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LETTER AND U S NAVY RESPONSE TO MAINE DEPARTMENT OF ENVIRONMENTAL
PROTECTION COMMENTS REGARDING DRAFT REMEDIAL INVESTIGATION REPORT
FOR OPERABLE UNIT 9 (OU 9) NSY PORTSMOUTH ME
09/09/2011
TETRA TECH NUS



TETRA TECH

PITT-09-11-030

September 9, 2011

Project Number 112G02214

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Mr. Iver McLeod
Maine Department of Environmental Protection
State House Station 17
Augusta, Maine 04333-0017

Reference: Contract No. N62470-08-D-1001 (CLEAN)
Contract Task Order No. WE26

Subject: Responses to MEDEP Comments Dated June 17, 2011 on the
Draft Remedial Investigation Report for Operable Unit 9
Portsmouth Naval Shipyard (PNS), Kittery, Maine

Dear Mr. Audet/Mr. McLeod:

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) and to the Maine Department of Environmental Protection (MEDEP) 2 and 3 copies, respectively, of the subject responses to comments. USEPA had no comments on the draft document.

In accordance with the project schedule, comments are due by **October 10, 2011**.

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,

Deborah J. Cohen, P.E.
Project Manager

DJC/clm
Enclosure



TETRA TECH

Mr. Matthew Audet
Environmental Protection Agency
Mr. Iver McLeod
Maine Department of Environmental Protection
September 9, 2011 – Page 2

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**RESPONSES TO MEDEP COMMENTS DATED JUNE 17, 2011
DRAFT REMEDIAL INVESTIGATION REPORT FOR OPERABLE UNIT 9
PORTSMOUTH NAVAL SHIPYARD, KITTERY, MAINE**

General Comment from MEDEP email submittal

“As I've said before, we had similar issues for the HHRA for both the OU7 and OU9 RI reports so agreements we made for OU7 can also apply to OU9.”

Response: The issues from the OU7 RI Report that relate to the OU9 RI Report are provided in a table attached to these responses to comments. The table provides the first three columns for the action item resolution for OU7 (provided in Appendix E.2 of the Draft Final OU7 RI) and relevance of the issue to OU9, and how it is or will be addressed in the OU9 RI Report.

Specific Comment

1. **Comment:** Executive Summary, ES-1. “...therefore site contaminants do not contact groundwater.” After this sentence please add something such as, “Leaching of contaminants to groundwater is not an issue at this site as discussed below.”

Response: The following will be added as the fourth sentence in the second paragraph on page ES-1:

“Leaching of contaminants to groundwater is not a concern because the site contaminants have relatively low water solubilities and typically bind to site soils and are relatively immobile.”

2. **Comment:** 1.1 Purpose and Scope, p. 1-1. After the last sentence on the page indicate why bedrock groundwater at OU9 is not a concern.

Response: To indicate why bedrock groundwater at OU9 is not a concern, the following sentence will be added after the last sentence on page 1-1:

“Groundwater in bedrock was not investigated because site contamination is present in soils located above bedrock and these contaminants are considered immobile, as detailed in Section 5.1.”

3. **Comment:** 1.4. Summary of Environmental Concerns, p. 1-7, 2nd sentence. Please strike the word “clean” as the fill material has levels of PAHs above EPA screening levels and MEDEP residential soil guidelines.

Response: For clarity the 2nd sentence on page 1-7 referred to above will be revised to read as follows:

“The majority of ash was excavated and the area backfilled with fill material from an off base borrow source (Shaw, July 2008).”

4. **Comment:** 2.2. Data Usability, p. 2-2. The second to last paragraph discusses unexpected lead and PAH results from the fill material and indicates additional samples were collected. The

last paragraph only mentions lead. Please indicate whether or not additional elevated PAH concentrations were detected.

Response: PAHs concentrations in the additional fill samples were similar to 2009 results. The following sentence will be added before the last sentence of the last paragraph on page 2-2:

“Concentrations of PAHs in backfill material were similar to concentrations detected during the 2009 RI sampling event.”

5. **Comment:** 2.2 Data Usability, p. 2-3 Bullet 1, last sentence. Please change the last “OU9-22” to “OU9-13.”

Response: The requested change will be made as requested.

