STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

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August 27, 2007

NAVFAC MIDLANT
9742 Maryland Ave
Norfolk Va 23511-3095
Attn: Kirk Stevens
Code EV4, bldg N-26
rm 3208

re: Draft Site 32 RI QAPP, Revision 1, Portsmouth Naval Shipyard, Kittery, Maine, June 29, 2007.

Dear Kirk:

The Maine Department of Environmental Protection has reviewed the document referenced above. The Department's comments follow.

General Comments

1. The Navy proposes collecting another round of groundwater samples for metals only. In our May 20, 2004 comment letter related to the Phase I Data Evaluation Tech Memo the MEDEP expressed its concern that many of the analyses of SVOCs and pesticides from the 1998 groundwater samples had quantitation limits (specifically sample quantitation limits) that greatly exceeded the Construction Worker Exposure RBC (Comment 2). Therefore, these results provide no useful information regarding potential to risk to the construction worker. The Navy's 6/28/04 response was,

> "The analytical requirements for the Phase II groundwater sampling will require further discussion between the Navy and regulators. The Navy will provide further rationale for groundwater analytical requirements as part of the draft DQOs for the Phase II sampling. As part of the DQO development, the Navy will continue to take into account chemicals that have non-detected results (or method detection limits) that exceed the appropriate screening levels for Site 32."

However, the Navy has not discussed the MEDEP's concern as discussed in our May 2004 letter. As stated previously, the Navy must include SVOCs and pesticides in the next round of groundwater samples at Site 32. An alternative is to calculate risk using the sample quantitation limits for the compounds in question.

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We also note that the March 2005 Final *Uniform Federal Policy for Quality Assurance Project Plans*[1] states, "SQLs must be less than the action limits for project quality objectives to be definitively met. Sample results that are reported to SQLs that are higher than the action limits cannot be used to determine whether the action limit has been exceeded."

2. In addition to the issue raised above there are three other Navy responses in the June 28, 2004 Responses to MEDEP Comments letter that state that further discussion of the comment's issue is required. These responses also state that the Navy will provide further rationale for their position as part of the draft DQOs for the Phase II Sampling. In each case there has been no further discussion nor do the draft DQOs for the Phase II Sampling include further rationale. The other 6/28/04 comments that need to be addressed are Comment 6 (PCB congener data), Comment 7 (SVOC/DRO analysis of soil around TP-SB36, and Comment 8 (additional data on vertical extent of sediment contamination). These issues must be resolved prior to finalizing the Phase II QAPP.

3. There are several phrases in the DQO section that are quite general and make it unclear how the data collected will be utilized. Specifically there are several references in the Decision Statements regarding whether a "hot spot" exists and whether it is large enough to evaluate in the FS. There is some uncertainty as to how that determination will be made. Unless the data are clearly indicating one conclusion or the other, this uncertainty is likely to require discussion among the stakeholders when data are reported.

4. It is curious that the area targeted for the greatest number of analytical samples is an area that did not contain significant detections while locations where previous investigation indicates additional characterization is needed have fewer samples planned. Is the determination of the clean fill more important than using those resources for additional characterization of other portions of the site? Also, an additional groundwater monitoring point would be warranted south of the road in this area if the goal of the determination is to drop this area from further consideration, due to the potential migration from Site 30.

Specific Comments

5. 7.1.3, p. 7-2 The shoreline stabilization work should be mentioned in the first paragraph. Also, "little changes" should be changed to "few changes" or "minor changes", depending on the intent of the sentence.

6. 7.1.5, p. 7-4, 1st bullet: "...potential risks for fresh groundwater use is no longer an exposure concern for Site 32." The Navy must discuss potential risks from the saline groundwater to construction workers via dermal contact.

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[1] 2005. Intergovernmental Data Quality Task Force. Uniform Federal Policy for Quality Assurance Project Plans. EPA-505-B-04-900A or DoD: DTIC ADA 427785. http://www.epa.gov/fedfac/pdf/ufp_qapp_v1_0305.pdf

7. 7.1.5, p. 7-5: "The majority of the contaminated sediment was also covered by the shoreline controls."

