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LETTER TRANSMITTING U S EPA REGION III'S RESPONSE TO NAVY'S COMMENTS ON
DRAFT BASELINE ECOLOGICAL RISK ASSESSMENT FOR SITE 9 AND SITE 10 NAB
LITTLE CREEK VA
2/8/2001
U S EPA REGION III

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103

8 February 2001

Commander, Atlantic Division
Naval Facilities Engineering Command
Environmental Quality Division, Code: 1823
1510 Gilbert Street
Norfolk, Virginia 23511-2699
Attn.: Dawn Hayes

SUBJECT: *Response to USEPA Review Comments, Draft Baseline ERA (Step 3) for Sites 9 and 10*
NAB Little Creek, Virginia Beach, Virginia

Dear Ms. Hayes:

The Navy's *Response to USEPA Review Comments, Draft Baseline ERA (Step 3) for Sites 9 and 10* has been reviewed by the Environmental Protection Agency. The following comments are offered.

1. During this review a number of statements were noted which also appeared in other recently reviewed documents prepared by CH2MHill and which resulted in comments by BTAG. In an effort to expedite this review, NOAA recommends these similar statements which generated comments in these other documents be addressed in this document. Some of these similar statements include: inhalation exposure (page 3-22); safety factors from LD50 to chronic NOAEL (page 3-24); population-individual-population (page 3-24); chemicals not detected and with no screening values dropped from COPC list because not at environmentally significant levels (page 3-25); if one concentration exceeded another by more than 50%, it was significant (page 4-36); and COPC concentrations consistent with background (page 5-43).
2. There are a number of grammatical errors in the document which need to be corrected. For example, the reader may be confused about just what an "avian mammalian receptor species" (page 3-23) is supposed to mean. Another spelling error appears to be LOAEL NOAEL (page 6-45).

3. In response to General Comment 1, section 3.2 of the BERA does not appear to "...provide a more thorough discussion and evaluation of the available ecotoxicological data for the chemicals of concern in the media retained for evaluation as a result of the screening level assessment," or provide "More thorough discussion of the screening values, their derivation, and site-specific applicability...." In fact, the minimum was done in referring to Appendix C. The use of Appendix C in the BERA is still not clearly documented in the BERA, and it is not clear how this information was used, or even if it used, to modify the COPC list from the SERA.
4. General Comment 2 appears to have been adequately addressed.
5. In response to General Comment 3, section 1.0 text changes do not appear to have addressed the essential issue of how step 3A, as defined by the Navy, fits into the ecological risk assessment guidance set forth in USEPA. 1997, *Ecological Risk Assessment Guidance for Superfund: Process for Designing And Conducting Ecological Risk Assessments*. Therefore, this clarification still needs to be added to section 1.0.
6. In response to Specific Comment 1, the revised text in both sections 2.0 and 2.2.1 do not adequately address this issue. However, text does appear in section 3.1.1, page 3-23, which does address this issue. In fact, the last sentence of the first paragraph on this page needs to change to: "This possible historical transport pathway will be the focus of the separate assessment."
7. The response to Specific Comment 2 is adequate.
8. Specific Comment 3 from the BTAG states that the comparison of mean concentrations without considering the spatial resolution and spatial distribution of screening value exceedances of current samples is inappropriate, and could underestimate risk to local populations of invertebrates, plants and fish. The response to comments states that the first bullet in Section 3.3 was modified to include consideration of spatial resolution. However, spatial resolution and spatial extent of exceedances were never considered when presenting the results of the baseline ecological risk assessment (ERA) for either Sites 9 or 10. There are several issues that need to be discussed when addressing risk to invertebrate, plant and fish populations including the spatial resolution and spatial exceedances of individual samples. In addition, using means can overlook "hot spots" where localized impacts may be significant. For example, Site 9 is six acres in size, and only six surface soil samples were collected, therefore one sample represents approximately one acre of the landfill cover. If three of these samples exceed screening values protecting soil invertebrates, then approximately 3 acres presents potential risk. The discussion in the baseline ERA needs to focus on what this means to local invertebrate populations, and as a potential food source to birds and mammals that feed on invertebrates. Comparison of a mean media concentration to a screening value without considering these issues is

inappropriate and does not consider site-specific conditions relative to contamination.

9. The response to Specific Comment 4 is not adequate. The text contained in the 6th bullet of section 3.3 does not adequately address the specific comment. In particular, the concern is whether or not the number of samples at these sites is adequate to characterize the nature and extent of chemical contamination or was intended to only characterize risk. From a statistical perspective, the argument can be made that 20 soil samples covering areas of 6 to 18 acres is not adequate to characterize the nature and extent of contamination and therefore, eliminating chemicals based on frequency of detection from an inadequate sample size is not appropriate. This issue needs to be more completely discussed such that this uncertainty is better documented in the report.
10. The responses to Specific Comments 5 and 6 are adequate.
11. The response to Specific Comment 7 will be adequate if the two phrases "...exceeded surface soil screening values..." and "...food web exposures exceeded one..." change to "...concentrations were equal to or exceeded surface soil screening values...", and "... food web exposures were equal to or exceeded one...."
12. The responses to Specific Comments 8, 9, and 10 are adequate.

If you have any questions concerning any of these comments, please call me (215) 814-5129.

Sincerely,



Mary T. Cooke
Remedial Project Manager

cc: Randy Sawyer, WNSTN
Robert Weld, VDEQ
Matt Louth, CH2M HILL