6. **Comment:** 3.2.1 Shoreline Protection, p. 3-3. “The finished slope of the shoreline was 1:1 or less, as shown on as-built drawings.” Is this sentence referring to the elevation contours shown on the as-built drawings? These are very difficult to read. Should this sentence have referred to Fig. 3-3, Cross-section B-B’?

Also, the first section of this section seems to be missing some words from the end, probably “was installed.”

Response: The fourth sentence of Section 3.2.1 is referring to elevation contours shown on the as-built drawings as stated; however, one could also refer to Figure 3-3 to view the slope. The fourth sentence of Section 3.2.1 will be modified to read as follows:

“The finished slope of the shoreline was 1:1 or less, as shown on as-built drawings and Figure 3-3.”

The first sentence of Section 3.2.1 will be modified to read as follows:

“...and shoreline protection, with the approximate dimensions of 150 feet by 40 feet, using a 6-ounce geotextile separation layer and heavy riprap (stones with a minimum weight of 500 pounds and approximately 50 percent of stones less than 1,000 pounds) was installed.”

7. **Comment:** 3.2.1 Shoreline Protection, p. 3-4. “As-built drawings of pre-excavation, excavated, and post-excavation topographic conditions are provided in Appendix A.” It appears that only pre-excavation and post-excavation as-built drawings are provided in App. A.

Response: Pre-excavation and excavated topographic as-built drawings are provided in Appendix A. The post-excavation figure will also be provided in Appendix A.

8. **Comment:** 3.5.2. OU9 Hydrogeology, p. 3-11. Please indicate that OU9 bedrock groundwater was not investigated and therefore no conclusions regarding groundwater properties can be made.

Response: The following sentence will be added to the end of section 3.5.2:

“As discussed in Section 1.1 and detailed in Section 5.1, bedrock groundwater was not investigated; therefore, site-specific information on bedrock groundwater conditions are not available.”

9. **Comment:** 3.8 Climatology, p. 3-14. “...because of its location near the ocean, there tends to be a little less snow and more rainfall in Portsmouth than in Portland.” Both cities are essentially on the ocean. Therefore, it is unlikely that this is the reason for less snow in Portsmouth. Please revise or remove this statement.

Response: The last sentence on page 3-14 will be deleted.

10. **Comment:** 4.0, Nature and Extent, p. 4-1, final paragraph. The maximum background concentration is relied on for more than just general understanding of nature and extent in this evaluation. The representative background concentrations are more appropriate, particularly since most of the site has fill at the surface.

Response: Within the Nature and Extent discussion, maximum background concentrations from PNS were used to provide a point of comparison for the concentrations detected at OU9. The facility background concentration ranges are also included in the table presentation of data in Section 4.0. A statistical background comparison using representative background concentrations was performed to aid in the chemical of potential concern (COPC) selection process as part of the human health risk assessment, as discussed in Section 5.0.

11. **Comment:** Section 4.1, para. 2. Although PAH concentrations are not as high in the unexcavated area as those in the ash (10,000s mg/kg) there are 8 of 19 that exceed the industrial screening level. Please revise the text to indicate they are moderate *relative to the range of site concentrations*.

Response: Paragraph 2 of Section 4.1 and the information in this comment is related to the excavated area, not the unexcavated area. The second sentence of the first paragraph on page 4-2, related to PAH concentrations in the excavated area, will be revised to read:

“..., and concentrations of PAHs were moderate to low, relative to the range of site concentrations.”

12. **Comment:** 5.1.1. Polycyclic Aromatic Hydrocarbons, p. 5-2. In the first sentence of the last paragraph in this section please add “overburden” before “groundwater”.

Response: The first sentence of the last paragraph in Section 5.1.1 will be revised to read as follows:

“The mobility of PAHs via the groundwater pathway at OU9 is not considered significant because no overburden groundwater is present at the site.”

13. **Comment:** 5.2.2, Potential Exposure Routes, p. 5-4, para. 2. “Recreational users are not likely to be exposed to soil in this area under current conditions because soil is covered with grass and trees.”

Grass is not a substitute for a true cover of hazardous materials, due to the reworking and mixing of soils by freeze-thaw, creation of dust if the grass is dead or dried out, etc. MEDEP understands the value of keeping remaining stands of trees in place at the Shipyard, but Navy

must ensure that the grass is maintained to reduce exposure to the ash present in the unexcavated area.

