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Department of Environmental Protection

Lawton Chiles
Governor

Twin Towers Building
9800 Mail Stone Road
Tallahassee, Florida 32399-2400

Virginia B. Wetherell
Secretary

July 12, 1994

Mr. Bill Hill
Code 1851
Southern Division
NAVFACENGCOM
P.O. Box 190010
2155 Eagle Drive
North Charleston, SC 29419-9010

Dear Mr. Hill:

Department personnel have completed the technical review of the Technical Memorandum, Tier I Team, Category V Sites, NAS Pensacola. I have enclosed a memorandum addressed to me from Mr. David M. Clowes. The concerns detailed in Mr. Clowes' memorandum need to be adequately addressed before we can consider approval of the referenced document.

If I can be of any further assistance with this matter, please contact me at 904/488-3935.

Sincerely,

Eric S. Nuzie
Federal Facilities Coordinator

ESN/st

Enclosure

cc: David Clowes
John Mitchell
Tom Moody
Ron Joyner
Allison Drew
Satish Kastury

Florida Department of
Environmental Protection

Memorandum

TO: Eric S. Nuzie, Federal Facilities Coordinator
Bureau of Waste Cleanup

THROUGH: James J. Crane, P.G. Administrator
Technical Review Section JJC

Tim J. Bahr, Professional Geologist II
Technical Review Section

FROM: David M. Clowes, Remedial Project Manager
Technical Review Section

DATE: July 7, 1994

SUBJECT: Technical Memorandum for Tier I Team (Category V Sites 9, 29 and 34), Naval Air Station Pensacola.

I have reviewed the above stated document dated March 16, 1994 (received March 18, 1994) submitted for this site. The review of this document has been postponed since May, in order to discuss the issue of quantitation levels (see General Comment No. 1). This issue was resolved at the meeting of June 27 to 29, 1994.

The following comments should be addressed before the document is considered final:

General Comments:

1. The quantitation limits used for groundwater sample analysis are many times above Florida Primary, Secondary and "free from" Water Quality Standards (Chapters 17-520 and 17-550, F.A.C). Contract Lab Protocol (CLP) should be adjusted so the quantitation limits are at or below State standards. It is not acceptable due to the presence of a high GC volatile peak from one sample to automatically dilute subsequent samples (such as 34GGM53), and thus, raise the quantitation limits unnecessarily. If a sample was diluted, then it is considered heavily contaminated (such as 34GR01 & 34GR02), and the results from the areas not masked by the high peak should be provided, if possible. Note, it is especially important to conform to these standards because these sites may only be sampled once in order to "close them out" before BRAC construction. Therefore, all groundwater samples analyzed using quantitation limits above State standards should be resampled unless they showed significant contamination. However, to avoid reanalyzing every sample, samples do not need to be reanalyzed if the samples were not diluted before analysis, estimated values can be provided, and if significant soil contamination is not present. In the future, the reasoning behind sample dilution should be explained to avoid

confusion and facilitate document review. As agreed in the meeting (6/27-6/29), screening data (predilution) will be provided. Also, assessments phases beyond screening will use quantitation limit analyses at or below State Water Quality standards.

2. As discussed in the meeting, to expedite document review, I recommended that soil and groundwater contamination above Federal and State standards/guidelines be graphically represented as well as documented in the text. Separate figures for soil and groundwater are preferable to composite figures. If a certain contaminant is widespread, then an additional figure, with contours illustrating concentrations levels, would be useful. Proposed soil and groundwater sample locations should be plotted together on another figure.

3. The term "background standard" is inappropriate. Standards are promulgated Federal or State contaminant levels. Thus, background level should replace all references to "background standard".

4. Site locations should be plotted on figures.

5. The non detection of a chemical should be denoted as "ND" and not solely as a dash.

6. Note, FDEP's Memorandum dated February 14, 1994, concerning Florida's Soil Cleanup Goals (CG) does not include all chemicals. Subsequent versions will be more comprehensive.

