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NAS CECIL FIELD, FL
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LETTER REGARDING U S EPA REGION IV REPORT OF OVERSIGHT OF ECOLOGICAL RISK ASSESSMENT FIELD ACTIVITIES AT OPERABLE UNIT 5 (OU 5) SITE 15 BLUE 10 ORDNANCE DISPOSAL AREA NAS CECIL FIELD FL
7/2/2001
U S EPA REGION IV

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4

61 Forsyth Street
Atlanta, Georgia 30303-3104

July 2, 2001

4WD-OTS

MEMORANDUM

SUBJECT: Risk Review Comments on Oversight Activities,
Ecological Risk Assessment of Site 15
NAS Cecil Field
Jacksonville, FL

FROM: Ted W. Simon, PhD, DABT
Toxicologist
Office of Technical Services

TO: Debbie Vaughn-Wright
RPM, FFB

CC: Elmer W. Akin,
Chief, OTS

The purpose of this memo is to provide a report of my oversight of the ecological risk assessment field activities at Site 15. I attended the first day of sampling on 19 June 2001. Please feel free to share this memo as you wish.

My observations indicated that the sampling was performed as described in the workplan with attention to detail and thoroughness. Although I have not seen the resulting data, the procedures used were certainly rigorous enough to support a baseline ecological risk assessment and a remedial decision.

Personnel

The personnel from TetraTech NUS and TetraTech EMI participating in the sampling were:

- Michael Whitten - Biologist, Field Operations Leader
- Dana Lingle - Ecologist, XRF operator
- Alan Pate - Engineer, Biotic sampling
- Lane Middleton - Biologist, Biotic sampling
- Wade Davidson - Soil Biodiversity Specialist, UF Dept. of Entomology and Nematology

Abiotic Samples

Abiotic soil samples consisting of the duff layer and the top three inches of soil were prepared by compositing 5 shovel fulls in a stainless steel bowl. The five shovel fulls were taken one each from the four corners of the plot and one from the center. XRF readings were taken from the bowl.

Five or six separate soil aliquots were taken from composited soil at each location. At some locations, separate aliquots were separated for lead and PAH analysis. At other locations, the same single aliquot would be used for both lead and PAH analysis. Additional separate aliquots were archived for possible future lead analysis. These five aliquots would be used for:

- Lead and PAH analysis
- Total organic carbon
- Cation Exchange Capacity
- Grain size
- Toxicity testing

Decontamination procedures

Before proceeding to a new sample plot, the shovel, stainless steel bowl and compositing stainless steel spoon were decontaminated using 1) liquinox in deionized water; 2) deionized water rinse; 3) 70% alcohol rinse; and 4) a second deionized water rinse. This is a standard protocol.

Biotic Samples

Invertebrates were obtained from an area of 150 square feet (10'x15'). The top layer was dry pine straw and leaves. This top layer was raked up and sifted through a hardware cloth screen into a plastic tub. Next the duff layer, consisting of decomposing organic matter was sifted in a similar fashion. As the duff layer was pulled up, any visible invertebrates were collected. Flying insects were not obtained as it could not be determined whether they were from the quadrat under study or elsewhere.

The mineral soil at site 15 is greyish-white. Some mineral soil was also sifted to obtain invertebrates. When mineral soil was visible over the entire 150 square foot area and the overlying duff had been thoroughly searched, collection ceased.

Wade Davidson worked at the site for four days and returned to identify invertebrates. Generally, invertebrates could be classified as spiders, centipedes, beetles, beetle larvae, roaches or earthworms. Mr. Davidson indicated it would be difficult to classify the invertebrates to the genus level. He indicated a specialist in a particular order would be needed to classify to the genus level. For example, a coleoptera specialist would be need to classify beetles or a dipteran expert would be needed to classify flies. Mr. Davidson also indicated that larval forms would be especially difficult to identify.

Please let me know if you need further help.

T.W. Simon/tws:4WD-OTS:28642/07/21/01/A:\DISK11\JUL01/CF_15_ECO.WPD