Response: For clarification, the fifth sentence of the second paragraph in Section 5.2.2 will be revised to read as follows:

“Future occupational and recreational exposure to surface soil is possible if the asphalt or grass cover is removed or not maintained.”

14. **Comment:** 5.3. Contaminant Fate and Transport Summary, p. 5-5. In the last sentence add, “...as long as future site conditions remain equivalent to current site conditions.”

Response: There are small isolated subsurface pockets of burnt material/ash that could erode if brought to the surface. However, these do not present a significant contaminant migration pathway. For clarification, the last sentences in Section 5.3 will be revised to read as follows:

“The major transport mechanisms of OU9 contaminants are soil erosion and surface water runoff; however, because most of the site contamination was removed, offsite migration of remaining contamination in the subsurface is not expected under current or future site conditions. Subsurface soil contamination being brought to the surface in the future is unlikely because the majority of that contamination is near a main water line located near a steep slope adjacent to the coast. However, in the unlikely event that subsurface soil contamination was brought to the surface in the future, significant contaminant migration would not occur due to the minimal volume of contamination remaining on site.”

15. **Comment:** 6.2.2 Selection of Chemicals of Potential Concern, p. 6-7. In the last sentence of the first paragraph, after “...not present at OU9” add language such as, “and, as discussed in Section 5.0, these compounds do not easily leach from soil.”

Response: Whether or not the site contaminants leach easily from soil does not affect the decision to not evaluate soil screening levels (SSL) for groundwater protection (for a drinking water exposure scenario). SSLs for groundwater protection were not evaluated because overburden groundwater is not present at the site; therefore, no change is proposed based on this comment.

16. **Comment:** 6.2.2. Background Concentrations Comparison, p. 6-7. “Several chemicals were not selected as COPCs based on the results of the background comparison.” As stated in the 2009 MEDEP *Guidance for Human Health Risk Assessment for Hazardous Waste Sites*, “...neither USEPA nor DEP/MeCDC permits the exclusion of inorganic or organic compounds from the human health risk assessment based on comparison to background levels. As discussed in our April 8, 2011 call regarding the OU7 Draft RI Report, the MEDEP would be satisfied with a discussion and presentation of background cumulative risks (EPA Remedial Action Guidance for Superfund Table 9) in an appendix.

It is important to recognize that no contaminants from the fill should be eliminated as COPCs based on background, even taking into account Navy policy. This is because the fill material in no way reflects background Shipyard activity as it was imported from off Seavey Island.

Nevertheless, as long as the cumulative risks are presented in the report as discussed above, the proper management decisions can be made.

Response: Navy policy is to eliminate from the baseline risk assessment process both naturally occurring and anthropogenic chemicals present at concentrations less than background and document these chemicals in the corresponding report. Whether or not the fill material used at OU9 reflects background Shipyard activity is irrelevant. The contamination in that fill material is either naturally occurring or from an anthropogenic source and is present at levels less than background; therefore, those contaminants in the fill material should be eliminated as COPCs based on Navy background policy.

Potential cumulative risks, including chemicals attributed to background, were calculated and presented in Appendix C.3. A brief summary of the information presented in the RAGs Part D tables in Appendix C.3 will be added to the appendix. A statistical evaluation (in Appendix B) was conducted to support identification of chemicals similar to background. A discussion of potential risks from chemicals eliminated due to background is presented in Section 6.5.

17. **Comment:** 6.3.4 Exposure Point Concentrations, p. 6-12. EPCs must be calculated for contaminants eliminated as COPCs based solely on background.

Response: EPCs for these chemicals are presented in Appendix C.3, which presents cumulative risks, including chemicals attributed to background. Reference to EPCs being presented in Appendix C.3 will be added to Section 6 text.

18. **Comment:** 6.4.3 Toxicity Criteria for Carcinogenic Effects of PAHs, p. 6-16. Please clarify how the default ADAFs were selected.

Response: The default ADAFs are from the USEPA guidance document Supplemental Guidance of Assessing Susceptibility from Early-Life Exposure to Carcinogens.

