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September 25, 1997

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NAS PENSACOLA
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Florida Department of Environmental Protection
ATTN: John Mitchell
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

RE: Final Focused Feasibility Study for Site 2
Contract # N62467-89-D-0318/059

Dear Mr. Mitchell:

On behalf of the Navy, EnSafe/Allen & Hoshall is pleased to submit two copies of the Focused Feasibility Study for Site 2, at Naval Air Station Pensacola, Florida. Also, a final response to comments is provided to facilitate the review process. If you should have any questions or need any additional information regarding this document, please do not hesitate to call me.

Sincerely,

EnSafe/Allen & Hoshall



Henry H. Beiro, P.G.
Task Order Manager

Enclosure

cc: Bill Hill, SOUTHNAVFACENGCOM - 2 copies
Ron Joyner, NAS Pensacola - 2 copies
Gena Townsend, USEPA - 1 copy
Tom Dillon, N O M - 1 copy
Linda Boldyreff, John C. Pace Library - 1 copy
Judeth Walker, NAS Pensacola - 1 copy
EnSafe/Allen & Hoshall File - 1 copy
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EnSafe/Allen & Hoshall Pensacola - 1 copy

**Department of Environmental Protection
Draft Focused Feasibility Study for Site 2
NAS Pensacola, Florida**

Comments of John Mitchell, June 4, 1997

COMMENT:

1. In ~~the~~ first paragraph of Section 1.2.1 (Nature **and** Extent of Contamination) on page 1-4 remove the reference to ~~exceedances~~ of background concentrations for "organic constituents, polycyclic aromatic hydrocarbons (PAHs), **and** pesticides." These **are** anthropogenic compounds which do not have background values.

Also, the last sentence of the last paragraph of ~~this~~ section states, "based on contaminant distribution, the final RI report indicates five locations where constituent concentrations exceed sediment screening values (**SSVs**)." ~~There were more than five locations which exceeded the SSVs.~~ However, there were five bioassay locations out of ten which had an HI > 10 and showed toxic effects to fish **and** to benthic macroinvertebrates.

RESPONSE:

The Navy understands that the State of Florida has no policy or procedure for the recognition of organic anthropogenic background levels. The above referenced paragraph in Section 1.2.1 has been deleted. The text has been revised to indicate that five out of 10 bioassay locations exceeded an HI of 10 and remove the above cited reference to **SSVs**.

COMMENT:

2. In Section 1.2.2 (Contaminant Fate **and** Transport) on page 1-5, the various potential sources which likely contributed to ~~the~~ sediment contamination should **also include** historic discharges from ~~the~~ entire Naval Depot industrial complex prior to the ~~installation~~ of the ~~industrial~~ waste water sewer line in 1973.

RESPONSE

The RI found no evidence of discharge of wastes from the entire depot to this site. The text cites only discharges from Buildings 71 and 72 prior to 1973, boat refueling and maintenance activities in the area, surface water runoff, and runoff containing pesticides from routine application around Site 2 area buildings.

COMMENT:

3. In the first paragraph of Section 1.3.1 (RI Assessment) on page 1-6, refers to five "hot spots" where contaminant concentrations exceed SSVs. The paragraph should indicate that these were the five bioassay stations for which toxicity was found to occur. The area of contamination which poses risks is larger than just these locations. The area of concern encompasses the locations where there was an HI > 10 as depicted on Figure 10-11 of the RI report.

RESPONSE:

These locations were reevaluated in Phase IIB sampling and verified to be exceedances with a Hazard Index > 10 (see Figure 1-2). The text has been revised to reflect this.

COMMENT:

4. In Section 1.3.2 (Baseline Risk Assessment) under the subsection Ecological Risk Assessment on page 1-8, it states that "the BRA determined five stations to have an HI above 10 and thus negative impacts represent only 3.9% of the total area under investigation at Site 2." This is incorrect. There were five bioassay stations which showed toxic effects to fish and benthic macroinvertebrates and had HIs > 10. Based on Figure 10-11 (Phase IIB HI Values for Contaminant Concentrations) of the RI report, there were more than these 5 stations which exceeded an HI of 10. The bioassays were performed at various locations at the site to better determine the level of ecological risk to base our risk management decisions. Based upon the results of the RI, apparent risk is

greatest ~~where~~ the HI exceeds 10. Therefore, the **area of focus** for the feasibility **study** is at an HI > 10 and is shown in the above mentioned figure.

RESPONSE:

The text **has been revised to reflect the above comment**. Bioassays completed during **Phase IIB indicate a toxic effect on test organisms**. The percentage of the study area **has been removed from the text because it is misleading**.

