



U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
 National Ocean Service
 Office of Ocean Resources Conservation and Assessment
 Hazardous Materials Response and Assessment Division
 Coastal Resources Coordination Branch

c/o USEPA Waste Division (OHA)
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NAS PENSACOLA

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commanding Officer
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 PO Box 190010
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Attention: Mr. Bill Hill

Dear Mr. Hill:

Review of the subject document for the Naval Air Station Pensacola, Escambia County, Pensacola, Florida was conducted by technical representatives of the Natural Resource Trustee for the National Oceanic and Atmospheric Administration (NOAA), U.S. Department of Commerce. The following comments are offered for your consideration.

Documents Reviewed:

1. *Draft Final Remedial Investigation/Feasibility Study Work Plan and Draft RI/FS Sampling and Analysis Plan for Sites 10 and 42 Bayou Grande and Pensacola Bay, NAS Pensacola, Pensacola, Florida.*

Comments:

The National Oceanic and Atmospheric Administration (NOAA) is authorized under the provisions of Section 107 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and Subpart G of the National Contingency Plan (NCP) to protect natural resources under its jurisdiction against the injurious effects of hazardous substances. These comments are provided so that remediation decisions made will be protective of trust resources that are threatened or adversely affected by this site, or could be affected in the future.

It was stated that Phase IIB would be conducted based on a comparison of Phase IIA data to benchmark concentrations (pg 55). For sediment, the WP discussed sediment screening values developed by the EPA and the State of Florida, but did not provide references or actual concentrations. It would be helpful to compare the proposed benchmark concentrations to ERL screening guidelines. NOAA generally recommends the ERL concentrations for screening contaminants of concern. If contaminants do not have benchmark concentrations, the WP stated that effects levels may be determined using sediment quality criteria developed by the EPA using equilibrium partitioning methods. These methods predict concentrations of the contaminant in surface water based on sediment concentrations and equilibrium with the overlying surface water, and thus only represent exposure via contact with surface water not via direct exposure to sediment or ingestion of sediment. Comparison to ERL concentrations would provide a more protective



screening method than comparison to concentrations derived from equilibrium partitioning methods.

On page 54 of the WP, it was stated that one of the objectives of the reference sampling is to determine whether constituents in the surface water or sediment have resulted from man-induced site-specific impacts or occur throughout the area based on natural influences. It was stated that this determination would be made by comparing the area of concern in the bay and bayou to the reference area. To determine whether contamination surrounding the site is the result of site-related activities, the study design would have to include a careful fate and transport analysis, which is not part of the proposed study. A simple comparison of concentrations in relation to nearby reference area, as proposed, is not adequate for determining the impact of NAS Pensacola on adjacent shoreline areas. Another objective of this study is to evaluate hazards posed by contaminated sediments, which is a separate issue from determining where the contaminants originated. Comparison to a reference area as a determining criteria for eliminating a contaminant from further study is not appropriate for meeting the objective of evaluating ecological hazards at the site. If the goal is to establish the risk posed by contaminants, then comparison to screening guidelines should be conducted. Any contaminant found at a concentration above a selected screening guideline (ERLs are recommended in this case) should be retained for further consideration in later phases of the study.

On page 56 of the WP, it was stated that mathematical models such as the Thermodynamic Bioaccumulation Potential model developed by the USACE would be used with the available chemical data to estimate the bioaccumulation of certain contaminants whenever possible, rather than undertaking additional investigation. If the results indicate that contaminants could be impacting organisms higher on the food chain, then additional studies would be conducted as part of Phase IIA or Phase III. The Work Plan presented very little information about the models, except to state that they incorporate variables such as contaminants and their chemical properties, and physical and chemical characteristics of the surrounding environment to predict contaminant bioaccumulation in the food chain. It would be helpful to include more information about these models and how the results would be interpreted. The reliability of the model results will depend upon availability and acceptability of data for input parameters (e.g., physical and chemical characteristics of surrounding environment), and the sensitivity of the model to these parameters. Interpretation of the results should include a margin of error to account for the sensitivity of the model used.

The selection of shoreline sediment sampling locations appears to have been carefully conducted and provides good coverage of areas that may have received contaminants from the site. However, there are additional data that could be helpful to use as part of Phase I. Extensive sediment sampling was conducted in Bayou Grande by NOAA as part of their National Status and Trends Program. These data may provide additional information on contamination in sediments surrounding the site that could help to target areas of concern in which sampling could be focused in Phase IIA. To date, it appears that sediment sampling has been conducted in Bayou Grande in three general areas: 1) offshore from Site 1, along the northern shore of NAS Pensacola, 2) in Buddy's Bayou downgradient from Sites 30 and 11, and 3) at Site 2, an area of shoreline that contains numerous stormwater outfalls located on the southeastern shore of NAS Pensacola. It does not appear that data have been collected along other areas of shoreline at the site, particularly on the eastern shore. NOAA may have collected data in these areas. If so, this information would be helpful to ensure that the most appropriate TAs have been proposed for Phase IIA sampling. The data are available from Ed Long at NOAA (206-526-6338).

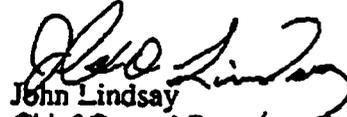
According to Figure 4-2, sediment in Assessment Zones 5 and 7 consists primarily of sands with little or no fines, indicating that contaminants are not likely to be deposited in those areas. In addition, only one waste site is located in A2 7. A substantial number of randomly-chosen sediment samples are proposed for those areas that may not be necessary. It may be desirable to sample only locations in AZs 5 and 7 that are in the direct vicinity of transport pathways from on-site source area., and redirect the effort saved into the ecological & assessment.

The SAP stated that species chosen to represent assessment endpoints were white shrimp, great blue heron and the osprey. However, the initial measurement endpoints only included toxicity tests using amphipods, mysid shrimp, and minnows. The SAP should indicate the measurement endpoints that would be used to assess the selected representative species (would the bioaccumulation modeling be used to assess risk to the bird species?). If contaminants that bioaccumulate are found in sediment at concentrations of concern during Phase IIA (PCBs, PAHs, mercury), then measurement endpoints for these pathways should be included as part of the ecological risk assessment. An additional concern is that no fish species of concern to NOAA were chosen. Some important species that might be considered in the ERA are the Gulf sturgeon (being considered for Federal threatened status); the salt marsh topminnow or alligator gar (both are considered Special Species of Concern by the State of Florida); and menhaden or striped mullet (both the two most important target species of Pensacola Bay fisheries).

The amphipod *A. abdita* is not the most sensitive of amphipods, although it is indigenous to the area. *Leptocheirus plumulosus* is a more sensitive amphipod species that is found as far south as northern Florida. Using *L. plumulosus* is recommended if the environment in Pensacola Bay is similar to the environment in which it is found in northern Florida. With either species, grain size controls are recommended because the amphipods dwell in fine-grained sediment, whereas some of the samples collected from the site are likely to be coarse-grained, sandy sediments.

Thank you for providing NOAA the opportunity to comment on this site, and for keeping me apprised of ongoing activities. I or Melissa Waters will be happy to discuss any questions or comments pertaining to this review that you may have. Our telephone number is (404) 347-5231.

Sincerely,


John Lindsay
Chief Coastal Resource Coordinator

cc: Allison Humpries, Remedial Project Manager, EPA