N00102.AR.002607
NSY PORTSMOUTH
5090.3a

LETTER REGARDING THE TRANSMITTAL OF SIGNED RECORD OF DECISION FOR OPERABLE UNIT 2 (OU 2) AND RESPONSE TO COMMENTS ON DRAFT VERSION NSY PORTSMOUTH ME
09/26/2011
TETRA TECH NUS

TETRA TECH

PITT-09-11-070

September 26, 2011

Project Number 112G02229

Mr. Matthew Audet
USEPA, Region 1
5 Post Office Square
Suite 100
Mail Code OSRR07-3
Boston, Massachusetts 02109-3912

Reference: Contract No. N6270-08-D-1001 (CLEAN)
Contract Task Order No. WE43

Subject: Signature copy Record of Decision for Operable Unit 2 (OU2)
Portsmouth Naval Shipyard (PNS), Kittery, Maine

Dear Mr. Audet:

On behalf of the U.S. Navy, Tetra Tech NUS, Inc. is pleased to provide to the U.S. Environmental Protection Agency Region I (USEPA) one copy of the subject document for signature.

Comments from the USEPA were received on the draft ROD on September 7, 2011. The Navy provided draft responses to comments to USEPA on September 22, 2011 via electronic mail and later that day the USEPA indicated that the had no further comment on the ROD.

Comments from the Maine Department of Environmental Protection (MEDEP) were received on the draft ROD on September 16, 2011. The Navy provided draft responses to comments to MEDEP on September 23, 2011 via electronic mail. The Navy and MEDEP discussed the responses to comments on September 26, 2011. The conclusion of the conference call was that there were no issues that would not allow the ROD to be finalized and that the draft responses to MEDEP comments do not need to be revised.

The signature copy of the ROD is only being distributed to the Navy and USEPA. An electronic version of the ROD will be distributed with the final signed copy of the ROD. The final responses to comments are being distributed with this submittal.

If you have any comments or questions, or if additional information is required, please contact Ms. Linda Cole at 757.341.2011.

For the Community Restoration Advisory Board (RAB) members; if you have any comments or questions on these issues, they can be provided to the Navy at a RAB meeting, by calling the Public Affairs office at 207.438.1140 or by writing to:

Portsmouth Naval Shipyard
Public Affairs Office
Attn: Danna Eddy
Portsmouth, NH 03804-5000

Sincerely,

Daniel C. Witt, P.E.
Project Manager

DCW/clm
Enclosure

Tetra Tech
661 Andersen Drive, Pittsburgh, PA 15220-2700
Tel 412.921.7090 Fax 412.921.4040 www.tetratech.com

Email (Responses to Comments only)
NAVFAC MIDLANT. (Code OPTE3-2/L. Cole)
ME Dept. of Marine Resources (D. Nault)
Mr. Doug Bogen
Ms. Michele Dionne
Ms. Mary Marshall
Mr. Peter Britz
NH Fish & Game (D. Grout)
Kittery Town Manager
Ms. Carolyn Lepage
Dr. Roger Wells
PNS Code 100PAO
Ms. Diana McNabb
NOAA (K. Finkelstein)
U.S. Fish and Wildlife (K. Munney)

Without Enclosure
Y. Walker, NEHC
Mr. Jack McKenna

Hard Copy
NAVFAC MIDLANT PWD ME (Code PRN4, M. Thyng) (Responses to Comments)
Ms. Deborah Cohen, Tetra Tech (Responses to Comments)
Lisa Joy (1 copy, Responses to Comments)

RESPONSES TO USEPA COMMENTS DATED SEPTEMBER 7, 2011
DRAFT RECORD OF DECISION FOR OPERABLE UNIT 2
PORTSMOUTH NAVAL SHIPYARD, KITTERY, MAINE

1. **Comment:** Section 2.12.2, p.36: Since Building 310 itself, the soil cover, and shoreline stabilization are important elements of the remedy (by limiting or preventing exposure), they should not simply be discussed in the LUC section, but rather should be discussed as part of the main discussion of the remedy. For example, rather than simply noting a LUC performance objective of "maintain[ing] current ... shoreline stabilization features" treat shoreline stabilization as a part of the remedy and describe the necessary elements.

