sections and cost included in the appendices as appropriate.

34. p. 4-4, §4.2.2 *Add a new fifth sentence to the first paragraph: "There will be at least annual monitoring and reporting to federal and state regulators of compliance with institutional controls and access restrictions."*

Response: Please refer to the response to comment no. 5. A new sentence will be added that will read: "Annual monitoring will be conducted to assess compliance with institutional controls." The manner in which the reporting is conducted should be established in the ROD.

35. p. 4-4, §4.2.2 *EPA's comment from October 2007 questioned "whether certain commercial fishing techniques (e.g., dragging) would disturb contaminated areas and therefore require restrictions for the remedy to remain protective of human health and the environment." While fin-fishing bans are mentioned under the Institutional Controls, there is no discussion of the fishing techniques. EPA's concerns related to exposure of deeper contamination from dragging remain unaddressed. This also applies to Alternatives 1 and 3.*

Response: The response to the comment on the October letter was that dragging inshore areas is prohibited. Because this seems to be important to the reviewer, the following clarification is presented: The term "dragging" in the context of fishing typically means dragging nets along the bottom for the purposes of collecting groundfish and is very bottom-disruptive. It is not allowed in inshore areas, including Coddington Cove. "Dredging" is a different process by which shellfish are raked from the bottom using small cage-type rakes by hand or pulled by small boats. RIGL 20-6 permits dredging for shellfish in some Rhode Island coastal waters, but specifically not in this area. As discussed at previous meetings, the Navy MOU and the State regulations permit the collection of lobster and crabs by trapping in this area. Trapping does not substantially disturb sediments as the weight of the trap holds it in place until it is retrieved, which is typically every one to three days.

The section commented on states that institutional controls would be placed to ban shellfishing, lobster collection, and fin-fishing in affected areas of Coddington Cove to protect humans from exposure to contaminants in affected shellfish and lobster, and to reduce disturbance of affected sediment, thereby reducing contaminant resuspension and migration. The ban on all fishing and the language about reducing disturbance of affected sediment were included to address EPA's concerns about dragging and fin-fish collection. All of this will be included to clarify the intent of the access restrictions under the different alternatives.

36. p. 4-6, §4.2.3 *a) If there are any areas around the piers that can neither be capped nor excavated because of structural restrictions, discuss how the remedy will address these areas.*

Response a: This point has been considered during a recent site walk. Some of the areas directly under the center of the piers cannot be effectively dredged due to the presence of the pilings, particularly under Pier 2, which is wider than Pier 1. These pilings also hinder collection of samples for chemical analysis, which was discussed when the ecological risk assessment was conducted. Therefore, it is not certain that contaminants are present beneath the piers at concentrations exceeding PRGs, though it is certainly possible.

After discussion on this matter, it was agreed that the Navy would include the areas under the piers in the pre-design investigation, however the FS will not include details of the PDI, rather this information will be provided in a PDI work plan.

Remediation of the sediment under the piers is possible, but it will be quite difficult and costly. Given that the future of the piers is in question, it is advisable that the remedy be selected without onerous consideration to the sediment under the piers, and that this be considered during the PRAP and then addressed after the ROD is completed.

b) Sediment sampling for asbestos should be conducted, particularly around the structures with asbestos insulated steam lines.

Response b: The proposed scope of the PDI can be revised to include asbestos analysis. This is an inexpensive enough element that it can be added to the FS without revision to the cost (it would be considered part of the contingency). Refer to the response to comment No. 2 above.

c) In the third sentence of the second paragraph change: "due to sediment characteristics, ~~or~~ CAD capacity, or an inability of the CAD to qualify as an acceptable facility under the CERCLA Off-Site Rule..."

Response c: The Navy requests clarification from EPA on this point. The Navy was informed by the state of Rhode Island Coastal Resources Management Council (the operator of the CAD facility) that RIDEM shall determine whether the sediment can be disposed in the CAD cell, and that the determination will be based on sediment contaminant concentrations and toxicity testing. EPA has not provided any indication of how or when they will determine whether the CAD facility qualifies as an acceptable facility under the CERCLA Off-Site Rule. If the EPA believes that the CAD does not qualify as an acceptable facility under the CERCLA Off-Site Rule, then the EPA should make this determination now, and inform the Navy of this fact so that the Navy does not expend unnecessary cost performing the sampling and analysis required by RIDEM for their approval of the material, and so that the Navy can consider this information when selecting a preferred alternative for the site. Because the cost differential between CAD cell disposal and land disposal of dredge spoils is in the multiple millions of dollars, it is critical to determine as early as possible whether EPA will allow CAD disposal under the CERCLA Off-Site Rule.

37. p. 4-7 *Add a new third bullet: "Annual monitoring and reporting to federal and state regulators of compliance with institutional controls and access restrictions."*

Response: The bullets on page 4-7 identify elements of Alternative 3 (Containment, Dredging, and Disposal), which do not include institutional controls or access restrictions. It is believed that the intent of this comment is that such a statement be added to Section 4.2.2 (Limited Action Alternative) If this is the case, the following revisions can be made to Section 4.2.2:

- The beginning of the first paragraph of the Long-Term Monitoring and 5-Year Reviews section on page 4-5 will be revised to state: "A long-term monitoring program would be performed annually to evaluate the long-term effectiveness of the remedy. The

program would include annual monitoring of compliance with and enforcement of institutional controls and access restrictions, and annual monitoring of sediment contaminant concentrations and other parameters (i.e. toxicity and elutriate chemistry) that contribute risk to ecological receptors. The objective of the institutional controls and access restrictions monitoring would be to determine whether the restrictions are being adequately maintained and enforced and potential risks to people are being effectively mitigated. The sediment monitoring *program would determine*"

- The following paragraph will be added after the third paragraph of the Long-Term Monitoring and 5-Year Reviews section: "The results of the annual monitoring of compliance with institutional controls and access restrictions will be reported annually. The results will be used to identify the need to increase enforcement efforts, increase or decrease the frequency of monitoring, or implement additional response actions at the site."

