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NAS CECIL FIELD, FL
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LETTER REGARDING U S EPA REGION IV COMMENTS ON DRAFT GROUNDWATER
REMEDIAL DESIGN WORK PLAN FOR LONG TERM MONITORING AT OPERABLE UNIT 9
(OU 9) SITE 57 AND SITE 58 NAS CECIL FIELD FL

3/24/2003

U S EPA REGION IV



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4

ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

March 24, 2003

4WD/FFB

Commander
Department of the Navy
SOUTHNAVFACENGCOM
Attn: Mark Davidson, Code ES339
P.O. Box 190010
North Charleston, South Carolina 29419-9010

Subject: Draft Groundwater Remedial Design Work Plan for Long-Term Monitoring for Operable Unit 9, Sites 57/58, Naval Air Station Cecil Field, Jacksonville, Florida

Dear Mr. Davidson:

The U.S. Environmental Protection Agency has reviewed the subject document. Our comments follow:

1. The first and second paragraphs of Section 1.1.1 need to be restructured for clarity. Specifically, the text would be improved if the second and third sentences in the second paragraph were moved to the first of the first paragraph, and the last sentence of the first paragraph was moved to become the first sentence of the second paragraph.
2. There are problems with the wording in the paragraph on page 1-2 that begins "Analytical results..." The text in the third paragraph indicates that the Site 57 petroleum plume is limited to the shallow part of the aquifer east of building 846, and identifies a deeper well west of that building where the petroleum contamination is present. However, the entire petroleum plume, as indicated by Figure 1-2, is either under or east of Building 846. The description should be clarified to describe how the Day Tank 1 investigation differs from the Site 57 investigation.
3. On page 1-2, in Section 1.1.1, the work plan references one sentinel well CEF-824A-20S and states that if the benzene or TCE GCTLs are exceeded at this well, certain actions will be taken. Three comments are offered on this proposal:
 - a. Some of the area of probable ground-water contamination near the leading edge of the identified plume(s) is not directly upgradient of CEF-824A-20S. Therefore, having only that one shallow sentinel well in to monitor potential plume expansion will not assure that such plume expansion is not occurring. At least one additional shallow monitoring well is needed for the sentinel monitoring program. Well CEF-824A-19S (reference Figure 1-2) is an obvious candidate.

- b. There need to be deeper ("T" depth) monitoring wells paired with the shallow sentinel wells to evaluate potential plume expansion.
- c. Limiting the sentinel well concentration criteria that would trigger action to only benzene and TCE is not acceptable. There is clearly a potential for downgradient migration of other contaminants of potential concern, and any such potentially migrating contaminants need to be included in the sentinel monitoring program. There is no assurance that TCE or benzene would be the first or only contaminants to migrate to the sentinel well locations in concentrations exceeding the target criteria.

4. Two comments are offered on the Section 1.1.2 proposed sentinel well monitoring program for Site 58:

- a. At the bottom of page 1-3, the text indicates that sentinel well monitoring will evaluate the potential movement of naphthalene into previously uncontaminated ground water. Because several other contaminants (mostly chlorinated VOCs) have been detected within the naphthalene plume, there should be monitoring of these additional contaminants at sentinel well locations, at well CEF-B312-08S, where the chlorinated solvents were previously detected, and probably at any other monitoring wells between the sentinel wells and CEF-B312-08S. It is not inconceivable but very unusual that concentrations of these chlorinated VOCs should decrease as dramatically as indicated by the data shown on Figure 1-3. At least short-term continued monitoring of chlorinated compounds is needed to confirm that concentrations at CEF-B312-08S have truly decreased as indicated and to determine if chlorinated VOCs should be a part of a longer-term sentinel well monitoring program. Table 2-2 suggests that both chlorinated VOCs and TRPH may be included in the monitoring program, but the text in Section 1.1.2 indicates that only naphthalene will be evaluated in the long-term monitoring program.
- b. Along with monitoring of the shallow ground water at CEF-B312-12S, there should be monitoring of surficial aquifer ground water at a deeper sentinel well, paired with that shallow well. It is possible that either the naphthalene contamination or chlorinated VOC contamination at Site 58 is migrating both laterally and downward. Table 2-2 indicates that some deeper wells in the upgradient part of the plume will be monitored, which is an acknowledgment of the potential for vertical contaminant migration. In order to assure that the natural attenuation remedy is properly functioning, a deeper sentinel monitoring well is therefore needed.

5. In the paragraph beginning "Groundwater samples for VOC analysis..." on page 2-2, there is a reference to Figure 1-1. This reference appears to be incorrect.

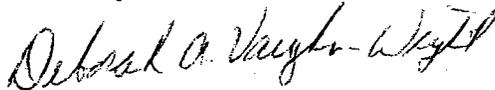
6. In Table 2-2, the "Rationale and Comments" column indicates that monitoring at CEF-B312-09S will be water level monitoring only, yet the table indicates that analyses of VOCs and other constituents is planned for this well. The discrepancy needs to be

corrected.

7. The first paragraph of Section 4.1 needs to list the constituents of primary concern for Site 57 separately from the constituents of primary concern for Site 58.
8. Two comments are offered on the monitoring of natural attenuation parameters (reference Tables 2-4 and 2-5; also Section 4.1):
 - a. Section 4.1 lists a subset of variables presented in the tables and indicates how these variables relate to conditions affecting natural attenuation. All of the relevant variables listed in the tables need to be similarly discussed in Section 4.1.
 - b. Since monitored natural attenuation (MNA) has already been selected as the remedial action for Site 57 and Site 58, it must have been presumed that MNA will be effective. Once this presumption is confirmed by the initial round of remedial action ground-water sampling, it should not be necessary to sample for the MNA parameters at the same frequency as the sampling for the contaminants of concern (COCs). The long-term monitoring proposal could be restructured to reduce the sampling frequency for the MNA indicators. The proposal could possibly eliminate MNA indicators from further monitoring after the initial round of sampling, provided that (1) MNA still appears to be a viable remedy and (2) long-term monitoring of the COCs does not indicate potentially changing geochemical conditions that would signal the need for resumption of monitoring for MNA indicators.
10. In the second paragraph of Section 6.1, the word "initialed" should probably be "initiated."

If you have any questions please contact me at 404/562-8539 or Bill O'Steen at 404/562-8645.

Sincerely,



Deborah A. Vaughn-Wright
Remedial Project Manager

cc: David Grabka, FDEP
Mark Speranza, TTNUS
Rob Simcik, TTNUS
Paul Malewicki, J.A. Jones
Jeff Meyers, SOUTHDIV