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Florida Department of Environmental Protec

Lawton Chiles
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Virginia B. Wetherell
Secretary

August 24, 1993

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Ms. Linda Martin
Department of the Navy
Southern Division - Code 1851
Naval Facilities Engineering Command
Post Office Box 10068
Charleston, South Carolina 29411-0068

Dear Ms. Martin:

Department personnel have completed the technical review of the Draft Feasibility Study for Operable Unit 10. I have enclosed a memorandum addressed to me from Mr. Bill Neimes and Mr. Jorge R. Caspary. They document our comments on the referenced report.

If I can be of any further assistance with this matter, please contact me at 904/488-0190.

Sincerely,

Eric S. Nuzie
Federal Facilities Coordinator

ESN/bb

Enclosure

cc: Jorge Caspary
Bill Neimes
Bill Kellenberger
Ron Joyner
Allison Drew
Satish Kastury
Lynn Griffin
John Mitchell

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Florida Department of
Environmental Protection

Memorandum

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

THROUGH: Dr. James J. Crane, PG Administrator
Technical Review Section

FROM: Jorge R. Caspary, PG I/Base Coordinator
Technical Review Section JRC

DATE: August 23, 1993

SUBJECT: Review of Draft Feasibility Study Operable Unit 10.
Pensacola Naval Air Station.

.....

I have reviewed the subject document and submit these comments for the Navy's consideration.

GENERAL COMMENTS

The second phase of sampling and analysis at Operable Unit 10 was incorporated into this Document and confirms the presence of "hot spot" contaminant sources as opposed to a single source. As such, the Feasibility Study for OU-10 presents four alternatives designed to abate the source of contamination. With the exception of the "No Action" alternative -which is not acceptable given the current contaminant leveis in soil and groundwater-, all the other alternatives are feasible and, depending on monetary allocations, implementable; however, the Department will await the results of the supplemental sampling and analysis to be incorporated into the Draft RI report to subsequently arrive at a tripartite decision regarding the best alternative to be employed in the remediation of soil and groundwater at this Operable Unit.

Few data gaps remain at this Operable Unit and can be completed as the FS and subsequent Proposed Plan are implemented; therefore, the Department suggests that once the already completed second round of sampling and analysis is incorporated into the RI report, the three parties to the FFA meet to discuss the upcoming Proposed Remediation Plan.

SPECIFIC COMMENTS

Page 2-2 Expectations. In the spirit of cooperation, please add FDEP to the seven expectations named on this heading.

Page 3-4 Table 3-1. Subsurface Drains made of perforated pipes in trenches commonly known as "horizontal wells" and/or collection sumps or sump pumps are also potentially applicable at shallow depths at this Operable Unit; therefore, modify the table and indicate on it the depths at which this technology is not expected to work.

Page 4-38. Please distinguish the wells proposed to supplement the actual well extraction system. Likewise, four proposed additional extraction wells were input into the WHPA RESSQC program and apparently seem to be sufficient to capture the contamimant plume; however, the Department suggests the Navy incorporate into the program a variety of well configurations and increase the well numbers to five to determine whether a recovery well between GM-64 and ES-13 would affect the capture zone of RW-7.

Page A-3. With the exception of the Abandoned Wastewater Treatment Plant sludge drying beds, Site 13 between the abandoned WWTP and Magazine Point Peninsula could conceivably be given a No Further Action; therefore, the Navy should consider the removal and disposal of the beds under a CERCLA Interim Removal Action. Precedent for this type of action exists at Operable Unit 2 at NAS Jacksonville and Sites SS-7, WP-1, and FT-4 at Homestead Air Force Base.

Memorandum

Florida Department of
Environmental Protection

To: Eric Nuzie
Federal Facilities Coordinator

From: Bill Neimes
Engineering Support Section

Date: July 28, 1993

Subject: Draft Feasibility Study
NAS Pensacola
Operable Unit 10

The subject document has been reviewed by the Engineering Support Section. Different alternatives for the remediation of both soils and groundwater are discussed. The contamination consists of a variety of organic and inorganic constituents. Although there are five selected alternatives which are compared to the requirements stipulated in the National Contingency Plan, the text does not make a final determination of which of these alternatives will be used at this site. Below are some of my thoughts about the different alternatives selected for remediation.

- Capping is mentioned in Alternative 2 and Alternative 3 as a method to prevent the desorption of chlorinated aromatics in the soils to the groundwater. Although capping should prevent the infiltration of storm water through the contaminated soils, my concern with installing a cap is that it will not prevent the flushing of the soils from tidal influences or from seasonal fluctuations in the groundwater table. This concern is also mentioned in the text.

- The continued use of existing recovery wells is the selected groundwater remediation system in Alternative 2. Based on some modeling presented in the text, this system will not fully capture the existing contamination plume. Therefore, the selected groundwater remediation system should use supplemental groundwater recovery wells. (Either Alternatives 3, 4 or 5.)

- Alternative 5 utilizes Low Temperature Thermal Desorption as the treatment method for the soils contaminated with organic constituents. Although this may be an appropriate treatment technology, the text mentions that there have only been 13 contaminated sites which have used this technology and 13 sites have this technology in the record of decision. Considering the amount of soils to be thermally treated, (approximately 4000 cubic yards from Area's A, B, and D3), I don't know if this quantity of soils justifies this treatment technology.

I have also included some specific comments for your consideration.

1. Figure 1-8. The area of soil contamination is estimated to be 17,200 ft^2 for Area A and 4,300 ft^2 for Area B (see page 1-23). Based on this figure, I estimate the dimensions of Area A to be approximately 187 ft X 65 ft or approximately 12,000 ft^2. The dimensions of Area B are estimated to be 40 ft X 40 ft or 1600 ft^2. If my estimates are accurate, the amount of soil to be thermally treated in Alternative 5 is even less than that estimated in the above comment (my calculations estimate a total amount of contaminated soil to be treated as approximately 2250 yds^3). The use of thermal treatment technology for this quantity of soil is even more questionable.

2. Page 2-11. The clean soil criteria for metals have been revised as of November 1992. The new standards are attached.

3. Page 4-36. Were the operational problems for the existing groundwater recovery system due to poor installation practices or from lack of proper maintenance? If additional recovery wells are installed, what will be done to mitigate these fouling problems?

The Model in Appendix E uses the flowrates from the existing recovery wells to estimate the capture zone of these recovery wells. As indicated in the figures of Appendix E, the existing recovery wells will not capture a majority of the contaminant plume. However, if the recovery wells operate efficiently, a much larger flowrate could be obtained thorough each recovery well.

Given the aquifer parameters and using the Theis equation, I have calculated a flowrate which a recovery well could provide assuming that it operates 100 % efficient with an assumed drawdown of 3 feet at the well. These aquifer parameters are:

transmissivity = 1002 ft^2/day and 5458 ft^2/day
storativity = 0.3
radius of well = 0.165 ft (4 inch diameter well)
time = 3650 days (10 years)

For a transmissivity of 1002 ft^2/day, the recovery well could operate at 9.5 gpm. For a transmissivity of 5458 ft2/day, the recovery well could operate at 47.7 gpm. These flowrates are a magnitude higher than those assumed in the model.