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FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION REVIEW OF DRAFT ACTION
MEMORANDUM ADDENDUM FOR OPERABLE UNIT 10 (OU 10) SITE 21 WITH UNIVERSITY
OF FLORIDA COMMENTS ATTACHED NAS CECIL FIELD FL
8/15/2002
FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION



Department of Environmental Protection

Jeb Bush
Governor

Twin Towers Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

David B. Struhs
Secretary

August 15, 2002

Commanding Officer
Mr. Mark Davidson, Code ES339
SOUTHNAVFACENGCOM
Post Office Box 190010
North Charleston, SC 29419-9010

RE: Draft Action Memorandum Addendum for Operable Unit 10, Site 21 - Golf Course Maintenance Area, Naval Air Station Cecil Field, Florida.

Dear Mr. Davidson:

I have completed my review of the Draft Action Memorandum Addendum for Operable Unit 10, Site 21 - Golf Course Maintenance Area, Naval Air Station Cecil Field, dated May 2002 (received May 13, 2002), prepared and submitted by Tetra Tech NUS, Inc. The Department forwarded the document to the Department's contracted risk assessors with the University of Florida's Center for Environmental & Human Toxicology so that they may verify the statistical treatment given to environmental data was correctly applied and calculated. The Department's risk assessors were unable to conduct the review because critical information in the report was confusing or incomplete.

I have attached a letter from the risk assessors with the information required that is necessary for them to verify Tetra Tech NUS' risk calculations. As the statistical approach to remediating Site 21 to unrestricted use cannot be verified at this time, the work specified in the dig and haul work plan cannot be guaranteed to result in Department concurrence that the site has been remediated to levels protective for unrestricted use. Please resolve the comments and informational requests in the attached letter so the Department may evaluate the risk analyses performed and determine if remedial actions have resulted in sufficiently reduced risk at the site.

If you have any concerns regarding this letter, please contact me at (850)921-9991.

"Protect, Conserve and Manage Florida's Environment and Natural Resources"



AUG 13 2002

Center for Environmental & Human Toxicology

TECHNICAL REVIEW SECTION

P.O. Box 110885
Gainesville, Florida 32611-0885
Tel.: (352) 392-4700, ext. 5500
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August 12, 2002

Ligia Mora-Applegate
Bureau of Waste Cleanup
Florida Department of Environmental Protection
Room 471A, Twin Towers Office Building
2600 Blair Stone Rd.
Tallahassee, FL 32399

Dear Ms. Mora-Applegate:

We have examined the May 2002 *Draft Action Memorandum Addendum for Operable Unit 10, Site 21 – Golf Course Maintenance Area, Naval Air Station Cecil Field, Jacksonville, Florida*. This site covers an approximate area of 1.5 acres adjacent to a golf course. Previous investigations have documented the presence in soils of volatile organic compounds, semi volatile organic compounds, pesticides, and inorganics, and remedial actions have been conducted at the site to achieve industrial soil cleanup goals for these contaminants. This memorandum describes proposed additional remedial action to make the site suitable for residential land use.

We are unable to conduct the review of this memorandum you requested because critical information is confusing or incomplete. Specifically, we need additional information on the following aspects:

1. Presentation of soil concentration data

- a) The number of samples (n) shown in Table B-1 do not match the number of samples (symbols) depicted in Figure 3-1. For example, Table B-1 lists arsenic concentrations for 18, 16, 18, 58, and 18 samples for units 1, 2, 3, 4, and 5 respectively. However, Figure 3-1 shows 14, 17, 10, 21, and 15 soil sampling locations (surface and subsurface) for the same exposure units. Figures and tables should be consistent in their presentation of the data, or the basis for differences should be explained in the text.
- b) The sample statistics for Unit 3 shown in Table B-1 do not correspond to the data presented. Values such as the maximum and minimum concentration of contaminants found at the unit, as well as the sample size are clearly not derived from the data presented. The sample statistics for the other Units should be re-checked as well.
- c) Some of the values presented as half-detection limits are extraordinarily high, up to three orders of magnitude higher than measured concentrations of the same contaminant in other samples. We need to confirm whether these values are correct. If the detection limits are in fact that high for these samples, they are of no value in assessing the extent of contamination present at those locations.

2. Calculation of the 95% UCL

- a) We are unable to confirm the 95% UCL on the mean values that were calculated in the memorandum. Information is needed regarding the method used to calculate the 95% UCL value, methods and criteria used to determine the distribution of the sample data (e.g., normal, lognormal), etc.

- b) It is not clear if subsurface and surface samples were pooled together to calculate exposure concentrations. Normally, justification is required if samples from different soil horizons are combined for estimating exposure point concentrations.

With the information requested above, we should be able to complete our formal review of this document.

Sincerely,



Hugo G. Ochoa, D.V.M., Ph.D.



Stephen M. Roberts, Ph.D.