The text will be modified to read as follows to identify the source of the ADAFs:

“...the following defaults from USEPA guidance (March 2005b) were used: 10 for ages 0 to 2, three for ages 2 to 16, and one (no adjustment) for ages 16 to 70.

19. **Comment:** 6.5 Risk Characterization, p. 6-16. “...contaminants with concentrations that exceed screening levels but that do not exceed site background levels are likely representative of regional contamination, not site-related contamination.” Clearly contaminants in the fill are not a result of past Site 34 activities. Nevertheless, these contaminants came to be located at Site 34 due to Navy activities. Therefore the Navy must calculate risks for all compounds in the fill with maximum concentrations greater than the RSL for carcinogens or one-tenth the RSL for non-carcinogens.

Response: No revision to the calculation of risk is necessary based on this comment. Please see the Navy’s response to MEDEP comment number 16.

20. **Comment:** 6.7.1.3 Exposure to Lead, p. 6-34. “...lead concentrations were determined to be within site background concentrations. Therefore, adverse receptor effects are not anticipated due to soil lead exposure at OU9.” The fact that site concentrations are within background concentrations has nothing to do with whether or not adverse effects will occur. Adverse effects may occur if concentrations, background or site-related, exceed some risk level. Please strike this sentence.

Response: For clarification the second sentence of Section 6.7.1.3 will be deleted and the following text will be added to the end of the first sentence in that section:

“...; however, blood-lead concentrations were modeled for the background evaluation, as described below.”

21. **Comment:** 7.1.2 Fate and Transport of Contaminants, p. 7-2. Please add a brief discussion to this section indicating that leaching of contaminants from subsurface soil to bedrock groundwater is not a concern since PAHs tend to bind to soil particles (as discussed earlier in the report).

Response: The following statement will be added to Section 7.1.2 before the first complete sentence of page 7-2 to indicate that leaching to bedrock groundwater is not a concern:

“Contamination is not expected in bedrock groundwater because the site contaminants (PAHs) present in subsurface soil located above the bedrock have relatively low water solubilities and tend to bind to soil particles rendering them immobile.”

22. **Comment:** 7.2.1 Conclusions, p. 7-4. “Based on the risk evaluation, subsurface soil is a potential medium of concern for OU9.” Based on the risk evaluation surface soil is also a potential medium of concern for OU9 when comparing to MEDEP’s target ILCR of 1×10^{-5} . Please incorporate this information into Section 7 using language similar to that used in Section 7 of the OU7 RI.

Response: Surface soil is acknowledged as exceeding the State of Maine cancer risk guideline in Section 7.1.3 Risk Assessment, which is consistent with the OU7 RI Report. See page 7-3 of the OU9 RI.

23. **Comment:** Appendix A.1, Table A-2. The overburden calculation needs to be limited to the 10-foot depth evaluated by the risk assessment. The most likely exposures are in the top five feet, ash is fairly widespread spatially across the site, and inclusion of depths beyond 10 feet simply dilutes the percent ash present at the site. This volumetric approach is interesting, but may under-represent risks. If this were applied to sites with deep overburden, virtually any concentration could be present below 2 feet and would be interpreted to represent no risk.

In addition, although ash is certainly associated with the highest PAH values, there are several borings with benzo(a)pyrene equivalents in the range of 1-58 mg/kg that have no ash identified in their logs, often in the recent fill material. These locations include OU-15, OU-18, OU-19, OU-20 and OU-22. Were these concentrations applied to ash or non-ash portions of the site? MEDEP was unable to locate the calculations for the weighted EPC values, to confirm which concentrations were applied to ash vs non-ash soils. Please reference their location or provide the calculations.

Response: a.)The overburden calculation will be reevaluated limiting sample depths to 10 feet bgs. Only 16 of 136 sample evaluated were deeper than 10 feet, the deepest being 17 feet bgs and most around 11 to 13 feet bgs. The preliminary recalculation shows no change to the overall conclusion that approximately 5 percent of the site subsurface soil contains burnt material/ash.

b.) Concentrations of chemicals in soil were not considered when determining percent ash. Per Table A-1, locations OU-15, OU-18, OU19, OU-20, and OU-22 were applied to non-ash portions of the site.

c.) Weighted EPC values are 95% Upper Confidence Limits calculated on weighted average concentrations using the T-statistic, as presented in tables at the end of Appendix C.2 (pages 663 to 674 of Draft RI pdf file). Example calculations will be added to Appendix C.2.

