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NAS CECIL FIELD, FL
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LETTER REGARDING U S EPA REGION IV COMMENTS ON ECOLOGICAL RISK
ASSESSMENT FOR POTENTIAL SOURCE OF CONTAMINATION 39 RUNWAY OUTFALLS
NAS CECIL FIELD FL
7/6/2000
U S EPA REGION IV

32215-000

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY 01.03.00.0075
REGION 4



61 Forsyth Street
Atlanta, Georgia 30303-3104

July 6, 2000

4WD/FFB

Commander
Department of the Navy
SOUTHNAVFACENGCOM
Attn: Mr. Mark Davidson
Mail Code 1879
P.O. Box 190010
North Charleston, South Carolina 29406

Subject: Ecological Risk Assessment for Potential Source of Contamination 39, Runway
Outfalls, NAS Cecil Field, Jacksonville, FL

Dear Mr. Davidson:

The U.S. Environmental Protection Agency (EPA) has completed reviewing the subject document. The Ecological Risk Assessment received for PSC 39 was only a section of the Technical Memorandum which EPA assumes will be received at a later date. Our comments on the ecological risk assessment follow:

1. The screening-level ecological risk assessment should contain a section providing the reader with a summary of the environmental settings present at the site. This section should include brief summaries containing the following types of information:

- Types of contaminants directly related to site activities.
- Areal photographs (if available)
- Maps delineating all habitats at the site.
- Any site specific information available that might affect contaminant transport of contaminants off-site (for example soil/sediment types, topography features, flow rates, TOC, etc.).

It is assumed that many of these items would have been in Technical Memorandum, but because only one part was provided for review, these comments are being provided.

2. Assessment and measurement endpoints should be selected based on the contaminants of potential concern (COPCs) present at a site and the potentially complete exposure routes. The assessment endpoints presented in Section 6.2.1 may be more accurate if presented after an analysis of COPCs present at the site.

3. The assessment endpoints are too general for the refinement of COPCs stage. The assessment endpoints should include the fish community, benthic community and a feeding guild for each receptor species chosen for food-chain modeling. This will be necessary to explain what the receptors species are attempting to model and how the hazard quotients are to be interpreted.
4. There should be a detailed description of the results of the screening level risk assessment presented in the screening level risk assessment prior to refinement of COPCs. This discussion should be fairly straight forward; however it needs to be discussed prior to the refinement of COPCs section.
5. **Section 6.2.1.** A habitat map should be generated for this report that shows all habitat (both within and between the outfalls) and an estimate of the area of each habitat.
6. **Section 6.2.2, Paragraph 1 and Table 6-1.** If TRVs (other than the screening criteria) are to be utilized in the risk assessment they should be provided using primary literature references and a summary of the test the TRV was derived from. This information will be important for the uncertainty section of the risk assessment.
7. **Section 6.2.2, List of Potential Receptors.** Some discussion should be provided explaining why the receptors were selected to represent the endpoints selected for this risk assessment. There should be a direct link between the assessment and measurement endpoints and the representative receptors selected to represent them.
8. **Section 6.2.5.1** This section does not present a clear summary of the results and conclusions drawn from the screening level risk assessment. The following include some of the unclear elements of this section: (1) it is not clear if all these samples were analyzed for pesticides and PCBs - if they were that should be stated; (2) Several contaminants are included as COPCs are not discussed any further in the report (copper in surface water, cadmium in sediment, for example); it is not clear why toxicity profiles for aluminum and lead were included, but profiles for other COPCs were not; and (3) The conclusion subsection contains several statements that are not supported by the data presented in the report (for example, "potential risks at outfall No.1 are limited to PAHs and lead).
9. The ERM quotients method is a suggestion rather than a requirement for refining COPCs. The method can be found on the web at "response.restoration.noaa.gov/cpr/sediment/SOGs.html" Another method for predicting potential toxicity of PAH mixtures in sediments is found in Swartz (1999). These methods can be used to enhance the uncertainties discussion for the toxicity assessment of direct toxicity.
10. **Section 6.2.3, Exposure Estimate and Risk Calculation.** The lipid content of the fish is assumed to be 1.3 percent after a reference for largemouth bass. Average lipid contents in fish depend on the species. They can range between 0.75 and 4.5 percent in EPA=s STORET data base. We have a request in to the STORET hotline for a average lipid content for *Gambusia affinis*. Unless other data is available, I recommend using an assumed value of 3 percent as a default lipid content. EPA guidance on bioaccumulation

and the current national methodology uses a value of 3 percent for human health assessments.

11. *Section 7.0, Preliminary Conclusions and Recommendations.* The conclusions should describe the percentage of the total ditch area or length, not proposed for remediation, that may be presenting potential risk to the benthic community due to the PAHs and metals.
12. *Section 7.0, Preliminary Conclusions and Recommendations, Page 7-2.* The Preliminary Conclusions and Recommendations proposes excavation of the first 200 feet downstream of the outfall to reduce risks from Aroclors. A concentration of 1,000 ug/kg was proposed as a preliminary remedial goal option (RGO). The ecological risk assessment for Outfall 11 indicated that the concentrations of Aroclors exceeded ERMs and PELs, and that it probably presented a potential risk to the benthic community. No protective level or RGO was discussed. The document must explain how the proposed remedy is protective of ecological resources and provide a basis for the specific extent of remedy.

Thank you for the opportunity to review this early draft of the PSC 39 Technical Memorandum. If you have any questions please contact me at 404/562-8539 or vaughn-wright.debbie@epa.gov.

Sincerely,



Deborah A. Vaughn-Wright
Remedial Project Manager

cc: Mike Deliz, FDEP
Scott Glass, SOUTHDIV, Mail Code 18B12
Mark Speranza, TTNUS