38. p. 4-7, §4.2.3 *Please edit the description and scope of the PDI to conform to the agreement referenced in the Navy's responses to comments. In particular, the PDI must include a preliminary step of re-sampling previous sample locations to identify stations exceeding PRGs, then additional sampling will be conducted in grids around the stations where exceedances occur. The sampling shall include analyses for all site COCs. The same comment applies to the PDI for Alternative 4 as well.*

Response: Additional text will be added to this section reflecting the discussion of doing the PDI as a two step process. The level of effort will be increased for costing purposes. However, as previously agreed, the details of the PDI should be left to the PDI work plan which will be developed after the ROD.

39. p. 4-8, ¶4 *Please discuss whether there are any shallow subtidal areas that would be converted to intertidal areas by adding a three foot cap.*

Response: The water depths are described in 1.3 of the FS. A statement will be added in the paragraph cited in the comment that will clarify the water depth changes in the areas affected by the installation of the cap. None of the areas proposed for capping would be converted to intertidal areas by the addition of a three-foot thick cap.

40. p. 4-10, ¶2 *If the sediments contain asbestos, then any dewatering operation needs to be implemented so that sediment is either kept wet or solidified sufficiently so that no asbestos can be released into the air.*

Response: This is a typical effort for a PDI – identification of contaminants that may affect how excavated materials must be handled and disposed. Sediment will be analyzed for asbestos during the PDI step and if detected, appropriate measures will be included in the remedial design to ensure that asbestos is not released into the air during sediment handling. This will be clarified but detail on the PDI will not be included in the FS, but held until a PDI work plan is developed.

41. p. 4-11, §4.2.4 *a) Will there be any areas around the piers that won't be able to be dredged? If so, how will they be addressed under this alternative?*

Response a: Please refer to the response to comment no. 36a, above.

b) In the third sentence of the second paragraph change: "due to sediment characteristics, ~~or~~ CAD capacity, or an inability of the CAD to qualify as an acceptable facility under the CERCLA Off-Site Rule..."

Response b: Please refer to the response to the last portion of comment no. 36, above.

42. p. 4-14, ¶2 *If sediments contain asbestos, then any dewatering operation needs to be implemented so that sediment is either kept wet or solidified sufficiently so that no asbestos can be released into the air.*

Response: Please refer to the response to comment 40, above.

43. p. 4-15, §4.3 *In the discussion for Alternative 2, the suggestion that contaminant concentrations may be decreasing with time is questionable based on the limited sampling conducted. Furthermore, the total organic carbon characterization of the 2004 samples is substantially different from that for earlier samples indicating that the sediment is dynamic. Please check the TOC data in Appendix A and remove any reference to trends.*

Response: TOC data will be reviewed and corrected if necessary. However, the statements in the referenced paragraph are properly qualified that contaminant concentrations (or risks) may be decreasing over time. There is no conclusion drawn and the context of the one paragraph is clear – the limited action alternative is a valid alternative given the disruptive nature of the removal alternatives and uncertainty of the risks measured. These points need to be made clear to the risk managers as they develop the decision documents. The paragraph will not be revised.

44. p. 4-15, last ¶ *Change paragraph to: "Alternative 2 (Limited Action) may address human health risks through institutional controls, but does not address identified ecological risks." [The alternative could only be considered as addressing identified ecological risks if it met standards for monitored natural attenuation or monitored natural recovery.]*

Response: Please refer to the response to comment 43, above.

45. p. 4-16, ¶1 *Remove the first sentence and merge with the previous paragraph.*

Response: The first sentence will remain, and a new third sentence will be added: This alternative provides no direct reduction of the estimated ecological risk although risk may be reduced over time by natural processes.

46. p. 4-16, ¶3 *Change the last sentence to: "Because sediment with COCs exceeding PRGs would remain on site, long-term monitoring, institutional controls, and five-year reviews would be required to assess the long-term protectiveness of the remedy."*

Response: It is believed that this comment is in regards to Paragraph 2 (Alternative 3), not paragraph 3: Provisions for institutional controls (ICs) will be included for all alternatives where contaminants remain in sediment.

47. p. 4-16, ¶4 *Change the last sentence to: "However, if sediment with COCs exceeding PRGs remains in inaccessible areas, such as beneath the piers, long-term monitoring, institutional controls, compliance monitoring, and five-year reviews would be required to assess the long-term protectiveness of the remedy."*

Response: It is believed that this comment is in regards to Paragraph 3 (Alternative 4), as there is no 4th paragraph on Page 4-16. Provisions for institutional controls (ICs) will be included for all alternatives where contaminants remain in sediment. Please refer to the responses to comments 6 and 36 above for additional discussion of this issue.

48. p. 5-8, §5.2.2 *In the first paragraph add new seventh and eighth sentences: "There will be at least annual monitoring of compliance with institutional controls and annual reporting of compliance to EPA and RIDEM. Compliance reporting will also be incorporated into the five-year reviews."*

Response: The intent of the comment is accepted. However instead of the suggested text, the following phrase will be added to the end of the sixth sentence: “, and to monitor the compliance with institutional controls and access restrictions.” As described in response to comment 37, the compliance monitoring will be included as a component of the long-term monitoring program.

49. p. 5-13, ¶3 *Add new second and third sentences: “There will be at least annual monitoring of compliance with institutional controls and annual reporting of compliance to EPA and RIDEM. Compliance reporting will also be incorporated into the five-year reviews.”*

Response: As previously stated, Alternative 3 does not include institutional controls. Provisions for institutional controls (ICs) will be included for all alternatives where contaminants remain in sediment. If it is determined that institutional controls must be added to Alternative 3, Section 5.2.3 will be revised to make it clear that the long term monitoring program will include annual monitoring of the compliance with institutional controls and access restrictions.