Given that contaminated sediment remains in place this statement needs further elaboration. Please discuss the ability of the shoreline controls to prevent migration of contaminated sediment to the offshore.

8. 7.1.6, p. 7-6: "It also identified the need for an additional comprehensive round of data for total and dissolved metals in groundwater..."

As a reminder, we noted in our March 1, 2004 letter regarding the Recommendations regarding Phase II of the Remedial Investigation for Site 32, Portsmouth Naval Shipyard, Kittery, Maine, January 13, 2004, that if the one round of groundwater samples proposed for Phase II happens to show substantially different results (high concentrations), more sampling or long-term monitoring may be necessary. Also see Comment 1.

9. 7.1.6, p. 7-6: "Organic compounds detected in groundwater were detected infrequently and at low concentrations..." Please see Comment 1. Also, although detections for PAHs in groundwater may be limited, there are several borings adjacent to the shoreline where benzo(a)pyrene concentrations exceed 1 mg/kg, and transport may be (or have been) occurring as particulate rather than dissolved fractions.

10. 7.1.6, p. 7-7: "...the mid- to high-tide portion of the shoreline was covered with shoreline controls."

There do not appear to be any sediment data from this portion of the shoreline. How will the Navy ensure that any potential contaminated sediments under the shoreline controls will not migrate offshore via tidal action?

11. 7.2.2, 7-8: As indicated above the relation of SVOCs in groundwater to construction worker screening levels needs to be added to the problem definition.

12. 7.2.2, 7-8: "What is the extent of soil contamination around the PCB hotspot at TP-SB14?" In MEDEP's April 14, 2004 comment letter regarding the Draft Site 32 Phase I Data Evaluation Technical Memorandum, we wrote,

> "MEDEP agrees that further selected sampling is needed as specified in the second and third bullets. In addition, the following locations of potential human health risks should be investigated by peripheral sampling: TP-SB14, TP-SB36, and TP-SB42. However, this bullet only mentions PCBs at TP-SB-14, whereas on page 4 it is recommended that the levels and distribution of benzo(a)pyrene, Aroclor-1260, dieldrin, copper, lead, manganese, mercury and nickel also be investigated. We agree with the statement on page 4 that the relatively high concentrations of these analytes need to be assessed spatially."

The Navy responded that they would "consider these analytes to determine the analytical program during the development of DQOs for the additional investigation." There is no indication in the QAPP revision that the Navy further considered these analytes for the TP-SB-14 area. Please address our April 14, 2004 comment.

13. 7.2.2, 7-8: "What is the nature and extent of LNAPL present in groundwater..." The existing dataset also does not define the extent of the impacted soil. How will the FS evaluate the potential remedial alternatives for saturated soils?

14. 7.2.3, p. 7-8: "If the data do not show a true hotspot..." How will the determination be made that the area is or is not a hotspot? If two or more locations detect arsenic in the range of 1-2,000 mg/kg, MEDEP suggests the area be considered separately. The disparity between the sample and duplicate values suggests careful noting of what fraction of the fill material is sampled will be critical.

15. 7.2.3, p. 7-8 and Table 7-3: "Determine the extent of soil contamination around the PCB..." The proposed borings must extend to at least 12 feet in order to capture the volume of impacted soil in the vicinity of TP-SB14. The original data indicate concentrations approaching the site screening level in the sample from 13-15 feet below ground surface (bgs).

16. 7.2.3, p. 7-9: The relation of SVOCs in groundwater to construction worker screening levels needs to be added to the decision statements.

17. 7.2.3, p. 7-9: "Determine the extent of clean fill area..." See general comments regarding the evaluation of an area of sufficient size to address separately. This area also likely lies downgradient of Site 30/Building 184. In previous discussion regarding the groundwater monitoring points at Site 30, Navy has indicated that potential migration of groundwater from Building 184 would be evaluated as part of Site 32. The existing well network will not address migration from Site 30.

