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NAS WHITING FIELD
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LETTER REGARDING U S EPA REGION IV COMMENTS ON SITES 9-18 DRAFT RISK
ASSESSMENT RE-EVALUATION OF SOILS NAS WHITING FIELD FL

3/28/2005

U S EPA REGION IV



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

March 28, 2005

4WD-FFB

Commanding Officer
ATTN Code ES31 **Linda Martin**
Naval Facilities Engineering Command Southern Division
P.O. Box 190010
North Charleston SC 29419-9010

SUBJECT: NAS Whiting Field, Florida
EPA ID# FL2170023244

Dear Ms. Martin:

The United States Environmental Protection Agency (EPA) has received and reviewed the following document:

- **Draft Risk Assessment Re-evaluation of Soils for Sites 9, 10, 11, 12, 13, 14, 15, 16, 17, and 18 for NAS Whiting Field, Milton, FL, October 2004** (Tetra Tech NUS, Inc.).

This document was reviewed by Ted Simon, Ph.D., in the EPA Region 4, Office of Technical Services. Enclosed is the memorandum prepared by Ted Simon based on his review. If you should have any questions, please contact me at (404) 562-8555.

Sincerely,

A handwritten signature in black ink that reads "Craig A. Benedikt".

Craig A. Benedikt
Senior Remedial Project Manager
Federal Facilities Branch

Enclosure

cc: James Cason, FDEP

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, REGION 4
61 FORSYTH STREET, SW
ATLANTA, GA 30303**

MEMORANDUM

SUBJ: Risk Review Comments
Re-evaluation of Soils at Sites 9, 10, 11 12, 13, 14, 15, 16, 17 and 18
NAS Whiting Field,
Milton, FL

TO: Craig A. Benedikt, RPM
FFB

FROM: Ted Simon, Ph.D., DABT
Toxicologist, SRTSB

Per your request, I have reviewed the subject document. Generally, the document was well written. I discuss specifics below. Please feel free to share these comments.

SUMMARY

I have prepared a table of the various soil sites and their current conditions so that this information is easily seen and grasped. This table follows:

Site 9	A 2 acre waste fuel disposal pit, currently covered with 24" soil with grass cover. The site is not being used presently.	Indeterminate, but very low due to the soil cap
Site 10	A 4 acre open disposal area adjacent to Site 9, currently cover with 24" of soil with grass cover, Unused at this time.	Indeterminate, but very low due to the soil cap
Site 11	A 3 acre area composed of an old borrow pit and an open disposal area. Unused at this time.	Residential: 3E-06, HI < 1 Industrial: < 1E-06, HI < 1
Site 12	A 0.1 acre area used for sludge disposal. Unused at this time and densely vegetated.	Residential: < 1E-06 Industrial: < 1E-06
Site 13	A 4 acre sanitary landfill, closed and covered in 1984. Unused with exposed soil and sparse vegetation.	Indeterminate but very low because no COPCs were identified for the site.
Site 14	A 3 acre sanitary landfill closed in 1979. Unused with some exposed soil.	Indeterminate but very low because no COPCs were identified for the site.
Site 15	A 21 acre operational landfill at which operation ceased in 1979. Unused with sparse vegetation.	Residential: 4E-06 (subsurface) Industrial: 1E-06 (subsurface)
Site 16	A 12 acre prior waste disposal area, closed in 1965. Unused with good vegetative cover.	Residential: 5E-06 Industrial: 1E-06
Site 17	A 4 acre former air crash training/fire training area, currently covered with 24" of soil with grass cover..	Indeterminate, but very low due to the soil cap
Site 18	A 5 acre former fire training area, currently covered with 24" of soil with grass cover.	Indeterminate, but very low due to the soil cap

As can be easily seen from the table, the sites all have very low risks. The document made this clear; however, inclusion of a table like the one above would have been helpful. Hence, I have put it in this memo. Per your instructions, no evaluation of ecological risk assessment or migration to groundwater was performed.

SPECIFIC COMMENTS ON THE RISK ASSESSMENT METHODOLOGY

FDEP Apportionment Procedure

Recently, FDEP has introduced a method for determining cleanup levels based on apportionment of risk by individual chemicals. I recently received an explanation of apportionment by FDEP personnel. I found it close to impossible to understand the method. In my opinion, it is an arithmetic shell game that obfuscates consideration of actual risks and renders the results of a risk assessment and the associated cleanup goals unclear and difficult to fathom or explain to stakeholders.

That said, I am in agreement with the underlying philosophy of considering aggregate risk of multiple chemicals. However, this consideration is not necessarily a strictly quantitative exercise. Knowledge of the toxicology of the various chemicals must be considered to address the issue of risk from multiple chemical in an adequate fashion. In my opinion, the overdependence on the arithmetic exercise of apportionment in lieu of actual consideration of the potential of interactive toxic effects of the chemicals present is wrong-headed.

Background Evaluation

I realize that the inclusion of background data would have rendered this document very large; nonetheless, it was difficult to evaluate the background comparison without the data. In addition, the probability plots shown in appendix A would have been better performed by putting the expected normal value or Z-score on the X-axis and concentration on the y-axis. Log transformation should also be used. For example, figure A-11-12 is useless and would have been much more clear with log-transformed concentration data.

Adult Lead Model

The text describing the model suggests that the receptor is the fetus of a pregnant worker. Without additional explanation, this suggests that the indirect receptor is a pregnant woman. Not so! The receptor is a woman of child-bearing age. Lead is sequestered in her bones and may be released into her circulation at a future time when she does become pregnant. The results of the risk assessment are not incorrect, but the text should be clarified. This is not a major issue.

Please let me know if you need further help.