   Response: The text in Section 2.12.2 related to the Waste Disposal Area remedy was revised by adding the following text: "Building 310 and the shoreline stabilization area are critical existing site features that must remain on site as part of the remedy for the waste disposal area. Building 310 covers potentially contaminated soil beneath the building footprint, and the shoreline stabilization features minimize erosion of the shoreline to the offshore area."

   Text regarding the soil cover component is already provided in this section.

2. **Comment:** Section 2.12.2, pp.36-37: Change "Within 90 days of ROD signature, the Navy shall develop a LUC RD that shall contain LUC implementation actions, including maintenance, monitoring and enforcement requirements that are consistent with the requirements under this ROD" to "Within 90 days of ROD signature, the Navy shall develop, prepare and submit to EPA for review and approval a LUC RD that shall contain LUC implementation actions, including maintenance, monitoring and enforcement requirements that are consistent with the requirements under this ROD.".

   Response: The text was revised as follows for the Waste Disposal Area and DRMO Area remedies: "Within 90 days of ROD signature, the Navy as lead agency shall develop, prepare, and submit to USEPA for review and approval a LUC RD as a primary document per the FFA that shall contain LUC implementation actions, including maintenance, monitoring and enforcement requirements that are consistent with the requirements under this ROD."

3. **Comment:** Fig. 2-3, p.38: The figure says that the LUC area includes the shoreline stabilization area, but the shoreline stabilization area continues off-map. Clarify and map exact LUC region.

   Response: Figure 2-3 shows a portion of the shoreline stabilization area associated with the waste disposal area and a portion associated with the DRMO area. The shoreline stabilization area on Figures 2-3 and 2-5 was revised to distinguish between the portion that is in the waste disposal area and the portion that is in the DRMO area.

4. **Comment:** Section 2.12.2, p.40: Same comment as regarding p.36.

   Response: The text in Section 2.12.2 related to the DRMO Area remedy was revised to read as follows: "The estimated limits of excavation are shown on Figure 2-5 and include the interim capped area and area southwest of Building 298 but do not include soil under Building 298. Building 298 is a critical existing site feature that must remain on site to cover potentially contaminated soil beneath the building footprint. The upper portion of the shoreline revetment adjacent to the excavation area will be removed as needed to enable excavation of soil along

the shoreline. Portions of the shoreline revetment removed as part of excavation activities will be replaced. The shoreline stabilization features minimize erosion of the shoreline to the offshore area as part of the remedy for the DRMO area."

5. **Comment:** Section 2.12.2, p.42: Same comment as regarding pp.36-37.

   Response: The text was revised as provided in the Navy's response to USEPA Comment No. 2.

6. **Comment:** ARARs (Appendix E).

   a) Both tables: For all location-specific ARARs (federal and state), in "Evaluation/Action to be Taken," add that these requirements continue to apply during operations & maintenance.

   b) Both tables: Add a new federal location-specific ARAR to reflect the new federal floodplain and wetlands requirements at 40 C.F.R. part 9. Here is a proposed item to replace both of these items:

Requirement	Citation	Status	Synopsis	Evaluation/Action to be Taken
Floodplain Management and Protection of Wetlands	40 C.F.R. 9	Relevant and Appropriate	FEMA regulations that set forth the policy, procedure and responsibilities to implement and enforce Executive Order 11988, Floodplain Management, and Executive Order 11990, Protection of Wetlands.	Remedial alternatives conducted within the 500-year floodplain of the Piscataqua River or within federal jurisdictional wetlands will be implemented in compliance with these standards.

   c) Both tables: Add a federal action-specific entry for the TSCA PCB remediation waste cleanup requirements at 40 C.F.R. § 761.61. Before finalizing the ROD, the Navy must apply in writing to EPA Region 1 for risk-based disposal approval regarding any PCB remediation waste, pursuant to 40 C.F.R. § 761.61(c). The ROD ARAR would then state that the Navy had applied for and received such an approval.