18. 7.2.3, p. 7-9, Item 5: This item addresses groundwater only. Regardless of the presence of LNAPL, the saturated soil must be addressed in the FS to meet the requirements of a Baseline site. If LNAPL is found in TP-MW11, additional information will be needed to estimate its extent. Please note that any petroleum-saturated soil found at Site 32 must be removed. This should be added to the decision statements (Item 5 in the Decision Rules seems to address soil as well as groundwater).

19. 7.2.3, p. 7-9, Item 7: "Determine the extent of PAH concentrations greater than IRGs..." Several soil borings including TP-SB18 at the shoreline near MS-4 have elevated PAHs, and would seem to be likely sources for the PAHs in sediment. No additional characterization of the soil PAHs is considered, how will the extent be evaluated for the FS?

20. 7.2.4, p. 7-10, Bullet 2: "Dioxins/furans will not be included because these have not been detected at concentrations exceeding background levels or risk-based screening

levels." The Navy has yet to provide any discussion regarding the soil samples that were analyzed for dioxins in April 2004. In addition, as noted above in Comment 2, the necessary discussion between the Navy and MEDEP regarding dioxins/furans at Site 32 has not yet occurred. Therefore, we cannot accept the statement the dioxins/furans will not be included.

21. 7.2.4, p. 7-10: "Previous groundwater sampling at Site 32 did not show LNAPL..."

The documented extent of LNAPL may be limited by the current well network.. Based on the existing data for groundwater flow at the site, it is unclear whether the closest monitoring wells are downgradient of TP-SB36. Detection of LNAPL at the proposed monitoring well will allow the FS to anticipate collection of product .

22. 7.2.5, p. 7-11: Determining the relation of SVOCs in groundwater to construction worker screening levels needs to be added to the decision rules.

23. 7.2.5, # 2, p. 7-11, Figure 7-2 and Table 7-3: "*Determine the extent of soil contamination...*" The table indicates 9 boring locations and the figure indicates 8 locations, please clarify the number proposed. The text and table indicate that the extent of PCB impacted soils will be investigated radially from TP-SB14 to a distance of 25 or 50 feet respectively. MEDEP supports additional characterization to a distance of 50-60 feet, but is unclear on what extent must show elevated PCB for the area to be considered a hotspot. If the borings within a 25 foot radius are found to have high PCBs, consideration for a separate FS evaluation is warranted.

24. Section 7.2.5, # 5: "If not, do not evaluate remedial options..." See earlier comments regarding the need for saturated soil removal for Baseline sites.

25. Section 7.2.5, # 6 and 7, p. 7-12: Please clarify the statements, "If the area of offshore sediment...within 25 feet..." Assuming the width of the sediment in that area is near 25 feet, MEDEP interprets the decision statement to indicate that any two locations that show elevated copper or PAHs will require evaluation in the FS.

26. 7.4.3, p. 7-14, Monitoring Well Purging: Contrary to the statement in this section Table 7-2 does not provide the well tidal lag time.

27. 7.4.12, p. 7-15: "...copies will be sent...as described in Section 4.12." Section 4.12 of the Site 32 RI QAPP discusses Site Utility Clearance. Please correct this statement.

28. Section 7.4.3, Monitoring Well Purging and Groundwater Sampling, p. 7-14: The title needs to be updated to "Monitoring Well Gauging" or something similar in the final paragraph of the section. MEDEP expects that the summary RI report will include tables and figures of the elevation data from Phase 1 and 2, something not included in the Phase 1 submittal.

29. 7.6, p. 7-17: As a reminder, all data generated from the Phase II investigation must be submitted to the MEDEP in the proper Electronic Data Deliverable format. The chemical data EDD submittal should include the field parameters and groundwater elevation data. The latest EDD codes and information are available online at http://www.maine.gov/dep/rwm/egad/. In addition, the MEDEP would like to discuss with the Navy receiving historical Site 32 data in the EDD format.

30. Table 7-5, Project Schedule: This information should be included with the Final FY08 Amended Site Management Plan.

31. Table 7-6: This table indicates that 54 PCB environmental samples will be collected. According to Table 7-3 it appears that the number is closer to 27 samples. Please clarify.

Please feel free to contact me at (207) 287-8010 if you have any questions.

Sincerely,

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