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May 27, 2010

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NAS PENSACOLA

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Ms. Patty Marajh-Whittemore
Naval Facilities Engineering Command Southeast
Post Office Box 30
Building 903
Naval Air Station Jacksonville
Jacksonville, Florida 32212-0030

RE: Draft Final Feasibility Study for Operable Unit 21, Site 46 - Former Building 72
Site, Naval Air Station Pensacola, Pensacola, Florida.

Dear Ms. Marajh-Whittemore:

I have completed my review of the Draft Final Feasibility Study for Operable Unit 21, Site 46 - Former Building 72 Site, Naval Air Station Pensacola, dated February 2010 (received February 25, 2010), prepared by Tetra Tech NUS, Inc. I have the following comments on the Draft Final Feasibility Study (FS):

- (1) The list of Contaminants of Concern (COCs) for groundwater located on page ES-6 and in Section 2.2.2 on pages 2-10 and 2-11 of the FS does not match the discussion of contaminants detected in groundwater above groundwater cleanup target levels (GCTLs) on pages ES-3 and ES-4 and in Section 1.1.3.2 **Nature and Extent of Contamination - Groundwater**. The COCs for groundwater, and their corresponding GCTLs, that have been neglected in much of the discussion on the remedial alternatives evaluated include naphthalene, lead, chromium, aluminum, iron, manganese, sodium and vanadium. These contaminants and others are included as potential COCs for groundwater in the Remedial Investigation Report for Site 46. While there may be reasons for eliminating some of those contaminants from further consideration as COCs, the arguments have not been put forward in the report.
- (2) The current and anticipated future use of the site is as a recreational plaza and park with a central covered including a gazebo and elevated stage. In Table 3-1 on page 3-3, for the Limited Action response, it says that current and future land use is industrial, which should be changed to recreational. It also says in Section 4.2.1.2, page 7-7, top of page, that the site is currently used for commercial/ industrial purposes.

- (3) There are conflicting statements within the report regarding how contaminated soils are to be addressed. It is stated in some parts of the report that surface soils were excavated to a depth of approximately two feet below land surface and that remaining soil contamination does not exceed residential soil cleanup target levels but that some subsurface soil remains with TCE concentrations that exceed the Department's SCTL for leachability to groundwater. Based on this, remedial action objective RAO 1 stated in Sections E.5 and 2.1.1 is appropriate. In other parts of the report, specifically in Sections E.6, E.7, 3.2.2.1 and 4.2.2.1, the application of land use controls (LUCs) to prohibit residential or residential-like uses as remedial alternative S-2 is discussed. If contaminated soil above residential SCTLs does not remain, the non-residential LUC remedy to prevent unacceptable risks from exposure to soil would not appear to be warranted. The conflict between either preventing leaching of contaminants from soil to groundwater or preventing unacceptable risks from exposure to contaminated soil is prevalent throughout the report.
- (4) It is mentioned in several parts of the report that the Navy has concluded that Site 46 would qualify for the Department's RMO Level II for soil and RMO Level III for groundwater. Please note that the Department would require a minimum of a year's worth of quarterly groundwater monitoring showing that the plumes are stable and not migrating before the Department could accept RMO Level III for groundwater. Please also note that EPA has argued in the past that because the Department's RMO Level III for groundwater provides for a permanent groundwater use restriction without required groundwater monitoring, that the threshold criteria of compliance with chemical-specific ARARs would not be verified and that the primary balancing criteria of reduction of toxicity, mobility, or volume through treatment would also not be complied with.
- (5) In Section 2.4, page 2-12, fourth bullet in subsection on Groundwater, it says the thickness of the saturated volume of the aquifer matrix used in volumetric calculations was 4 feet based on the lithology of the shallow aquifer. The calculation based on that thickness is presented at the end of Section 2.4.2. I believe the 4 foot thickness is likely a gross underestimate of the actual aquifer thickness impacted. Shallow groundwater wells were screened from approximately 4 to 14 feet below land surface and comprise approximately 10 feet of aquifer being previously sampled. Also, the calculation of the volume of contaminated aquifer appears to only be based on TCE and vinyl chloride and does not take into account the other contaminants detected in groundwater above their GCTLs.

- (6) On page 3-15, in the subsection describing the cost associated with excavation, it states that because the depth to the water table is approximately 14 feet below land surface, requirements for dewatering would not exist under dry weather conditions. As shallow monitoring wells were screened from 4 to 14 feet below land surface (see page 1-11, top bullet), this statement should be re-evaluated.
- (7) On page 1-21, fifth bullet, it states that it is evident based on groundwater monitoring data that the plumes are stable and not migrating. Not enough groundwater data has been collected to support that statement.
- (8) I cannot get Figure 4-1 to agree with Figure 1-5. Figure 4-1 has the area with TCE in soil to be addressed because of potential leaching of TCE to groundwater centered on soil boring location 46SB29, which Figure 1-5 shows that soil boring not contaminated with TCE above its leachability SCTL; and Figure 4-1 does not have soil borings 46SB33 and 46SB34 outside the TCE impacted area, while 1-5 shows both those borings as having TCE concentrations above its leachability SCTL.
- (9) On Figure 4-2, at monitoring well 38GS01, please change "Grondwater" to "Groundwater". Please also show where the naphthalene GCTL exceedance was located.
- (10) In Section 5.1.2, on page 5-3, in the subsection on soil, it says that Alternative S-2 would comply with chemical- and action-specific ARARs. In the next sentence, where it says that Alternative S-2 "would not immediately comply with -specific ARARs", what type of ARARs are being discussed? I believe chemical-specific ARARs may fit into the sentence best.
- (11) In the discussion on the short-term effectiveness of Alternative S-2 in Sections 5.1.5 and in Table 5-1, it says that the implementation of LUCs on the site would have minimal short-term effectiveness concerns as exposure of workers to contamination would be minimized by the wearing of appropriate PPE and complying with site-specific health and safety procedures. I do not believe the implementation of LUCs on the site would require any site work. Rather, the implementation should mainly be an administrative exercise except for a requirement for regular inspections and annual reporting on the status of the LUCs on Site 46.

Ms. Patty Marajh-Whittemore
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If you have any concerns regarding this letter, please contact me at (850) 245-8997.

Sincerely,



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Remedial Project Manager
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