   Response:
   a) The text related to location-specific ARARs in Tables E-1 and E-2 was revised as suggested.
   b) The ARAR (44 CFR 9) related to Executive Order 11988, Floodplain Management, as it relates to 100-year floodplains, was added for OU2 because the OU2 shoreline is within the 100-year floodplain of the Piscataqua River. The evaluation/action to be taken will be as follows: "Remedial activities conducted within the 100-year floodplain of the Piscataqua River will be implemented in compliance with these standards." No OU2

remedial activities will be conducted in federal jurisdictional wetlands; therefore, Executive Order 11990, Protection of Wetlands was not added.

c) TSCA PCB remediation waste cleanup requirements was not added to Tables E-1 and E-2. As provided in the October 2010 responses to USEPA comments on the draft OU2 Feasibility Study Report (included in Appendix F of the final OU2 Feasibility Study Report, April 2011), there is no PCB remediation waste at this site and there is no evidence of PCBs at concentrations greater than 50 ppm; therefore, TSCA is not an ARAR for OU2.

7. **Comment:** Section 2.7.1: In the subsection entitled "Risk Characterization", change the next to last sentence on page 20 from "The ratio of exposure to toxicity is called a hazard quotient (HQ)." to "The ratio of exposure dose to the reference dose (RfD) is called a hazard quotient (HQ).

   Response: For clarity the sentence was revised as suggested.

8. **Comment:** Section 2.7.2: Change the last sentence of the 2nd paragraph from "The following are some of the specific activities conducted during and associated results of the onshore ecological risk assessment at OU2:" to "The following are some of the specific activities conducted during the onshore ecological risk assessment at OU2 and associated results:"

   Response: For clarity, the text was revised to read as follows:

   "Some of the specific activities conducted during the onshore ecological risk assessment at OU2 and associated results are discussed below."

9. **Comment:** Section 2.8: The 5th sentence in the 2nd paragraph should identify the remediation guidelines that were used. Assuming that EPA Regional Screening Levels were used, the sentence should be revised from "Dioxin/furan concentrations were less than residential and industrial remediation guidelines; therefore, they were not identified as COCs for remediation." To "Dioxin/furan concentrations were less than residential and industrial remediation guidelines (EPA Regional Screening Levels), therefore they were not identified as COCs for remediation."

   Response: Dioxin/furan concentrations were compared directly to residential and industrial ARARs (1 µg/kg and 20 µg/kg, respectively) as discussed in the OU2 Feasibility Study Report (April 2011). The text was revised to read as follows: "Dioxin/furan concentrations were less than residential and industrial remediation guidelines (OSWER Directive 9200.4-26); therefore, they were not identified as COCs for remediation."

10. **Comment:** Table 2-9: It appears that the language concerning MEDEP concurrence with WDA-3 in Table 2-8 was carried over into Table 2-9. The sentence should be changed from "[MEDEP concurs with Alternative WDA-3 and a letter of concurrence is included in Appendix A.]" to "MEDEP concurs with Alternative DRMO-4 and a letter of concurrence is included in Appendix A.]"

    Response: The table was corrected.

11. **Comment:** Section 2.11: This section asserts that the contaminant concentrations at OU2 are "not highly toxic or highly mobile, therefore principal threat wastes are not present at the site." Section 2.5.3 indicates that elevated concentrations of lead (>15000 mg/kg), copper (> 10,000

mg/kg), and PCB (> 10 mg/kg) were detected at the site. Please explain in Section 2.11 why these chemicals are not considered highly toxic or highly mobile.

Response: No text revision is required for the ROD. According to A Guide to Principal Threat and Low Level Threat Wastes (USEPA, 1991) (above Highlight 3 on page 2), "the principal threat/low level threat waste concept and the NCP expectations were established to help streamline and focus the remedy selection process, not as a mandatory waste classification requirement. Therefore, the classification of materials at OU2 as principal or low-level threat wastes is not meaningful at this point in the CERCLA process (documentation of selected remedy). However, discussion of principal threat wastes, if present, is a requirement per USEPA's ROD guidance.