COMMENT:

5. In Section 1.3.5 (**Remedial Objectives**) on page 1-11, **the remedial objectives are based on the five hot spots**." The remedial objective is based **on the area where** the HI is greater than **10**. **This needs to be reflected in the text and in Table 1-2 of this section**. Also, Figure 1-2 should also reflect the same **area as defined in Figure 10-11 of the RI report where the HI > 10**.

RESPONSE:

The text **has been changed to indicate that the remedial objective is based on areas where the HI exceeds 10**. Figure 1-2 **encompasses the area shown on Figure 10-11 of the 12/22/96 version of the RI report**. Former Table 1-2 **has been deleted**.

COMMENT:

6. In Section 3.2.1 (No Action), under subsection **Overall Protection of Human Health and the Environment** on page 3-10, delete the last **sentence about natural capping of the hot spots through deposition from wave action**. **There is no proven evidence that this is true**. Also, due to **the length of time that the industrial outfalls were closed and the contamination continues to exist**, the **natural capping scenario seems unlikely**.

RESPONSE

The referenced sentence has been deleted.

COMMENT:

7. In Section 3.2.4 (Natural Attenuation), under ~~subsection~~ Compliance with ARARs on page 3-19, it states that "sediment would be expected to reach remedial goals with time through natural processes." ~~This section~~ needs to indicate the **estimated** amount of ~~time~~ which would be **required**. This information is **needed** to adequately make a **risk** management decision, **as well as determine** long term **costs**. Also, the amount of ~~time~~ **(24 years)** this contamination appears to have **been** entrained in the ~~sediments~~ **seems to indicate** that **natural** attenuation processes are very **slow**. Although, previous levels may have **been** much worse **and** they may have attenuated to their current levels.

RESPONSE:

In accordance with the agreement made at the July 1997 partnering meeting, the term "natural attenuation" will be replaced with "sediment monitoring." This monitoring scenario is used to document concentration and risk reduction trends. Information collected will be used to build future decisions and create a plan of action for the site.

COMMENT:

8. In Section 4.1.1 (Overall Protection of ~~Human Health and~~ the Environment), under subsection Protection of the Environment on page 4-1, ~~this~~ section needs to reflect what I have **stated** in previous comments **Nos. 4 and 5**.

RESPONSE:

The text will be revised accordingly.

Comments of Greg Brown, **May 27, 1997**

COMMENT :

1. Table 1-1 describes ~~the~~ PRGs for the proposed ~~remedial~~ alternatives. It would also be useful to list the range of ~~observed~~ sediment concentrations ~~as~~ well.

RESPONSE:

Table 1-1 has been amended as noted above.

COMMENT:

2. Removing ~~sources~~ of contaminants ~~to sediments~~ is fundamental for ~~the 'natural~~ attenuation" alternative to be feasible. ~~Industrial~~ waste discharges ~~and sources~~ of DDT and PCBs have been removed. ~~The~~ sediments, however, are ~~long-term~~ reservoirs for ~~these~~ compounds. Releases of other contaminants such as metals ~~and~~ PAHs may still be occurring via stormwater discharges. Should the **"natural attenuation"** alternative be seriously considered, the management of stormwater discharges from the **"56 sewer and industrial outfalls"** should also be addressed. Additionally, a "natural attenuation" alternative requires an adequate monitoring program to document concentration and risk reduction trends for both metals ~~and~~ persistent organic compounds.

RESPONSE:

In accordance with the agreement made at the July 1997 partnering meeting, the term "natural attenuation" will be replaced with "sediment monitoring." This monitoring scenario is used to document concentration and risk reduction trends. Information collected will be used to build future decisions and create a plan of action for the site.

COMMENT:

3. For ~~metal~~ contaminated sediments, the U.S. EPA's National Risk Management Research Laboratory recommends measuring acid volatile sulfides (**AVS**) ~~and sulfide~~ sequestered metals (**SEM**). Their research indicates that if the difference between the normal

concentrations of SEM and AVS exceeds 5, then there is a high metal toxicity probability. If the difference is much less, then metal toxicity risks may be negligible. The Navy may wish to measure these values to assess metal bioavailability to help justify their preferred alternatives. For further information on analytical methods, I suggest contacting Mr. Fred Bishop at NRMRL at (513) 569-7629.

RESPONSE:

Acid volatile sulfides (AVS), simultaneous extracted metals (SEM) and metals partitioning analysis will be included in the new long-term sediment monitoring alternative.

Comments of Gena Townsend, July 7, 1997

COMMENT:

1. A table should be added addressing the list of ARARs.

RESPONSE

Table A-1 has been added in Appendix A listing the ARARs for this site.