



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION II

290 BROADWAY

NEW YORK, NEW YORK 10007-1866

JUN 16 2003

Ms. Michelle DiGeambardino, Project Manager
Naval Facilities Engineering Command
10 Industrial Highway, Mail Stop 82
Lester, PA 19113-2090

Re: Draft Feasibility Study for OU-9 (Sites 6, 12, 15 and 17)

Dear Ms. DiGeambardino:

The Environmental Protection Agency (EPA), in accordance with our Federal Facility Agreement with the Navy, has reviewed the above referenced report prepared by Tetra Tech Nus, Inc. Attached are our comments on this report.

If you have any questions, please call me at (212) 637-3921.

Sincerely yours,

A handwritten signature in cursive script that reads "Jessica Mollin".

Jessica Mollin, Project Manager
Federal Facilities Section

cc: B. Marcolina, NJDEP
L. Burg, NWS Earle

Comments

Risk Characterization. The information from the risk assessment is poorly characterized within the document. In general, the document fails to provide specific risk values in the text and provides only a qualitative assessment. This abbreviated information is not helpful to the reader in understanding the magnitude of the risks and the associated risks presented in the Tables in Appendix B. The Tables in Appendix B also fail to identify contaminants of concern and associated risks and hazards.

In addition, the presentation of risks fails to identify the receptor populations where the risk range is exceeded. In the Tables (Appendix B) the chemicals of concern, and the exposure assumptions are not included in the assessment making it difficult to evaluate the significance of the exceedence of the risk range. It is recommended that the text be modified to indicate the risk concentration rather than simply stating that the risks are within the upper bounds of the risk range. It is also recommended that the Tables in Appendix B should specifically identify the exposure assumptions and chemicals of Potential Concern identified in the assessment comparable to the RAGS-Part D Tables 8 through 10.

For example, on page ES-13, it would be helpful to identify the risk associated with the chemical concentrations listed i.e., $HI = 2.3$. The current presentation fails to clearly explain the associated hazards.

RME vs. CTE. As outlined in the NCP, the decision regarding remedial action is based on the RME exposures and risk and not the CTE. The CTE provides additional information. In several sections of the reports (e.g., pg. ES-14, etc.) statements are made regarding the significance of the CTE assessment and it is recommended that these sections should clearly indicate that the decision is based on the RME.

Background. It appears that background was used as a criteria for determining whether a chemical should be maintained as a Chemical of Potential Concern. As outlined in EPA's Background Guidance, and Risk Assessment Guidance for Superfund Part A, all chemicals should be screened based on Preliminary Remediation Goals to determine whether they should be maintained in the risk assessment. If the chemical is not a Known Human Carcinogen and it passes the risk based concentration screen, then it can be removed as a Chemical of Concern. However, if it does not pass the risk based screen and it is a known human carcinogen, then it should be maintained in the risk assessment and the contribution from background discussed in the risk characterization.

The statistical procedures used to evaluate whether a chemical is associated with background are not consistent with current background document. Specifically, there are a number of statistical tests that can be used in the evaluation of background and based on the small number of background samples identified, it is possible that other statistical tests may be more appropriate. Further, Region II recommends applying the Background Guidance not the 2 X rule that is listed in the document.

The Background guidance also identifies criteria for selecting background locations based on similar types of soil, etc. and this should be discussed within the FS.

Lead. The discussion of lead concentrations should provide greater details regarding the average lead concentration found at the site and the comparison to the residential soil screening level of 400 mg/kg. The discussion should also indicate whether the samples were at the surface or subsurface and the receptors that may be potentially impacted.

Potable Water Supply. The document indicates that the groundwater is not currently a potable drinking water supply. This approach does not address the groundwater classification for the aquifer nor does it address the potential future uses of the groundwater. The text should clearly define the groundwater classification and explain what institutional controls will be used to prevent its use as a drinking water supply. The current presentation is not clear on this issue. (See pgs. ES-24 and ES-26).

Specific Comments.

Page ES-7. If any RCRA corrective actions were performed, they should be stated.

Estimate size of Site 15.

Page ES-11. Since the RI was completed in 1996 and 1998, it may be appropriate to indicate whether the changes in current guidance would significantly change the results of the previous risk assessment. A qualitative assessment would be appropriate but should address issues regarding changes in guidance i.e., dermal and background, toxicity values, and exposure assumptions that may significantly change the calculated risks and hazards.

Under Site 6, the actual cancer risks and non-cancer Hazard Indices should be stated.

Need discussion on whether there were any site risks for sediment and surface water.

Page ES-12. Need discussion on whether there were any site risks for sediment at Site 12.

Page ES-13. Need more discussion on lead detected in surface soil. What levels was it found at?

Pages ES-14 and ES-15. What is considered a significant increase in blood lead concentrations? It may be helpful to indicate that the increase in blood lead concentration associated with site exposure did not exceed the guideline of 10 µg/dl.

Page ES-20. It would be helpful to include information in this section regarding Site 12 explaining how the information from the soil excavation activities were addressed in the risk assessment.

Pages 1-4, 1-6. Delineate on the maps the boundaries of the sites.

Page 1-20. Why was the 95% UTL selected for the analysis of background and not other statistical techniques. See the Background Guidance for additional information.

Table 1-5. See previous comments regarding Background Guidance and application for samples of various sizes. It appears that a small number of samples were collected for the background analysis and it is unclear why more sophisticated analyses were performed on such a small sample size. A comparison to a risk based concentration may be more appropriate for evaluation of the significance of the chemical rather than this background analysis in the screening phase of the assessment.

Table 1-6. See previous comments for Table 1-5.

Table 1-7. See previous comments for Table 1.5.

Table 1-11. It is unclear why these contaminants were evaluated as background when they are not naturally occurring. A clear distinction is required to indicate these are potential anthropogenic exposures and that they are not site related. The basis for the representative concentration should be listed i.e., 95% UCL, mean, etc.

Page 1-42. List the site risks and associated exposure assumptions.

Page 1-43. State the results of the additional surface water and sediment samples which were collected further into the marsh.

Page 1-45. Add "**There is**" before paragraph starting with "An underground storage tank....."

Pages 1-48 to 1-51. See previous comments regarding background concentrations.

Pages 1-56 to 1-57. Present the calculated cancer risks and non-cancer Hazard Indices. Also, for lead, indicate whether the comparison values for lead are based on residential or industrial screening levels.

Need discussion on whether there were any site risks for sediment at Site 12.

Page 1-74. See previous comments regarding significance of CTE and also defining significance of increase blood lead concentrations in the IEUBK Lead Model.

Page 1-90. Why are PCBs evaluated based on background? A clear distinction in the assessment of background concentrations is necessary to separate information regarding naturally occurring and anthropogenic concentrations. The definition of anthropogenic as being not related to the site should also be considered in the presentation of the information.

Page I-95. See previous comments regarding significance of increases in blood lead concentration.