High concentrations of a chemical do not mean that the chemical is highly toxic or highly mobile. For example, as shown in Table 2-4 of the ROD, copper concentrations were acceptable for all receptors except for residents. As provided in the USEPA guidance (1991), determination as to whether a source material is a principal or low-level threat waste should be based on the inherent toxicity as well as a consideration of the physical state of the material (e.g., liquid), the potential mobility of the wastes in the particular environmental setting, and the mobility and degradation products of the materials. Based on the information in the USEPA guidance (1991) as to what constitutes a principal threat waste, contaminated soil at OU2 is a low-level threat waste and not a principal threat waste because the concentrations of the COCs in soil are not highly toxic source materials and have low mobility in the specific environmental setting at the site. This is supported by the risk assessment results (Section 2.7) and the results of evaluation of fate and transport of contaminants (Section 2.5.3). Based on the evaluation of alternatives and selection of the remedy as documented in the ROD, it appears that the stakeholders are in agreement that the COCs can be "reliably contained" (appropriately addressed by a cover, LUCs, etc.) supporting a classification as a low-level threat waste.

12. **Comment:** Section 2.13: The text after the bullet entitled "Preference for Treatment as a Principal Element" should be reviewed because it states that treatment is not a principal element because there are no principal threat wastes at the site. Please revise if Section 2.11 does not explain why the elevated concentrations of lead (>15000 mg/kg), copper (> 10,000 mg/kg), and PCB (> 10 mg/kg) detected at the site are not principal threat wastes.

    Response: No change is required based on this comment. Please see the Navy's response to USEPA Comment No. 11.

RESPONSES TO MEDEP COMMENTS DATED SEPTEMBER 16, 2011
DRAFT RECORD OF DECISION FOR OPERABLE UNIT 2
PORTSMOUTH NAVAL SHIPYARD, KITTERY, MAINE

1. **Comment:** MEDEP agrees with US EPA's September 7, 2011 comments 1-5 and 7-12. Under EPA Comment 2 the additional language should say, "...prepare and submit to EPA and MEDEP for review and approval..."

   Response: No additional change to the text under EPA Comment No. 2 (regarding review and approval of the LUC RD) was made to the draft final ROD. The Navy will provide documents to MEDEP for review and comment as provided under the Federal Facility Agreement (FFA) for Portsmouth Naval Shipyard so that MEDEP will be provided an opportunity to review and comment on the LUC RD.

2. **Comment:** The ROD must include a discussion regarding the fact that the western boundary of Site 6 has not been delineated and therefore the extent of contamination at Site 6 is currently unknown. It should be explicitly stated that the ROD does not account for a remedy in this area. How will the Navy document a remedial decision for this area?

   Response: The boundary of OU2 has been delineated sufficiently to select remedies for OU2, and the selected remedy for the DRMO area in the ROD does account for possible OU2 contamination in the area west of the DRMO. As discussed during the development of the Sampling and Analysis Plan for Operable Unit 2 Pre-Design Investigation (Tetra Tech, November 2010), the maximum extent of potential impact from OU2 releases (based on past operations and physical barriers) was identified. In the SAP, the Navy, USEPA, and MEDEP agreed that the pre-design investigation boundary would be the maximum western OU2 boundary, that any hot spots of contamination found in the pre-design sampling area would be integrated into the excavation areas, and that any portion causing unacceptable residential risks would be integrated into the LUC boundary for any possible selected remedy for the DRMO area. The results of the pre-design investigation will support refinement of the western limits of the industrial excavation area on the western side of the DRMO area and refinement of the boundary for LUCs on the western side of OU2 as part of the Remedial Design.