Site Specific Comments:

site 9:

1. Additional soil samples at 09GR02 are needed to delineate PAH and lead contamination.

2. With low PAH levels around 09GR06 it is unnecessary for additional sampling around this site.

3. Monitoring well 09GR02 should be resampled due to the presence of lead above the State Standard. Soil is contaminated with carcinogenic PAHs at 09GR02, and other surrounding wells do not have PAH soil contamination or have as high levels of groundwater lead contamination. Thus, the justification of considering the levels as similar to background is not reasonable.

4. It is recommended that a permanent well at 09GR02 be installed for subsequent sampling; however, if BRAC construction inhibits this then a temporary well needs to be installed and abandoned after each sampling event.

5. Why is the quantitation limit elevated (1200 ug/kg) for volatiles in soil sample 09S0101? There is not a documented reason for dilution of this sample, such as the high concentration of volatiles, to explain the increased quantitation level. If these undocumented volatiles are tentatively identified compounds (TIC), these compounds should be identified (if possible) and concentration explained. Additionally, if there are not any TICs in this sample, then the sample should be recollected and reanalyzed using lower quantitation limits to confirm that volatile contaminants are not present.

6. The Florida Secondary Drinking Water Standard (Chapter 17-550, F.A.C.) for manganese is 50 ppb, not 500 ppb as stated on page 16 and 28. Thus, the amount detected (up to 693 ppb) is above the State standard.

7. The CG for Manganese, using a Hazard Index of 1 should be based on a child not an aggregate resident. Thus, the CG should be 368 mg/kg, not 2,150 mg/kg as stated on page 15.

Site 29:

1. Due to the presence of soil contamination at 29GR05, four additional soil borings should be collected around this well, in similar fashion as proposed for 29GR01.

2. Monitoring wells 29GR01 and 29GR05 need to be resampled to confirm Dieldrin contamination.

3. The location of known and suspect leaks should be labeled on all figures.

Site 34:

1. If the affect of pumping from the pits lowers groundwater, then the pits must be permeable. Thus, there is a good probability that the pits leak solvents into the groundwater when the pumps are not in use. Therefore, it is crucial that the assessment of this possible source, and abatement if leaking, commence before further assessment.

2. The amounts of naphthalene (170 ug/kg) and 2-methylnaphthalene (460 ug/kg) in soil sample 34S0109 are substantially above the Florida CGs (based on leachability) of 13.3 ug/kg for total naphthalene. Thus, proposed soil samples should be analyzed for PAHs as well as lead.

3. Two additional soil borings should be collected. One collected from the west side of the concrete lined trench, midway between Building 3557 and well 34GR02, and another adjacent to the tank that is next to Building 3557.

4. The proposed monitoring well should be moved from 150 west of 34GR02 to the north side of the concrete lined trench, directly adjacent to the trench.

5. The analytical quantitation levels used for groundwater sample 34GM53 are unacceptable. These levels are substantially elevated above State Standards without justification (see General Comment No. 1). Since this well is downgradient from monitoring wells 34GR01 and 34GR02 containing elevated levels of naphthalene and 2-methylnaphthalene, and 45,000 gallons of solvents and detergents were released from the area of these two wells, well 34GM53 needs to be resampled with lower quantitation levels especially for volatiles. Depending on the levels from the resampling, additional downgradient monitoring wells may be necessary to delineate the horizontal and vertical extent of solvent and petroleum contamination in groundwater.

6. Concurrent with the sampling event, a complete set of waterlevel measurements should be obtained in order to verify the direction of groundwater flow in the surficial stratum. These data should be provided in tabular form (including top-of-casing elevations, depths to water, and corresponding waterlevel elevations) and in graphic form showing the consultant's interpretation of the groundwater flow direction.

7. The levels in groundwater of naphthalene (320 ug/l) and 2-methylnaphthalene (270 ug/l) are substantially above the State Organoleptic criteria (Chapter 17-520.400) of 6.8 ug/l for total naphthalene.

8. The soil lead concentration of 689 mg/kg from sample 34S0103 exceeds the standard for clean soil (Chapter 17-775, F.A.C.) of 108 mg/kg.

9. On Figure 5 there are eight symbols that appear to be tanks; however, the text only mentions seven. All objects on all figures should be labeled.