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**ecology and environment, inc.**

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International Specialists in the Environment

February 26, 1991

Commanding Officer  
Attn: (Code 18214)  
Southern Division  
Naval Facilities Engineering Command  
2155 Eagle Drive, P.O. Box 10068  
Charleston, SC 29411-0068

**RE: Proposed Approach for Phase I Sampling at Sites 25 and 27, Engineering Services to Conduct Soil and Groundwater Contamination Investigations at Naval Air Station (NAS) Pensacola, Florida, Contract N62467-88-C-0200.**

Dear Sir:

The purpose of this letter is to provide a summary of Ecology and Environment, Inc.'s, (E & E's) proposed approach for conducting the Phase I sampling at NAS Pensacola sites 25 and 27 (Group G). This proposed approach is in accordance with verbal discussions between E & E and Southern Division at a meeting on January 28, 1991 and verbal discussions between E & E, Southern Division and the Florida Department of Environmental Regulation at a meeting on January 29, 1991. Both meetings were held in Pensacola, Florida.

Although this approach is a variance from that specified in the Group G investigation work plan, E & E recommends the new approach because of higher-than-background radiation levels detected in the area of these two sites during the Phase I fieldwork for site groups A through E. As a result of these findings, there is a likelihood that some portion of the sediment, soil and/or groundwater samples to be collected at sites 25 and 27 will exceed radiation levels which can be accepted by E & E's Analytical Services Center (ASC) laboratory.

At sites 25 and 27, radium is the primary contaminant of concern. During the Phase I sampling task, E & E will field screen all the sediment, soil, and groundwater samples for radiation with a sodium iodide probe. Samples that exceed twice the average background radiation will not be sent to E & E's ASC for chemical analyses since the ASC does not accept radioactive samples. Therefore, these samples will be sent to a mixed-waste subcontract laboratory (Controls for Environmental Protection [CEP]) in Santa Fe, New Mexico. Given that the CEP can not perform the planned analytical screening methods, selected radioactive soil samples will be analyzed by CEP for TCL volatile organic compounds (VOCs), TCL acid/base-neutral extractable organic compounds, TCL pesticides and PCBs, TCL metals, radium-226, and pH. E & E will survey all the samples collected from sites 25 and 27 and select the soil samples to be analyzed for these parameters based on OVA headspace readings or other field observations (e.g., oily or stained soil). All radioactive soil samples

ENCLOSURE 1

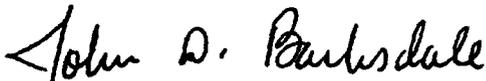
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having 'headspace readings exceeding 500 parts per million (ppm) above background will be selected for TCL analysis. If none of the radioactive soil samples exceed 500 ppm, five radioactive samples from each site having the highest headspace readings or any radioactive samples with visual signs of contamination will be selected for TCL analysis. The headspace method is recommended for sample selection because VOCs are the other suspected contaminants at these sites. The soil samples will also be screened for the presence of methane. Soil samples exhibiting high OVA headspace readings due only to methane will not be selected for TCL analysis. Although the soil samples are the most likely samples on-site to be radioactive, any sediment or groundwater samples found to be radioactive will also be sent to CEP and analyzed for the above-mentioned parameters. All non-radioactive samples will be sent to the ASC for analytical screening and to CEP for radiometric analysis as specified in the Group G work plan. However, in order to achieve the most accurate radiometric results and to be consistent with the radioactive samples, E 6 E recommends that all non-radioactive sediment and soil samples sent to CEP should be analyzed for radium-226 instead of gross alpha.

Given the two suspected contaminants--radium-226 and VOCs--at sites 25 and 27, this proposed approach will still provide sufficient information to meet the objectives of the Phase I investigation. If you have any questions or comments concerning this approach or other matters pertaining to the project, please do not hesitate to call me at (904) 435-8925 or Gerry Gallagher at (904) 877-1978.

Sincerely

ECOLOGY AND ENVIRONMENT, INC.



John D. Barksdale, P.G.  
Program Manager

JDB/mv/385

cc: J. Wilcox; E 6 E--Buffalo/Project File UH6000  
C. Gallagher; E 6 E--Tallahassee/Project File  
C. Tronolone; E & E--Buffalo  
B. Caldwell; E 6 E--Pensacola