   Text was added to the draft final ROD to indicate the potential for contamination west of the DRMO Storage Yard and how potential OU2 contamination in this area will be addressed as part of the selected remedy. The following provides the text additions (in bold and italics):

   Section 2.5.3, End of the first paragraph: "***Potential lead contamination from the DRMO Storage Yard (associated with snow plowing and loading and offloading of materials) may be present in an area immediately west of the DRMO Storage Yard. This potential contamination will be delineated as part of the Remedial Design (RD). The potential contamination in this area (based on limited sampling completed as part of the RI) indicates that contamination is similar to the DRMO Storage Yard; however, concentrations are generally lower and detections more sporadic. Therefore, the alternatives evaluated in the FS Report can also be applied to this area.***"

   Section 2.12.2, Paragraph under DRMO area related to excavation: "Excavation will consist of removal of an estimated 12,000 cy of contaminated soil associated with potentially unacceptable construction worker risk. ***The excavation area will be delineated based on***

lead concentrations exceeding 4,000 mg/kg and will include the portion on the western side of the DRMO area as necessary. Excavation of lead concentrations in excess of 4,000 mg/kg will result in post-remedial average exposure concentrations (EPC) that are less than the construction worker, occupational worker, and recreational user cleanup levels (2,000, 1,600 and 4,600 mg/kg, respectively). Therefore, excavation of contaminated soil ~~based on~~ **to eliminate unacceptable** construction worker risks will also eliminate potential***ly unacceptable*** risks to occupational workers and hypothetical recreational users. **Pre-design investigation data will be used to refine the western limits of the excavation area for the DRMO area. The RD will reflect any changes in excavation areas based on the pre-design investigation results. Excavation of contaminated soil will extend to a depth where there is very little soil and mostly rock (i.e., the rock fragment fill layer) or where contaminant concentrations are at acceptable levels for industrial land use.** ~~Soil will be excavated to~~ ~~***t***~~***The*** top of the rock fragment fill layer~~, which~~ has an average depth of 6 feet bgs but may be as deep as 10 feet bgs in the interim capped area and west of Building 298."

Section 2.12.2, Paragraph under DRMO area regarding LUCs: "LUCs will be implemented in the entire DRMO area through a LUC RD. The approximate LUC boundary at the DRMO area is shown on Figure 2-5. ***Pre-design investigation results will be used to refine the western limits of LUCs for residential use.*** The final LUC boundary ~~that will be~~ provided in the LUC RD will reflect any changes ***in the LUC boundary*** based on pre-design investigation results."

3. **Comment:** Please include a Table of Contents and a glossary or list of acronyms.

   Response: A Table of Contents and acronym list has been added to the ROD as requested.

4. **Comment:** 1.6, p. 4. In the last sentence change, "If contamination posing..." to "If previously unknown contamination posing..." (assuming this is what the Navy intended).

   Response: The text in Section 1.6 has been revised as suggested.

5. **Comment:** Should Table 2-1 include the Pre-Design Investigation? Although no conclusions have been made and the report is not finalized the investigation itself was performed.

   Response: The pre-design Investigation will not be added to Table 2-1 because it was not used to support the selection of remedies, and any conclusions based on the results of the investigation will be made as part of the RD. Additionally, the pre-design investigation does not provide new information that significantly changed the basic features of the Navy's proposed remedy for the DRMO area.

6. **Comment:** 2.5.2, p. 15, last paragraph. The second sentence should indicate that risk to occupational workers exposed to surface soil could also be a concern if the asphalt or interim cap were not maintained and cracks developed allowing exposure to surface soil.

   Response: The first two sentences were revised to read as follows for clarity: "For Site 6, which is paved or capped, the only ***current*** exposure would be for a construction worker exposed to surface and subsurface soil during construction activities. ~~Risks to occupational workers exposed to surface soil would be a concern~~ ***There would be future potential for occupational workers to be exposed to surface soil*** if the asphalt or interim cap was removed ***or compromised such that surface soil was exposed***."

7. **Comment:** 2.5.3, Nature and Extent, p. 17. Please include a figure indicating the extent of contamination at OU2. Also, include text indicating that the western boundary of contamination has yet to be defined. In the second paragraph indicate when the fate and transport modeling was conducted.

