N60200.AR.002781
NAS CECIL FIELD, FL
5090.3a

LETTER REGARDING U S EPA REGION IV COMMENTS ON DRAFT LONG TERM MONITORING PLAN FOR OPERABLE UNIT 9 (OU 9) SITE 36 AND SITE 37 NAS CECIL FIELD FL
12/21/2000
U S EPA REGION IV

December 21, 2000

4WD/FFB

Commander
Attn: Mr. Mark Davidson
Mail Code 1879
Department of the Navy
SOUTHNAVFACENGCOM
P.O. Box 190010
North Charleston, South Carolina 29419-9010

Subject: Draft Long-Term Monitoring Plan, Operable Unit 9 (OU9), Sites 36 and 37, NAS Cecil Field, Jacksonville, Florida.

Dear Mr. Davidson:

The U.S. Environmental Protection Agency (EPA) has reviewed the subject document. Several comments were provided by William O'Steen, hydrologist, directly to Joe Logan with Tetra Tech NUS on Friday, December 8, 2000. These comments are repeated below as well as several additional comments:

1. On page 1-1 of the Long Term Monitoring plan (LTM), the 2nd sentence of Section 1.1 needs a modifier for the word "reducton", (such as "contaminant" reduction.

2. In Section 1.1, paragraph 2, the LTM Plan specifies that a decision on either implementation of a contingency remedy or development of a contingency plan will be made as part of the 5-year review process. This restriction to making such a determination only at the 5-year review phase is inadequate. It may be apparent from monitoring data that the contingency plan/remedy should be started sooner than at the 5-year review phase.

3. EPA considers expansion of a plume during groundwater remedial action as an indication of remedy ineffectiveness. Such a condition will trigger some type of remedy modification. The wording in the second paragraph of Section 1.1 can be read to imply that regardless of the nature of the plume expansion, a "protect human health and the environment" criterion will be the benchmark for determining when to implement a contingency remedy. As stated in §300.430 (a)(1)(iii)(F) of the National Contingency Plan (USEPA, 1990, p.8846) EPA expects the remedy will, where practicable, restore ground waters to their beneficial uses, but at a minimum, EPA expects that the remedy

will prevent further migration of the plume. This goal is independent of any current or potential risk.

EPA has agreed to the placement of sentinel wells located 400 feet downgradient of the current plume boundaries. This distance was agreed upon by the BCT and is based on current groundwater modeling efforts, and the lack of groundwater usage in this area. However, it must still be stressed that a major component of groundwater plume management is for no further migration.

This comment also applies to items 2 and 3 on page 1-2. Specifically, if there is confirmed plume expansion, EPA policy states there is a concern that will generally trigger some modification to the remedy. The language on this page indicates that some alternative criterion would be used to define concern regarding plume expansion. These same points are included in the draft ROD for OU9 dated October 2000 page 2-58. Point #3 states "If the revised contaminant plume expansion predicted by the additional modeling is such that it would be of concern, contingency remedies would be developed." This language is unacceptable both here in the draft LTM Plan and in the draft ROD. As stated above, if the plume does indeed migrate 400 feet that is indicative that the selected remedy is ineffective and that a contingency remedy must be implemented.

4. In the future, for similar plans at other Cecil Field sites, maps such as Figure 2-1 need to show plume isoconcentration contours. With such information added, the proposed monitoring wells can be readily understood in terms of their locations within (or outside of) the area of ground water contamination. Figure 2-1 should include the presumed plume boundary and the direction of ground water flow.

5. On page 2-7, some explanation should be provided for why shallow monitoring wells are proposed to have such long screens. Additionally, the tabulation of well data on page 2-1 appears to be erroneous, since the specifications for two of the shallow (15-foot deep) wells call for 15-foot screens.

6. At the top of page 2-15, the LTM Plan proposes annual sampling at the new monitoring wells that are designated "sentinel wells." This sampling schedule is too infrequent, given the intention for these wells to function as an early warning of plume expansion outside of the area of established plume extent. When selecting sampling frequency the following points should be considered:
   a. The reported ground water velocity for the deep zone of the surficial aquifer is 280 feet per year (OU9 RI Report Page 4-36);
   b. Although not presented in the RI Report, the ground water velocity in the intermediate depth zone is apparently of the same approximate magnitude as the deep zone velocity (based on RI Report data on intermediate zone hydraulic conductivity, hydraulic head data, and the same effective porosity that is used in the LTM Plan to calculate ground water flow in the shallow and deep parts of the

aquifer).

c. Given the nature of the contaminants and likely organic carbon contents of the deeper monitoring zones, contaminant transport velocities of the most mobile site contaminants are probably on the order of 100 feet per year or more.

d. The time when the downgradient plume monitoring wells were last sampled is unclear from the information provided. It is possible that the plume front has advanced much closer to the sentinel well locations than would be surmised from review of monitoring data obtained during the RI.

Considering these points, EPA recommends having an initial sampling frequency of twice per year for the wells in "sentinel" positions. This sampling frequency might be modified later, particularly as other wells slightly further upgradient continue to be sampled and the trends in contaminant concentrations (if any) in those wells become apparent.

7. A filter pack consisting of fine sand is not acceptable substitute for a bentonite seal.

8. The document is unclear about what types of contaminants are being evlauated for natural attenuation. The contaminants of concern should be listed so that parameters selected for monitoring can be evaluated.

EPA appreciates the opportunity to work with the Cecil Field BRAC Cleanup Team on this project. If you have any questions regarding this letter please contact me 404/562-8539.

Sincerely,

Deborah A. Vaughn-Wright
Remedial Project Manager

cc: David Grabka, FDEP
Scott Glass, BEC, SOUTHDIV, Mail Code 18B12
Mark Speranza, TTNUS
Sam Ross, J.A.Jones