50. p. 5-14, §5.2.3 *a) In the last paragraph discussing ARARs, the third sentence states that none of the sediment has been characterized as RCRA hazardous waste. However, there are six sample locations listed in Appendix A with lead concentrations exceeding 100 mg/kg and none of these have apparently been analyzed for lead via the toxicity characteristic leaching procedure (TCLP) test. It is therefore possible that sediment from any of these samples could be RCRA hazardous. Moreover, EPA has previously provided evidence of spills in the area where RCRA wastes were known to occur.*

Response a: The paragraph is correct as written. None of the sediment has been characterized as hazardous waste. However the text states that federal and state hazardous and toxic waste handling requirements will be used to determine if any of the sediment is hazardous waste, and that it is presumed that the sediments are not regulated by RCRA. Speculating that some amount might be hazardous has been done in the past and typically allows some cost for disposal of RCRA waste. In this case, contingencies in the costing allow for findings such as these during PDI or construction phases. The passage will be clarified to state that it is presumed that handling and disposal of sediment will not be regulated by RCRA.

b) The discussion of TSCA is not correct. The reference to the 50 ppm threshold is pertinent only for disposal purposes. Sediment is regulated by TSCA based on risk and TSCA is a chemical-specific ARAR for the site. For disposal purposes, however, the sediment is not regulated by TSCA. Please edit the text here and in Section 5.2.4 accordingly.

Response b: Clarification is requested on this point; it is uncertain what EPA believes to be incorrect. The comment states that disposal of sediment is not regulated by TSCA. The report text states that the dredged sediment is not expected to be regulated by TSCA because the PCB concentrations are considerably lower than the 50 ppm threshold (for disposal). The intent of the text was that disposal of the sediment is not expected to be regulated under TSCA. The text will be slightly revised to clarify this point.

51. p. 5-16, last ¶ *c) Change the first three sentences of the paragraph to: “In the State of Rhode Island capping/dredging projects are often conducted between November 1 and January 15 to protect sensitive species. The Navy would investigate the affected areas to determine potential impacts from remedial actions during different times of the year and will consult with federal and state resource agencies regarding the timing of dredging operations and potential mitigation measures, if required.”*

Response c: There is no material change to the suggested language, except that it includes EPA and other regulatory agencies (besides RIDEM) in the discussions of whether the dredging window should be adhered to. This will be clarified in the revised report.

52. p. 5-17, ¶4 *In the first sentence change: "because of sediment characteristics, CAD capacity, or an inability of the CAD to qualify as an acceptable facility under the CERCLA Off-Site Rule..."*

Response: Please refer to the response to Comment 36c, above.

53. p. 5-19, §5.2.4 *In the third sentence of the second paragraph change: "due to sediment characteristics, ~~or~~ CAD capacity, or an inability of the CAD to qualify as an acceptable facility under the CERCLA Off-Site Rule..."*

Response: Please refer to the response to Comment 36c, above.

54. p. 5-20, ¶1 *Insert: "would be removed (assuming no contamination will need to be left in inaccessible areas), no 5-year reviews..."*

Response: The following will be inserted after "would be removed" : "... (assuming no contamination is left in place), ..."

55. p. 5-21, ¶1 *a) The third sentence states that none of the sediment has been characterized as RCRA hazardous waste. However, there are six sample locations listed in Appendix A with lead concentrations exceeding 100 mg/kg and none of these have apparently been analyzed for lead via the toxicity characteristic leaching procedure (TCLP) test. It is possible that sediment from any of these samples could be RCRA hazardous. Moreover, EPA has previously provided evidence of spills in the area where RCRA wastes were known to occur.*

Response a: Please refer to the response to Comment 50a, above.

b) The discussion of TSCA is not correct. The reference to the 50 ppm threshold is pertinent only for disposal purposes. Sediment is regulated by TSCA based on risk and TSCA is a chemical-specific ARAR for the site. For disposal purposes, however, the sediment is not regulated by TSCA. Please edit the text here and in Section 5.2.3 accordingly.

Response b: Please refer to the response to Comment 50b, above.

56. p. 5-22, ¶3 *Change the first three sentences of the paragraph to: "In the State of Rhode Island capping/dredging projects are often conducted between November 1 and January 15 to protect sensitive species. The Navy would investigate the affected areas to determine potential impacts from remedial actions during different times of the year and will consult with federal and state resource agencies regarding the timing of dredging operations and potential mitigation measures, if required."*

Response: Please refer to the response to Comment 51, above.

57. p. 5-23, ¶2 *a) In the first sentence change: "due to sediment characteristics, ~~or~~ CAD capacity, or an inability of the CAD to qualify as an acceptable facility under the CERCLA Off-Site Rule..."*

Response a: Please refer to the response to the last portion of comment 36, above.

b) Add a new last sentence: "If sediments do contain asbestos, then any processing and/or dewatering operation needs to be implemented so that sediment is either kept wet or solidified sufficiently so that no asbestos can be released into the air."

Response b: Please refer to the response to comment 40, above.

58. p. 5-26, ¶6 *Add to the last sentence: “, assuming no contaminated sediments need to be left in place within inaccessible areas.”*

Response: The passage will be revised to state “assuming no contaminants are left in place”...

59. p. 5-28, ¶2 *Change the last sentence to: “For capping, bathymetric measurements would be required to confirm that the required minimum cap thickness was achieved.”*

Response: The sentence will be revised as requested.

60. p. 5-28, ¶3 *Add a new sentence after “staging removed sediment before disposal.”: “If sediments do contain asbestos, then any processing and/or dewatering operation needs to be implemented so that sediment is either kept wet or solidified sufficiently so that no asbestos can be released into the air.”*

Response: Please refer to the response to comment no. 40 above.

61. Table 1-1 *a) As stated previously in meetings, EPA believes that actionable risks exist when the risk level is greater than 1.000E-06.*

Response a: The comment is noted. All work to date on this site has focused on a receptor cancer risk of 1E-5 or above. The first and second notes on the table will be revised to delete the references to CERCLA/EPA and RIDEM risk thresholds. The shading and bolding of cancer risk values above 1E-4, 1E-5 and HI values greater than 1 will remain.

b) See also previous comments about the potential need to assess asbestos risk in sediments.