   Response: Text in Section 2.5.3 provides a summary of the nature and extent of contamination at OU2 that is provided in detail in the Supplemental RI Report for OU2. A reference to this report was added to Section 2.5.3 in the draft final ROD. The text and Figures 2-1 and 2-5 in the ROD provide sufficient detail on nature and extent of contamination to support the ROD.

   Please see the Navy's response to MEDEP Comment No. 2 regarding additional text on contamination in the western portion of the DRMO area. Text was added to indicate that the contaminant fate and transport modeling was conducted as part of the RI.

8. **Comment:** 2.7.1., p. 18. This section includes discussion regarding risk at the DRMO Impact Area calculated in the 2000 HHRA for OU2 and references Table D-4. As stated in the text additional contamination was found at the Impact Area in 2007/2008 thereby negating the results of the 2000 Impact Area risk assessment. Table D-4, and any other tables regarding the Impact Area from the 2000 risk assessment should be removed from the ROD or the Navy should indicate that they are included for historical purposes only and do not accurately indicate potential risk at the Impact Area prior to the 2010 removal action.

   Response: As provided in the Supplemental RI Report (March 2010), the results of the 2000 HHRA for OU2 are needed to understand the risks for the DRMO Impact Area and are therefore appropriate to be included in the ROD (see text in Section 5.2 and the Navy's response to MEDEP Comment No. 23 in Appendix D.1 of the final Supplemental RI Report). The 2000 HHRA provides the baseline risk assessment results for the DRMO Impact Area. Hot spots of lead and copper contamination were found in a portion of the DRMO Impact Area (backyards of Quarters S and N). The 2000 HHRA results and 2007/2008 data show that there are no other COCs for the DRMO Impact Area except for lead and copper in the backyard of Quarter S and N. The lead and copper contamination was removed in 2010, post-excavation risks for exposure to lead and copper in soil in this portion of the DRMO Impact Area were calculated, and the risks are acceptable. The ROD presents the 2000 HHRA risk results for the DRMO Impact Area and the post-excavation risks for lead and copper in the backyards of Quarters S and N to support that risks are acceptable in the DRMO Impact Area (and further action is not required for this area).

   The first sentence of the second paragraph under Section 2.7.1 was revised to clarify that lead and copper contamination from past DRMO Storage Yard operations was detected in ***a portion of*** the DRMO Impact Area.

9. **Comment:** 2.7.1, p. 19, first full paragraph. Please provide a footnote or some other reference for the cited EPA guidance.

   Response: The sentence was revised as follows: "As recommended in USEPA guidance ***[Integrated Exposure Uptake Biokinetic (IEUBK) Model and Technical Review Workgroup (TRW) Adult Lead Model guidance]***, the arithmetic mean was used as the EPC for lead."

10. **Comment:** 2.7.1, p. 22, DRMO Impact Area. See comment 8.

    Response: Please see the Navy's response to MEDEP Comment No. 8.

11. **Comment:** 2.8, p. 24, last paragraph. Please change, "The cleanup level for a resident..." to "The lead cleanup level for a resident..." as this sentence refers to the OSWER screening level of 400 mg/kg.

    Response: The text in Section 2.8 was revised as suggested.

12. **Comment:** 2.8, p. 24, last paragraph. "All of the cleanup levels are based on average residual soil concentrations, or EPCs, for the DRMO area and the waste disposal area." Except for lead, EPCs for calculation of risk in the 2000 HHRA were based on the 95% UCL of the soil concentrations. Why are they based on average concentrations here? It is possible that the EPC based on average is below the cleanup level while the EPC based on the 95% UCL is above the cleanup level.

    Response: For risk assessment, in accordance with USEPA guidance, the average exposure concentration is developed differently for lead than other chemicals. The average exposure concentration for lead is based on an arithmetic mean and the average exposure concentration for other chemicals is based on the 95-percent UCL on the mean. The text was revised to indicate average ***exposure*** concentration.

    For comparison of post-remedial exposure concentrations to cleanup levels, average exposure concentrations will be calculated in accordance with the most current USEPA risk guidance for such calculations, which is anticipated to be the arithmetic mean for lead and the 95-percent UCL on the mean for other COCs.

