ENSAFE

EnSafe Inc. Environmental and Management Consultants

5724 Summer Trees Drive • Memphis, Tennessee 38134 • Telephone 901-372-7962 • Facsimile 901-372-2454 • www.ensafe.com

September 13, 2002

Commander
Attn: Mr. Bill Hill, Code 1851
SOUTHNAVFACENGCOM
P.O. Box 190010
North Charleston, South Carolina 29419-9010

Subject: Delivery of Report
CTO-036, Category 4

Reference: Contract # N62467-89-D-0318, CLEAN II

Dear Mr. Hill:

EnSafe Inc. is pleased to submit two copies of the Remedial Investigation Report Addendum 1 for Site 40, Bayou Grande at the Naval Air Station Pensacola in Pensacola, Florida. Responses to EPA and FDEP comments are also included. An electronic copy of the document will be emailed to you.

If you should have any questions or need any additional information regarding the document, please do not hesitate to call me.

Sincerely,
EnSafe Inc.

Allison L. Harris
Task Order Manager

Enclosure: Remedial Investigation Report Addendum 1, Site 40, NAS Pensacola

cc: Mr. Robert Rivers, ACQ23RR SOUTHNAVFACENGCOM without enclosure
EnSafe Inc. CTO 036 file without enclosure
EnSafe Inc. Knoxville file without enclosure
EnSafe Inc. Library without enclosure
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U.S. Environmental Protection Agency
Response to Technical Comments
Site 40, Bayou Grande, NAS Pensacola
RI Report Addendum 1
September 13, 2002

Summary

The document is an assessment of risk consistent with EPA guidance and methodology. As such, the risk estimates in this document may be used by risk managers to reach a decision about Site 40. However, the document has many errors in terms of methodology and presentation.

This risk assessment is based on consumption of red drum. Fishing regulations in Florida prevent capture of more than one red drum per day.

General Comments:

Risk Management Statements

Throughout the document were statements related to risk management. For example, the executive summary states that subsistence fishing is not a valid scenario for the site. Instead of stating these conclusions, the document should present the attendant uncertainties and permit the decision-makers to draw their own conclusions.

Another example is the last paragraph of the executive summary. This paragraph should be removed from the document. The document should present the risk estimates and attendant uncertainties. Stating whether the risks are acceptable or not places the Navy=s contractor in an inappropriate risk management role. The document does not need to be rewritten, but the Navy=s contractor and the decision makers at this site should be aware of this issue.

Specific Comments:

Page 8. The text at the bottom of the page states that the estimated fish ingestion rate of subsistence fishers is 39 g/day or 26 g/day * 1.5. It is not clear where the 1.5 factor arose. Perhaps this factor is based on the statement two sentences earlier that Native Americans with fishing licenses have 50-100% higher fish intake rates than other anglers. If so, why was the low end of this range chosen?

Response. Although the text states that the ingestion rate used for estimating risk to the subsistence fisherman is 19.5 g/day, the actual value used to estimate risk was 39 g/day. This value assumes that the subsistence fisherman ingests 50% more fish per day than the recreational angler. If we had assumed that 100% more fish, i.e., 52 g/day, was ingested by the subsistence fisherman and only 50%

of the fish is edible then the ingestion rate would remain 26 g/day. However, it appears that the adjustment for the edible portion of the fish was not made. Therefore, the actual ingestion rate used to estimate risk is greater than what was proposed. The text of the document will be modified to present the actual values used in the risk assessment.

Table 4. The title of this table indicates that non-carcinogenic effects are being considered whereas the column title suggests that carcinogenic effects are considered. This typo should be corrected.

Response: This correction has been made.

Page 15. The Long et al. (1997) study should not be used for a background comparison because it obtained its Abackground@ samples from the site area. However, the point that PCB contamination is endemic in coastal areas remains valid. A study of PCBs in marine sediment in another Gulf coast region could be used for comparison. Alternatively, the article, ATidal creek and salt marsh sediments in South Carolina coastal estuaries@ II. Distribution of organic contaminants@ by Sanger DM, Holland AD, Scott GI. In Arch Environ Contam Toxicol. 1999 Nov;37(4):458-71 could be used as a starting point for examination of relevant studies.

Response. Agreed. This discussion will be removed from the text of the document.

Page 15. The statement is made that the maximum concentration in forage fish that was used to calculate concentrations in trophic level 4 fish was obtained 2 miles away from the site. The document indicates this should bias the risk estimate to the high side. This is nonsense. Without a discussion of the home ranges of both the level 3 fish (prey) and the level 4 fish (predators) and a discussion of the spatial distribution of contamination in sediment, this statement cannot be supported and the discussion should be removed from the document. Instead, a single statement that the maximum detected concentration in level 3 fish was used as a health-protective surrogate for the mean should be substituted.

Response: The text will be removed from the document.

Page 17. The statement is made that different food sources of the red drum bioaccumulate chemicals at different rates than pinfish or killifish. This statement is then used to suggest that the risk estimates are biased high. There is no data supporting this statement. It is pure speculation and should either be supported or removed from

the document.

Response. This text will be removed from the document.

Appendix A, Page 1. Step 4 indicates more confusion about whether a human health or ecological risk assessment is being performed. Please see the comment about text on page 16.

Response. Attachment A has been removed. The reader is referred to the RI Report Addendum 2 for the mercury model.

Appendix A, Page 4. The factor of 0.70 in formula 1-2 and 0.25 in formula 1-3 have unknown origins. The units and origins of these factors should be presented.

Response. Attachment A has been removed. The reader is referred to the RI Report Addendum 2 for the mercury model.

The factor of 0.70 is the proportion of total mercury in crustaceans that is methylmercury. The factor of 0.25 is the proportion of total mercury in other invertebrates that is methylmercury. These values are presented in NOAA Technical Memorandum *Mercury Bioaccumulation in Finfish and Shellfish from Lavaca Bay, Texas: Descriptive Models and Annotated Bibliography* (NMFS-SEFSC-348).