Response b: This comment is noted, and the previous comments have been addressed. If the EPA wants the risk from asbestos to be calculated and incorporated into this table, this request should be clarified.

62. Table 3-1, p. 1 *Please add the following sentence to the description for Institutional Controls and Access Restrictions: “At least annual monitoring and reporting to federal and state regulators of compliance with restrictions.”*

Response: The meaning could be conveyed by including the words “includes annual reporting”. However, it is noted that this table presents the general descriptions and preliminary screening of technologies and process options, not detailed descriptions of complete remedial alternatives. As such, the requested text is not critical, and if included at all, would better fit as a component of long-term monitoring. See also the response to comment 27 above.

63. Table 4-1 *Under “Receptor Addressed,” please add lobster for Alternatives 2 through 4.*

Response: Receptors will be revised to state “shellfish and lobster ingestion”

64. Table 4-1 *For Alternatives 2 and 3 add a bullet: “At least annual monitoring and reporting to federal and state regulators of compliance with restrictions.”*

Response: Regarding Alternative 2, the following will be added to the parenthetical phrase for Long-term monitoring: (... , “and monitoring compliance with institutional controls”). The details of frequency and reporting are not necessary in this summary table.

Regarding Alternative 3, please refer to the response to comments 3, 36, and 49 above.

65. Table 5-1

a) Add: "Clean Water Act, Sec. 304; National Recommended Water Quality Criteria ("NRWQC")"

Response a: NRWQCs are chemical-specific ARARs for site sediment because they were used to calculate the sediment PRGs.

b) Add:

Clarifying Cleanup Goals and Identification of New Assessment Tools for Evaluating Asbestos at Superfund Cleanups	To Be Considered	EPA guidance on developing cleanup goals for asbestos.	This alternative will not meet this standard if asbestos is present in sediments, because any potential asbestos contaminated sediments will not be adequately addressed under this no action alternative.
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Response b: Please refer to the response to Comment 2 above.

The Navy does not believe that it is appropriate to include this guidance as a TBC for the site because: (1) The cleanup goals for the site have already been developed for the site to address the site COCs. (2) The asbestos that may be present in the marine sediment at the site is an ancillary problem only; asbestos has not been identified as a COC. If present, asbestos resides in sediment beneath the piers, in water approximately 30 feet deep. Therefore, asbestos would pose a risk only if sediment containing asbestos is dredged from the site and the subsequent handling results in the drying of the sediment and release of asbestos to the air. (3) The presence of asbestos in sediment to be dredged would be identified during the PDI so that appropriate measures can be taken to prevent release of asbestos during sediment handling.

66. Table 5-4

Add: "Clean Water Act, Sec. 304; National Recommended Water Quality Criteria ("NRWQC")"

Response: Refer to the response to comment 65 above.

Add:

Clarifying Cleanup Goals and Identification of New Assessment Tools for Evaluating Asbestos at Superfund Cleanups	To Be Considered	EPA guidance on developing cleanup goals for asbestos.	This alternative will meet this standard if asbestos is present in sediments, as long as institutional controls and access restrictions are established to prevent human contact with asbestos-contaminated sediments.
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Response: Refer to the response to comment 65 above.

67. Table 5-5, p. 1

a) Change:

Wetland Management	40 C.F.R. 6.302(a); Appendix A)	Applicable	<i>This regulation codifies standards established under Executive Order 11990. Federal agencies are to take action to avoid adversely impacting wetlands wherever possible, to minimize wetlands destruction and to preserve the values of wetlands, and to prescribe procedures to implement the policies and procedures of this executive order.</i>	<i>If federal jurisdictional wetlands may be disturbed by monitoring activity, the action will be performed to minimize the wetland destruction and preserve the value of the wetland.</i>
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Response a: Although the requested changes do not substantively alter the applicability of the requirement or the actions to be taken, the table will be changed as requested.

b) Change:

Floodplain Management	40 C.F.R. 6.302(b); Appendix A)	Applicable	<i>This regulation codifies standards established under Executive Order 11988. This standard requires action to avoid the long- and short-term impacts associated with the occupancy and modifications related to floodplain development, wherever there is a practicable alternative. Promotes the preservation and restoration of floodplains so that their natural and beneficial value can be realized.</i>	<i>If there are no practical alternatives to locating monitoring activities in the 100-year floodplain (which includes the intertidal zone), then measures will be taken to limit impacts.</i>
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Response b: The affected areas do not include floodplains, all affected areas are subtidal, and this will be clarified in the document.

68. Table 5-6, p. 1 *a) Capitalize "Resource Conservation and Recovery Act"; remove second sentence in the Action to Be Taken column.*

Response a: The typo in Conservation will be corrected. The Navy disagrees that deletion of the second sentence is necessary. See response to comment 50 above. The statement is accurate and will be retained.

b) Add as a federal ARAR:

Clean Air Act; Emission Standard for asbestos, Subpart M	40 C.F.R. Part 61.150, 61.151	Applicable	<i>Provides standards for packaging, transport and disposal of materials that contain asbestos. Disposal requirements for asbestos disposal sites are established. Advance EPA notification of the intended disposal site is required.</i>	<i>This alternative includes remedial actions in areas containing asbestos. These standards will be complied with for any asbestos-containing materials excavated/handled as part of this remedial alternative.</i>
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Response: The referenced table includes Action-Specific ARARs for the limited action alternative. Because no actions are planned under this alternative that would result in sediment being

packaged, transported, or disposed, this requirement should not be included as an ARAR for Alternative 2. For alternatives involving removal, transportation and disposal of sediments that contain asbestos, NESHAPs could be considered applicable as Action-specific, and those revisions will be made, with the statement "if Asbestos is found in sediment during the PDI".

69. Table 5-7 a) Add: "Clean Water Act, Sec. 304; National Recommended Water Quality Criteria ("NRWQC")"

Response: Please refer to the response to comment 65 above.

b) Add:

<i>Clarifying Cleanup Goals and Identification of New Assessment Tools for Evaluating Asbestos at Superfund Cleanups</i>	<i>To Be Considered</i>	<i>EPA guidance on developing cleanup goals for asbestos.</i>	<i>This alternative will meet this standard if asbestos is present in sediments, as long as dredging, capping, institutional controls and access restrictions are conducted to prevent human contact with asbestos-contaminated sediments.</i>
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Response: Please refer to the response to comment 65, and 68b above.