13. **Comment:** Table 2-6, p. 26, Alt. WDA-3 LUCs. This section discusses LUCs preventing unauthorized digging in the proposed soil cover limits. The Final FS for OU2, p. 2-12, states, "Construction activities are anticipated to be limited at OU2; there are no plans to construct additional buildings based on current land use. Therefore, construction worker exposure to contaminated soil is most likely to occur during utility repair or upgrade that requires excavation of soil." Are there utilities located within the proposed soil cover limits? If not, based on the FS text, it appears there would be no reason to excavate soil within this area. Therefore, it would be more protective to prevent any digging (not just unauthorized) within this area except for critical reasons. If there are utilities in this area is it possible that they could be moved so that no excavation would be necessary?

    Response: No text revision was made based on this comment. Digging will be permitted within the area as long as the activity has been approved by the Navy and is conducted in accordance with the LUCs for the area. Utilities from Building 310 run beneath the proposed soil cover limits, and it would be much more difficult to move the utilities than to provide specifications on necessary actions (such as health and safety precautions for construction workers and soil management and soil cover repair requirements) if excavation in the area is necessary.

14. **Comment:** 2.10, p. 32, Comparative analysis of Alternatives, Threshold Criteria - WDA. "Both Alternative WDA-3 and WDA-4.....would be equally protective and provide the most protection...". WDA-4 involves removing soil to 6 feet whereas WDA-3 removes soil to 2 feet. Therefore, the potential for a construction worker to come in contact with contaminated soil is greater for WDA-3. Please discuss the post-excavation lead EPC for WDA-3 as compared with the post-excavation lead EPC for WDA-4.

Response: No text revisions were made based on this comment. Post-excavation lead EPCs were not calculated for Alternatives WDA-3 and WDA-4 because a physical barrier (soil cover) and LUCs are included in the remedy in addition to excavation to reduce risks to acceptable levels. Although Alternative WDA-4 removes soil to 6 feet bgs and Alternative WDA-3 only removes soil to 2 feet bgs, both alternatives involve construction of a soil cover, LUCs (including dig restrictions), and monitoring, both require the soil cover and LUCs to reduce risks to acceptable levels, and therefore they are considered equally protective.

15. **Comment:** 2.12.1, p. 40, LUC performance objectives. This list should also include instituting dig restrictions at unexcavated areas of the DRMO that contain lead concentrations greater than 4000 mg/kg.

    Response: As part of the selected remedy for the DRMO area, the limits of excavation of contaminated soil associated with potentially unacceptable construction worker risk will be delineated based on lead concentrations exceeding 4,000 mg/kg, consistent with the delineation of remediation areas in the FS Report for OU2 (April 2011). As shown in the FS Report, excavation of contaminated soil based on construction worker risks will also eliminate potential unacceptable risks to occupational workers and hypothetical recreational users in the DRMO area. Therefore, dig restrictions are not necessary as part of LUCs. Text in Section 2.12.2 was revised to clarify that the excavation limits will be delineated based on lead concentrations exceeding 4,000 mg/kg.

    The last bullet in the LUC objectives was revised to indicate to provide requirements for proper management of excavated soil from the DRMO area as part of any future construction or maintenance activities.

16. **Comment:** Fig 2-5 shows excavation limits for the DRMO area which imply that there will be no excavation beyond what is shown in the figure. There have not been any discussions among the Navy, USEPA, and MEDEP regarding the high concentrations of lead seen in the pre-investigation design area, nor has the western boundary been fully delineated. Therefore, it is possible that excavation will be required in the western part of Site 6. The text should indicate this possibility.

    Response: Please see the Navy's response to MEDEP Comment 2 for text revisions to discuss the western area.

17. **Comment:** Table 2-10, p. 43, first Comments box. "Excavation of surface soil…and construction of a soil cover will address unacceptable risks…" "Address" is a bit vague. It would be better to say the remedial actions will prevent risk or reduce risk to acceptable levels or something similar.