24. **Comment:** Section 4 and Appendix B. The graphical evaluation and the data tables indicate that a new approach is needed for the background comparisons of compounds where the detection limit in new site samples is multiple orders of magnitude lower than detection limits for background samples. This is an issue for the PAHs and to a lesser extent antimony and mercury, particularly where $\frac{1}{2}$ the detection limit is used in calculations and plots.

Based on the data tables the full background dataset was utilized rather than the screened version described in the Facility Background Study Development report that removes outliers and the BGS-05 location. Please revise the tables and the background evaluation as needed or justify inclusion of the full dataset.

Response: The background analysis for OU9 was performed in accordance with Procedural Guidance for Statistically Analyzing Environmental Background Data (NAVFAC, September 1998) and Guidance for Environmental Background Analysis Volume I: Soil (April 2002), and USEPA's Guidance for Comparing Background and Chemical Concentrations in Soil for CERCLA Sites (USEPA, September 2002). The background dataset was evaluated previously for outliers, in accordance with the USEPA's Background Guidance, and as stated in the responses to MEDEP comment 5 on the Draft Site 34 SSI, the background datasets were found to contain no outliers (Tetra Tech, August 2004). Background sample BGS-05 was not used in the background analysis as this location was determined to be associated with OU7 and not representative of background concentrations. The same background methodology and data set were used in the draft OU7 RI Report (Tetra Tech, October 2010). Therefore, no changes are necessary for the background evaluation.

25. **Comment:** App. B, Background Comparisons, Methodology, p. 1. Please indicate what software package was used to perform the various tests, e.g. Quantile test, Gehan test, etc.

Response: ProUCL 4.0.05 was used to conduct the Wilcoxon Rank Sum Test, Quantile Test, and Gehan Test. Summary statistics, data distribution, and graphical displays were conducted using the statistical package R version 2.9.2. The Slippage Test was computed by hand.

26. **Comment:** Appendix B, Background Comparisons, Table 1. Note 4 indicates that if more than 4 site concentrations are greater than the maximum background concentration the site is shifted above background. Is that value of 4 based on numbers of samples or other factors?

Response: The four site concentrations referenced in Note 4 are the critical values for the Slippage Test. There are different critical values for various combinations of site and background samples sizes. The critical values for the Slippage Test as stated in Note 4 are from Table C-3 of Guidance for Environmental Background Analysis Volume I: Soil, NFESC User's Guide UG-2049-ENV April 2002.