70. Table 5-8, p. 1 a) Change:

<i>Wetland Management</i>	<i>40 C.F.R. 6.302(a); Appendix A)</i>	<i>Applicable</i>	<i>This regulation codifies standards established under Executive Order 11990. Federal agencies are to take action to avoid adversely impacting wetlands wherever possible, to minimize wetlands destruction and to preserve the values of wetlands, and to prescribe procedures to implement the policies and procedures of this executive order.</i>	<i>If federal jurisdictional wetlands may be disturbed by capping and dredging activity, the action will be performed to minimize the wetland destruction and preserve the value of the wetland.</i>
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<i>Floodplain Management</i>	<i>40 C.F.R. 6.302(b); Appendix A)</i>	<i>Applicable</i>	<i>This regulation codifies standards established under Executive Order 11988. This standard requires action to avoid the long- and short-term impacts associated with the occupancy and modifications related to floodplain development, wherever there is a practicable alternative. Promotes the preservation and restoration of floodplains so that their natural and beneficial value can be realized.</i>	<i>If there are no practical alternatives to capping and dredging in the 100-year floodplain (which includes the intertidal zone), then measures will be taken to limit impacts.</i>
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Response a: The affected areas are all in the subtidal zone, and thus these regulations shouldn't apply at all. Subtidal areas are state lands and subject to CRMC and corps of engineers permitting for alteration.

b) For Action to be Taken for Sec. 404 of the Clean Water Act add a new first sentence: "Capping of contaminated sediments will be conducted to minimize permanent damage to special aquatic habitats."

Response 70b: The requested change will be made.

<i>c) Add as federal location-specific ARAR:</i>				
<i>Resource Conservation and Recovery Act (RCRA), Hazardous Waste Facility Standards Within a Floodplain</i>	<i>42 U.S.C. § 6901 et seq.; 40 C.F.R. 264.18(b)</i>	<i>Relevant and Appropriate</i>	<i>Any hazardous waste facility located in a 100-year floodplain must be designed, constructed, operated and maintained to prevent a release during a 100-year flood.</i>	<i>In the event that hazardous waste is capped in the subtidal and/or intertidal zone, the cap will be designed, constructed, operated and maintained to prevent a release of hazardous waste during a 100-year flood event.</i>

Response 70c: Navy does not believe that contaminated sediments at the site, which reside in subtidal areas of Coddington Cove, are defined as "hazardous wastes". Secondly, because the area to be capped is within the subtidal zone, flood zones do not apply nor does flooding need to be part of the design criteria.

d) For Action to be Taken for both the Rivers and Harbors Act and the Endangered Species Act add: "capping and" before "dredging."

Response 70d: The requested revision will be made.

e) For Action to be Taken for the Fish & Wildlife Coordination Act change to: "Appropriate agencies would be consulted to find ways to minimize adverse effects to fish and wildlife capping and dredging."

Response 70e: The following will be included: "Appropriate agencies would be consulted to find ways to minimize adverse effects to fish and wildlife during capping and dredging."

71. Table 5-8, p. 2 a) For Action to be Taken for both the Federal National Historic Preservation Act and State Endangered Species Act add "capping and" before "dredging."

Response 71a: The requested revision will be made.

b) Add as State location-specific ARARs:

<i>Hazardous Waste Management – Flood Plain Operation</i>	<i>RIGL 23-19 et seq.; CRIR 12-030-003(8.05)</i>	<i>Relevant and Appropriate</i>	<i>Any hazardous waste facility located in the 100 year flood plain will be designed, constructed and operated in accordance with standards equivalent to those of 40 CFR 264.18 (b), as is or as amended.</i>	<i>In the event that hazardous waste is capped in the subtidal and/or intertidal zone, the cap will be designed, constructed, operated and maintained to prevent a release of hazardous waste during a 100-year flood event.</i>
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Response b: Please refer to response 70c.

<i>Historic Preservation Act and Antiquities Act</i>	<i>RIGL 42-45 et seq.; RIGL 42-45.1 et seq.</i>	<i>Applicable</i>	<i>The Historic Preservation Act establishes criteria for evaluating historical, architectural, or cultural sites, buildings, places, landmarks, or areas; and to compile, maintain, and publish a state register of historical architectural and cultural sites, buildings, places, landmarks, and areas. The Antiquities Act addresses the identification, preservation, excavation, study, and exhibition of the state's archaeological resources.</i>	<i>Historic vessels may be sunken in the area. Dredging and capping design would be conducted in consultation with State and local historical groups to minimize potential harm to historic sites.</i>
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Response 71c: This requirement will be added.

<i>72. Table 5-9, p. 1 Clean Air Act; National Emission Standard for Asbestos, Subpart M</i>	<i>40 C.F.R. Part 61.150, 61.151</i>	<i>a) Add as federal action-specific ARARs: Applicable</i>	<i>Provides standards for packaging, transport and disposal of materials that contain asbestos. Disposal requirements for asbestos disposal sites are established. Advance EPA notification of the intended disposal site is required.</i>	<i>This alternative includes remedial actions in areas containing asbestos. These standards will be complied with for any asbestos-containing materials capped or excavated/handled of as part of this remedial alternative.</i>
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Response 72a: Please refer to the responses to comment 2 above regarding uncertainties about the presence and risk posed by asbestos at the site. If asbestos is found to be contained in the sediments to be dredged under this alternative, the sediment will be handled in accordance with the appropriate standards during dredging operations. The presence of asbestos in site sediment will be evaluated during the PDI. If asbestos is present in sediment to be dredged, this requirement would apply, but the Navy does not see how this requirement would apply to sediment that would be capped. As such, this requirement will be included, but the "action to be taken" will be revised to state: "This alternative includes dredging of sediment in areas that may contain asbestos. These standards will be complied with for any asbestos-containing materials excavated and disposed off site as part of this remedial alternative."