    Response: "Address" was replaced with "reduce risk to acceptable levels" as suggested.

18. **Comment:** App. B, PRAP. It would be useful to attach MEDEP and USEPA comments and the Navy's responses to this appendix.

    Response: The Navy's responses to MEDEP and USEPA comments on the PRAP were not added to Appendix B as suggested. The final version of the PRAP incorporated revisions based on the responses to comments on the draft PRAP.

19. **Comment:** App. E, Tables E-1 and E-2. The Navy must include as To Be Considered (TBC) the Maine DEP and CDC June 2009 "Guidance for Human Health Risk Assessments for Hazardous Substance Sites in Maine" and MEDEP's 2010 "Remedial Action Guidelines for Soil Contaminated With Hazardous Substances" under State Chemical-Specific ARARs in both tables.

    We recognize that EPA has previously instructed the Navy to remove these guidance documents from ARARs tables stating, "Under CERCLA and the NCP only federal risk standards are used for CERCLA risk assessment, so remove the citations to the state guidance" (Jan. 5, 2010 USEPA comment letter on Draft FS for OU1). MEDEP disagrees with EPA's comment.

    The State's position is supported by EPA's Feb. 12, 1998 memorandum Use of Soil Cleanup Criteria in 40 CFR Part 192 as Remediation Goals for CERCLA Sites, Directive no. 9200.4-25. This memo states, "To-be-considered material (TBCs) are non-promulgated advisories or *guidance issued* by *Federal or State governments* that are not legally binding and do not have the status of potential ARARs. However, *TBCs will be considered along with ARARs as part of the site risk assessment* and may be used in determining the necessary level of cleanup for protection of health and the environment [emphasis added].

    Likewise, EPA's August 1988 CERCLA Compliance with Other Laws Manual: Interim Final (EPAl540lG-891006) states,

    "Superfund staff should also consider Federal and State environmental and public health criteria, advisories, guidance, and proposed standards ("to-be-considered" materials, or TBCs). TBCs will be evaluated along with ARARs as part of the risk assessment conducted for each CERCLA site..." (1.2, p. 1-6)

    "As a starting point for setting cleanup goals, the risk calculations are developed using chemical specific requirements. If there are no chemical-specific ARARs, then specified Federal or State TBC values are used in the calculations." (1.2.3.1, p. 1-13)

    In addition, EPA's 1989 publication 9434.2-05/FS, CERCLA Compliance With State Requirements, states,

    "Although they are not ARARs, State advisories, guidance and policies, etc., may help EPA define and develop protective remedies and interpret State laws. These State policies and guidance, known as 'to be considered'. . .are not potential ARARs because they are neither promulgated nor enforceable. It may be necessary to consult TBCs to interpret ARARs or to determine preliminary remediation goals when ARARs do not exist for particular contaminants. States should indentify or communicate to EPA TBCs that they consider to be pertinent to the remedy."

    In addition, as stated in MEDEP's letter to EPA dated April 5, 2010, both the Guidance Manual for Human Health Risk Assessments and the Remedial Action Guidelines have been listed as TBCs in other State of Maine Records of Decision for Navy CERCLA sites. The Human Health Risk Assessment Guidance has been listed as a TBC in the RODS for the Portsmouth Naval Shipyard Operable Unit 3 and for Brunswick Naval Air Station's Site 7.

    We note that there are no Federal Chemical-Specific ARARs for this site (only TBCs) and therefore these State guidance documents are as relevant as the Federal TBCs. Finally, for at

least the past 15 years, the Navy's IR program has taken Maine's risk assessment guidance manual and soil remedial action guidelines under consideration for all investigations and cleanups. Therefore, it makes no sense to indicate they are not considered by excluding them from the ARARs table.

Response: No revision to the ARARs tables in Appendix E were made based on this comment. The guidelines may be TBCs but they were not used to develop remediation goals at OU2 and therefore are not included in the OU2 ROD ARARs tables. The tables in Appendix E only include ARARs and TBC that are directly applicable to the selected remedies.