



Florida Department of Environmental Protection

OFFICIAL CORRESPONDENCE: This electronic message is sent in lieu of regular mail.

From: Tracie L. Vaught

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Date: October 12, 2005

To: Mr. Bill Hill

Site or Document: Treatability Study Evaluation Report for Underground Storage Tank (UST) Site 18

Facility: Naval Air Station Pensacola

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The Department (Jeff Lockwood and Tracie Vaught) have reviewed the subject document and find it to be adequate for its intent and approved. Jeff Lockwood had the following comments:

1. I have reviewed the Evaluation Report and concur that the data do not appear to support the use of the proposed PermeOx® Plus amendment. The stated objective of the Treatability Study was to treat the two "hottest" areas of petroleum contamination. The recommendation to consider chemical oxidation followed by bioremediation as candidate treatment alternatives is reasonable. I can understand why air sparging would be considered only reluctantly since the larger plume is several hundred feet across and the cost of a system to treat the entire plume might be prohibitive. Also, the presence of an organic zone at depth would limit the usefulness of AS below the shallow zone.
2. However, it may be practical to employ air sparging on a more limited basis with the goal of reaching natural attenuation criteria for groundwater throughout the site. Table 2-2 shows that with the exception of benzene in

18GI27, all contaminants exceeding natural attenuation criteria were in the shallow zone: 18GS01, 18GS02, 18GS28, and 18GS30. If a 20 foot ROI is assumed, a 300 x 100 foot area in the northern plume shallow zone could be treated by roughly 30 wells and the southern plume could have a limited number of wells in the vicinity of 18GS30. The need for SVE would be determined on the basis of contaminant mass estimates and the removal rate that would ensue as a result of air sparging. Due to the size of the plume, a pulsed mode of AS might be considered so that the removal rate remains below 13.7 lb/day.

3. Please note that the feasibility of AS/SVE could be affected by refinement of the site conceptual model – including the distribution of peat and clays in the shallow zone. If a continuing source of petroleum contamination is present, AS/SVE would provide an ongoing remediation technology as opposed to repeated remobilizations to apply bioremediation/chemical oxidation amendments. It could very well turn out to be the most cost-effective approach

Please feel free to contact me if you have any questions, (850) 245-8998.