<i>Clean Water Act; General Pretreatment Regulations for Existing and New Sources of Pollution</i>	<i>b) Add: 33 U.S.C. § 1251 et seq; 40 C.F.R. § 403</i>	<i>Applicable</i>	<i>Standards for direct discharge of waste water into a Publicly Owned Treatment Works (POTW).</i>	<i>These standards will apply if water from the remedial action, such as from dewatering, treatment or other processing, is discharged to a POTW.</i>
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Response 72b: This potential ARAR will be added.

c) For Action to be Taken for Sec. 402 of the CWA change to: "Capping operations will be conducted in a manner as to prevent degradation of water quality. Any

drainage or discharges from the sediment dewatering operations would be treated in an on-site treatment plant prior to discharge to Narragansett Bay."

Response 72c: Our review of the cited sections finds regulations pertaining to direct discharge of effluents and direct discharge of pollutants, but does not find reference to general water quality impacts resulting from deposition of inert cap material. A revision will be provided to address this.

73. Table 5-9, p. 3 a) For Action to be Taken for the two state Water Pollution Control citations add as a new first sentence: "Capping operations will be conducted in a manner as to prevent degradation of water quality."

Response 73a: A new sentence will be added to the first citation, pertaining to water quality: "Capping operations will be conducted in a manner as to minimize degradation of water quality. The need for this sentence in the second citation, pertaining to pollution discharge elimination systems is questionable. See response 72c, above.

Add as State Action-specific ARAR:

<i>Pretreatment Regulations</i>	<i>RIGL 46-12, 42-17.1, 42-45</i>	<i>Applicable</i>	<i>Controls the pollutants which pass through or interfere with treatment processes in POTW or that may contaminate sewage sludge.</i>	<i>These standards will apply if water from the remedial action, such as from dewatering, treatment or other processing, is discharged to a POTW.</i>
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Response 73b: This requirement will be added.

74. Table 5-10 a) Add: "Clean Water Act, Sec. 304; National Recommended Water Quality Criteria ("NRWQC")"

Response 74a: Refer to the response to comment 65 above.

b) Add:

<i>Clarifying Cleanup Goals and Identification of New Assessment Tools for Evaluating Asbestos at Superfund Cleanups</i>	<i>To Be Considered</i>	<i>EPA guidance on developing cleanup goals for asbestos.</i>	<i>This alternative will meet this standard if asbestos is present in sediments, as long as dredging, handling, and disposal are conducted to prevent human contact with asbestos-contaminated sediments.</i>
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Response 74b: Refer to the response to comment 65(b) above.

75. Table 5-11, p.1 Change:

Wetland Management	40 C.F.R. 6.302(a); Appendix A)	Applicable	This regulation codifies standards established under Executive Order 11990. Federal agencies are to take action to avoid adversely impacting wetlands wherever possible, to minimize wetlands destruction and to preserve the values of wetlands, and to prescribe procedures to implement the policies and procedures of this executive order.	If federal jurisdictional wetlands may be disturbed by dredging activity, the action will be performed to minimize the wetland destruction and preserve the value of the wetland.
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Response 75a: Although the requested changes do not substantively alter the applicability of the requirements or the actions to be taken, the table will be changed as requested.

Floodplain Management	40 C.F.R. 6.302(b); Appendix A)	Applicable	This regulation codifies standards established under Executive Order 11988. This standard requires action to avoid the long- and short-term impacts associated with the occupancy and modifications related to floodplain development, wherever there is a practicable alternative. Promotes the preservation and restoration of floodplains so that their natural and beneficial value can be realized.	If there are no practical alternatives to dredging and processing dredge material in the 100-year floodplain (which includes the intertidal zone), then measures will be taken to limit impacts.
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Response 75b: Although the requested changes do not substantively alter the applicability of the requirements or the actions to be taken, the table will be changed as requested. Again, flood plain regulations do not apply because the actions are to take place in the subtidal areas.

*For Action to be Taken for the Fish & Wildlife Coordination Act change to:
 "Appropriate agencies would be consulted to find ways to minimize adverse effects to fish and wildlife dredging."*

Response 75c: The following will be included: "Appropriate agencies would be consulted to find ways to minimize adverse effects to fish and wildlife during dredging."

76. Table 5-11, p. 2 Add the following State location-specific ARAR:

<i>Historic Preservation Act and Antiquities Act</i>	<i>RIGL 42-45 et seq.; RIGL 42-45.1 et seq.</i>	<i>Applicable</i>	<i>The Historic Preservation Act establishes criteria for evaluating historical, architectural, or cultural sites, buildings, places, landmarks, or areas; and to compile, maintain, and publish a state register of historical architectural and cultural sites, buildings, places, landmarks, and areas. The Antiquities Act addresses the identification, preservation, excavation, study, and exhibition of the state's archaeological resources.</i>	<i>Historic vessels may be sunken in the area. Dredging and design will be conducted in consultation with State and local historical groups to minimize potential harr to historic sites.</i>
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Response 76: This passage will be added.

77. Table 5-12, p. 1 a) Add as federal action-specific ARARs:

<i>Clean Air Act; National Emission Standard for Asbestos, Subpart M</i>	<i>40 C.F.R. Part 61.150, 61.151</i>	<i>Applicable</i>	<i>Provides standards for packaging, transport and disposal of materials that contain asbestos. Disposal requirements for asbestos disposal sites are established. Advance EPA notification of the intended disposal site is required.</i>	<i>This alternative includes remedial actions in areas containing asbestos. These standards will be complied with for any asbestos-containing materials capped or excavated/handled of as part of this remedial alternative.</i>
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Response 77a: Please refer to response 36b and 68b above.

b) add:

<i>Clean Water Act; General Pretreatment Regulations for Existing and New Sources of Pollution</i>	<i>33 U.S.C. § 1251 et seq.; 40 C.F.R. § 403</i>	<i>Applicable</i>	<i>Standards for direct discharge of waste water into a Publicly Owned Treatment Works (POTW).</i>	<i>These standards will apply if water from the remedial action, such as from dewatering, treatment or other processing, is discharged to a POTW.</i>
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Response 77b: This potential ARAR will be added.