LIST OF OU7 ACTION ITEMS FROM APRIL 8, 2011 CONFERENCE CALL THAT APPLY TO OU9

OU7 RI Comment/Issue ⁽ⁱ⁾	Summary of Conclusions for OU7 RI ⁽ⁱ⁾	Action Item for OU7 ⁽ⁱ⁾	Applies to OU9
<p>No. 34/Chemical of Potential Concern (COPC) screening based on background. MEDEP requested that the RI Report include information to show cumulative risks that include chemicals screened out based on the background comparison so that risk information is available in the document.</p>	<p>Navy policy is to present baseline risks without chemicals that represent background. A statistical evaluation (in Appendix B.2) was conducted to support identification of chemicals similar to background. The draft OU7 RI provides the evaluation of chemicals screened out based on background in the uncertainty section (Section 6.6). Potential risks for these chemicals were calculated and presented in Appendix D.7.3. Cumulative risks were not provided; however, information is available to calculate cumulative risk. Based on the conference call discussion, the Navy agreed to provide cumulative risk calculation in Appendix D.7. No change to the risk conclusions in Section 7.0 is needed based on the discussion.</p>	<p>Tetra Tech will prepare cumulative risk tables (RAGS Part D tables) to include in Appendix D.7 and any text revisions based on the discussion and provide these to the Navy for distribution to the team.</p>	<p>Yes. Cumulative risks including background are provide in Appendix C.3 and discussed in Section 6.5.5 of the draft OU9 RI. An introductory text will be added to Appendix C.3 to explain the contents of that appendix.</p>
<p>No. 16/PCBs (Aroclors) as COPCs. Aroclor 1248 and Aroclor 1260 were screened out as COPCs based on frequency of detection; however, there were some samples that had elevated detection limits and the maximum detections were much greater than the screening levels. MEDEP requested that these Aroclors be added as COPCs and included in risk calculations.</p>	<p>A small number of samples had elevated detection limits for these Aroclors and this would not change the conclusions to screen out these chemicals based on low frequency of detection. However, the project team previously identified a PCB hot spot after the 2003 Phase I RI sampling and further investigated the hot spot area as part of the 2008 Phase II RI sampling. Therefore, PCBs were evaluated in the uncertainty section (Section 6.6) in the draft RI and PCBs were included as chemicals of concern (COCs) (Section 6.7.3). The Navy agreed to include Aroclor 1248 and Aroclor 1260 in the calculation of cumulative risks in Appendix D.7. No change to the risk conclusions in Section 7.0 is needed based on the discussion.</p>	<p>Tetra Tech will prepare cumulative risk tables to include in Appendix D.7 and any text revisions based on the discussion and provide these to the Navy for distribution to the team.</p>	<p>No. PCBs are not COCs for OU9.</p>
<p>Nos. 47 and 51/Exposure assumptions for intertidal area. MEDEP agrees with the exposure assumptions the Navy proposed based on current site conditions, but is concerned that if site conditions changed, the exposure assumptions may not be valid. MEDEP requested that text be added to clarify the basis for the exposure assumptions, and that these are based on current conditions.</p>	<p>In the past, contaminated fill material at OU7 eroded from the shoreline to offshore sediment that caused contamination in the sediment. A shoreline revetment was placed as part of the 2006 removal action to prevent further erosion. Concerns for future erosion are discussed in the RI (Section 5.3), and the risk conclusions indicate that shoreline controls are needed to prevent contaminated fill along the shoreline from eroding in the future (Section 7.2.1). The controls cover the mid- to high-tide zone of the shoreline and only sediment below the mid-tide level is exposed. The sediment in the low-tide zone is soft, hard to walk on, and only exposed for a short time of the tidal cycle. Therefore, the human health exposure assumptions are valid for current conditions. Information on current shoreline conditions is provided in Section 3.2.1 of the RI. The Navy agreed to include a reference to or additional discussion of the shoreline in the risk section (Section 6.3.5) to provide the basis for the exposure assumptions in the HHRA. Uncertainty related to future shoreline conditions will be discussed in the uncertainty section. No change to the risk conclusions in Section 7.0 is needed based on</p>	<p>Tetra Tech will prepare text revisions to expand on the justification for the exposure assumptions for the intertidal area in the HHRA and provide these to the Navy for distribution to the team.</p>	<p>No. Intertidal exposure is not relevant to OU9.</p>

LIST OF OU7 ACTION ITEMS FROM APRIL 8, 2011 CONFERENCE CALL THAT APPLY TO OU9

OU7 RI Comment/Issue ⁽ⁱ⁾	Summary of Conclusions for OU7 RI ⁽ⁱ⁾	Action Item for OU7 ⁽ⁱ⁾	Applies to OU9
<p>No. 37/Presentation of risk drivers that exceed Maine risk guidelines in the risk assessment. MEDEP requested that text be added to Section 6.7.3 to discuss the carcinogenic risk drivers based on Maine guidelines and not only refer to Tables 6.1 and 6.2 for the information.</p>	<p>the discussion.</p> <p>The Navy expressed concern with use of Maine risk guidelines for risk management or development of cleanup levels because these guidelines are not promulgated. The Maine risk guidelines are not included as regulatory requirements in the OU2 Feasibility Study (FS) (April 2011) or OU1 Record of Decision (ROD) (September 2010). MEDEP indicated that the information was being requested for the risk assessment (Section 6.7.3) for completeness and was not requesting the Maine risk guidelines to be used for making risk management decisions or developing cleanup levels for OU7. The Navy agreed to include the text noting risk drivers based on Maine risk guidelines with clarification that the Maine guidelines are not regulatory requirements for cleanup. The clarification will also be included in Section 7.0 text. No change to the risk conclusions is needed based on the discussion.</p>	<p>Tetra Tech will prepare text revisions for Sections 6 and 7, and provide these to the Navy for distribution to the team.</p>	<p>Yes. The information is provided in the draft OU9 RI (see Section 6.5.3).</p>
<p>No. 31/Vapor intrusion evaluation is not necessary for OU7 because volatile contaminant levels are low. MEDEP agrees with the Navy response and requested that supporting information for why vapor intrusion was not a pathway of concern be included in the Section 6 of the RI.</p>	<p>The Navy agreed to include the clarifying text in Section 6.0, based on information in the Navy's response. No change to the risk conclusions is needed based on the discussion.</p>	<p>Tetra Tech will prepare text revisions and provide these to the Navy for distribution to the team.</p>	<p>Yes. Vapor intrusion is discussed in the draft OU9 RI briefly on p. 6-10. Additional text regarding contaminants not being a vapor intrusion concern will be added to the text.</p>
<p>No. 32/Former Location of Building 237 Decision Unit. MEDEP agreed with the Navy's response and with the information included in the text.</p>	<p>Based on discussion, it was agreed that the text revisions proposed in the March 2011 response to comment is sufficient and no additional revisions are needed.</p>	<p>No additional action required.</p>	<p>No. This is an OU7 issue only.</p>