78. Table 5-12, p. 3 Add as State Action-specific ARAR:

<i>Pretreatment Regulations</i>	<i>RIGL 46-12, 42-17.1, 42-45</i>	<i>Applicable</i>	<i>Controls pollutants that pass through or interfere with treatment processes in POTW or that may contaminate sewage sludge.</i>	<i>These standards will apply if water from the remedial action, such as from dewatering, treatment or other processing, is discharged to a POTW.</i>
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Response 78: This potential ARAR will be added.

79. Figure 1-2 *This figure refers to Study Area 19, please correct this to Site 19, Operable Unit 5 and annotate the figure to include the entire site, which includes the marine area adjacent to the on-shore area including that around and north of Pier 2.*

Response: The revision will be made.

80. Figure 1-6 *Please use a current aerial photograph that shows the two aircraft carriers at Pier 1. This would enable reviewers to see that large areas around both sides of Pier 1 could not be sampled in 2004 because of the presence of the aircraft carriers that cover approximately three-quarters of the area along each side of Pier 1. The presence of the carriers could interfere with sampling required by the PDI. Note that the areas blocked by the aircraft carriers are the exact areas where the dry docks were berthed when the Derecktor Shipyard was in operation and are therefore likely to contain significant contamination.*

Response: A figure showing the presence of the aircraft carriers can be added. It will note that the aerial extent of the hull at the water line is significantly smaller than the aerial extent of the flight deck visible from above. Thus the figure could be somewhat misleading unless viewed with this understanding. Regarding the observations on the former locations of the dry docks, this was taken into consideration during the development of the ecological risk assessment in 1995 and 1996; consequently, samples were collected from these areas during the ERA investigations (the ships did not arrive until 1998). If additional samples are requested, please clarify.

81. Figure 4-1 *As indicated in Navy's responses to comments, a note should be added to this figure stating that "This figure is a conceptual plan only and is subject to revision based on the results of a comprehensive pre-design investigation to establish the true boundaries of the restricted areas."*

Response: The note will be added to figure 4-1.

82. Figures 4-2 & 4-3 *a) These figures are not acceptable without a note, as indicated in Navy's responses to comments, stating that "This figure is a conceptual plan only and is subject to revision based on the results of a comprehensive resampling of all earlier sediment sampling locations and depths and suspect areas based on historical site use to establish the true locations of the grid sampling locations and depths for that component of the pre-design investigation."*

Response a: The following note will be added to Figures 4-2 and 4-3: "This figure is a conceptual plan only and will be revised for design."

b) Regarding the investigation of the area proposed for capping, the sampling in this area must adequately define the limits of contamination exceeding the PRGs. Therefore it is not sufficient to collect only surface sediment samples because contaminants at depth or outside the area of capping could be transported to the surface during natural ocean processes or boating/fishing operations. A more extensive evaluation at depth is warranted in the vicinity of the capped area.

Response b: The comment addresses the scope of the predesign investigation. It was agreed during the RPMs meeting in Newport on November 14, 2007, that the FS would include a brief description of the proposed PDI and that the exact scope would be defined at a later time (presumably during development of the PDI Work Plan/QAPP). Therefore, the PDI description in the FS will not be revised to address this comment. This issue will be discussed when the PDI work is planned.

83. References *Please note that the following RI regulations have been updated: the water quality regulations were updated in July 2006; the hazardous waste regulations were*

updated March 2007; and the investigation and remediation regulations were updated February 2004. Also, a more current version of the R.S. Means environmental cost data should be cited to be consistent with the Appendix C cost calculations. Please review all the references and correct as necessary.

Response: The references will be reviewed and revised as needed.

84. Appendix A *Please add the missing organic sampling sediment data to Appendix A. Also, there are no data presented for the sediment samples collected from the still water area, so please add that data as well. Finally, the FS references data collected between 1997 and 1999 but none of these data were presented. A comprehensive data summary/compilation is required.*

Response: Appendix A of both the Draft and Draft Final FS reports lacked all organic contaminant data and some inorganic data collected for the marine sediment at this site. The entire data set for this site will be recalled from the database for the final document.

85. Appendix C, Alt. 1 *For the Alternative 1 assumptions, please describe the scope of work for the five-year reviews. It is unclear what would be reviewed and what the expenses are for. It is noted that the cost for each five-year review for Alternative 1 is identical to the cost for other alternatives even though there would be nothing new to review for a five-year review of Alternative 1.*

Response: The cost of the five year review, regardless of the alternative selected, is based on review of rules and regulations pertaining to the contaminants and the actions taken. The risk and toxicity information for the contaminants present would be reviewed, and the alternative selected would be described. The effort includes reviewing the documentation leading up to the ROD, the ROD documents themselves, and any new information developed for the site in the past five years. If there is lengthy monitoring data that needs summary and interpretation for the five year review, this would add to the effort. However, it is assumed that the monitoring reports address monitoring data and trends identified. This is an assumption for the costing effort for the FS. The level of effort required for the five year reviews is not expected to differ significantly among alternatives, regardless of the type of remedial actions implemented.

86. Appendix C, Alt. 2 *Regarding the Alternative 2 Assumptions:*
a) *A pre-design investigation is also warranted for Alternative 2 to ensure that areas with contaminant concentrations exceeding the cleanup goals are adequately addressed by the access restrictions and to define the extent of the area where long-term monitoring will be conducted. The scope of the investigation should be sufficient to address previously-identified contamination and areas likely impacted by site activities. Because of migration of contaminated sediment, the restricted area will be larger than the limits of sediment contamination. Please edit the FS accordingly.*

Response 86a: Please refer to the response to comment 33.

b) *Assumption #1: Eight samples are inadequate to properly monitor the site considering the areal extent and the mobility of contaminated sediment. While EPA can accept this scope for cost estimating purposes only, the final details of any monitoring program will be determined later.*

Response 86b: Comment is noted, and no revision is needed.