LIST OF OU7 ACTION ITEMS FROM APRIL 8, 2011 CONFERENCE CALL THAT APPLY TO OU9

OU7 RI Comment/Issue⁽ⁱ⁾	Summary of Conclusions for OU7 RI⁽ⁱ⁾	Action Item for OU7⁽ⁱ⁾	Applies to OU9
<p>No. 36/Hexavalent chromium. MEDEP expressed concern with documentation that hexavalent chromium is not a COPCs for OU7 and that trivalent chromium is an appropriate surrogate for total chromium results.</p>	<p>The decision that hexavalent chromium and other chemicals (VOCs and cyanide) are not COPCs was made as part of the development of the RI sampling plan (in 2003). Hexavalent chromium was not detected in the one surface soil sample that was analyzed for hexavalent chromium and was only detected in one of seven subsurface soil samples at concentrations below the screening value. Based on the hexavalent chromium data from the SSI the OU7 RI QAPP concluded that additional sampling for hexavalent chromium was not required. Therefore, none of the RI samples were analyzed for hexavalent chromium. Text in the RI may need to provide additional clarification as to why hexavalent chromium is not a COPC and that trivalent chromium is an appropriate surrogate for total chromium results in the risk assessment.</p>	<p>MEDEP will review the RI QAPP to see whether they have any further questions. Tetra Tech will review the text and RI QAPP to determine any additional text revisions to clarify use of trivalent chromium as surrogate in the risk assessment. [Post Meeting Note: MEDEP stated in an email dated April 20, 2010 that additional justification for the assumption that trivalent chromium is an appropriate surrogate for total chromium is not needed. Text justifying the use of trivalent chromium as a surrogate will be added to Section 6.6.3].</p>	<p>No. Chromium is not a COC for OU9.</p>
<p>ProUCL potential change in EPCs based on recent update to program (the current version of ProUCL at the time the risks were calculated was 4.00.04, EPA recent released version 4.1.00).</p>	<p>Approximately six weeks ago, EPA issued a new version of ProUCL, 4.1.00 that addresses an error in EPA's program. Based on the ProUCL 4.1.00 Technical Guidance, "All known software bugs found by the various users and developers of ProUCL 4.00.05 (and earlier versions) and most of the suggestions made by the users have been addressed in ProUCL 4.1.00." To ensure that any of the "software bugs" in the previous version do not adversely impact the risk calculations in the OU7 RI, UCLs for the RI will be recalculated using ProUCL 4.1.00. The updated version may or may not impact the calculation of exposure point concentrations (EPCs). The Navy will confirm whether there are any changes in the calculations in the OU7 RI.</p>	<p>Tetra Tech will evaluate the updated version and provide the information to the Navy for distribution to the team.</p>	<p>Yes. UCLs for the RI will be recalculated using ProUCL 4.1.00. The updated version may or may not impact the calculation of exposure point concentrations (EPCs). The Navy will confirm whether there are any changes in the calculations in the OU9 RI.</p>

ⁱ Taken from the OU7 Action Item List included in Appendix E.2 of the OU7 RI Report.