**RESPONSES TO COMMENTS FROM RIDEM
DRAFT FINAL FEASIBILITY STUDY REVISION 1 FOR MARINE SEDIMENTS,
FORMER ROBERT E. DERECKTOR SHIPYARD
COMMENTS DATED MARCH 17, 2008**

The Rhode Island Department of Environmental Management, Office of Waste Management has reviewed the Draft Final Feasibility Study for the Derecktor Shipyard Site, dated March 18, 2008. A review of the report reveals that a number of the concerns presented by this Office on earlier versions of this report have not been addressed. Therefore, the Office of Waste Management does not accept this document.

Please be advised that the Office of Waste Management does concur with the proposal to dredge contaminated sediment at the site. Further, it is our belief that consensus can be reached on the aforementioned concerns which will allow the project to move forward. The Office of Waste Management would like to schedule a meeting with the Navy and EPA to resolve these issues. If the Navy has any questions concerning the above, please contact this Office at (401) 277-2797 ext. 7111.

Response: As RIDEM is aware, there is a Federal Facilities Agreement (FFA) governing the process by which the installation restoration program is conducted, and the FFA was signed by RIDEM. The FFA was written in part to set timetables for completion and avoid repeated comment/response cycles such as appears to be occurring. Because this is a Draft Final document, the path forward described by the FFA is limited: Our understanding is that regulatory parties can provide either concurrence or dispute on draft final documents. Because your letter states that you do not accept the document, we would presume this to mean you are invoking a formal dispute. However, RIDEM has stated in meetings that they do not want to invoke a formal dispute, and prefer to maintain informal disputes because the informal dispute usually allows forward progress during the discussion process. This conflict puts the Navy in a quandary as to how to proceed.

It is our objective to get a ROD in place for the site, and we will continue to move toward that goal even if RIDEM does not concur with the manner in which it is conducted. We trust that RIDEM will invoke a formal dispute when they think it is important enough to stop the process. We also trust that RIDEM will not just allow the process to continue until the ROD is ready to finalize and then invoke a dispute when they had innumerable opportunities to do so in the past. For example, by allowing the PRG document to be finalized (1998) without disputing it, it is our understanding that the right to dispute the cleanup goals later is lost. RIDEM should be aware that when they want to stop the process, they must provide a letter with the words "formal dispute" included.

Notwithstanding the above, issues that RIDEM has cited are described below, and the Navys justification for moving ahead without RIDEM concurrence is stated accordingly.

**SUMMARY OF ISSUES FROM RIDEM
ELECTRONIC MAIL 4/23/08**

From: Paul Kulpa [<mailto:paul.kulpa@DEM.RI.GOV>]

Sent: Wednesday, April 23, 2008 8:08

To: Paul Kulpa; Colter, James L CIV NAVFAC MIDLANT; Kymberlee Keckler (E-mail); Mueller, Cornelia A CIV NAVFAC MIDLANT

Subject: Derecktor Shipyard Feasibility Study Concerns April 2008

Human Health Issues

1. *RIDEM has concerns with respect to heterogeneity of contaminant distribution at the site. Please submit either a table or a spreadsheet with PRGs for all of the contaminants observed at the site (following the information in the PRG document RIDEM was unable to create PRGs for all of the contaminants). This will allow RIDEM to confirm that cleaning up to the recommended PRGs in the FS will also address heterogeneity issues and allow the agencies to reach consensus.*

Response: As RIDEM is aware, the approach that was used for this site was to develop PRGs for limiting COCs, and not for all contaminants detected. The PRG document was finalized in 1998 and has not been disputed by RIDEM.

2. *RIDEM has concerns with respect to ingestion rates and cumulative affects. In regards to the cumulative affects the Navy indicated that the process did address cumulative affects. Perhaps the Navy could indicate which section of a particular report has this information.*

Response: Cumulative effects of human exposures to contaminants at the site are described in the Human health risk assessment, Section 6, where cancer risks for each contaminant are individually calculated and added to provide a total risk (Table 6-17). The Human health risk assessment was completed as a Draft Final in June 1998 and was not disputed by RIDEM.

Ecological Risk Assessment

3. *RIDEM has concerns with the exclusion of lines of evidence in the development of the PRGs (process relies only on toxicity).*

Response: The Navy is familiar with RIDEMs issues with the development of the ecological PRGs, provided as Appendix B in the Revised FS Report. Refer to the response to comment 1 above.

4. *Similar to issues broached by the EPA it appears that certain contaminants of concern were not adequately addressed.*

Response: EPA cites asbestos and tributyltin as contaminants that they do not consider as being adequately addressed. Please refer to the responses to the comments in attachment A. If RIDEM has others, they will need to be identified. The Navy requests RIDEM participate in discussions on these issues as resolution is sought. However, bear in mind that the PRG document was finalized without dispute in 1998.

Feasibility Study

5. *RIDEM has reviewed the cost estimates and believes that the estimates are high.*

Response: The Navy is familiar with RIDEMs issues with the cost estimates in the FS reports. As previously stated in the Navy's response to RIDEM's comments on the Draft FS Revision 1 report, the Navy believes that the cost estimates provided in the FS are within the +50% to -30% range required for FS costs estimates under CERCLA. After discussion on this matter, it is the Navys understanding that RIDEM has tasked a contractor has been tasked to review cost estimates.

6. *RIDEM feels that the areas to be sampled in the pre design need to be greater than that depicted.*

Response: It was agreed during the RPMs meeting in Newport on November 14, 2007, that the FS would include a brief description of the proposed PDI and that the exact scope would be defined at a later time (presumably during development of the PDI Work Plan/QAPP). Comments on the extent of the Predesign investigation should be made when a work plan for that effort is developed and submitted for review.

7. *RIDEM agrees with dredging and feels that all of the areas of concern should be dredged. This will avoid problems associated with capping.*

Response: The comment is noted, and this will be taken into consideration when the PRAP is developed.