



DEPARTMENT OF THE NAVY

NAVAL AIR STATION
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Mr. Ernest E. Frey
Deputy Assistant Secretary
Florida Department of Environmental
Regulation
3426 Bills Road
Jacksonville, Florida 32207

Subj: OGC CONSENT ORDER NO. 88-0280 UNITED STATES NAVAL AIR STATION
JACKSONVILLE, FL., ID NO. FL6170024412, HAZARDOUS WASTE SURFACE
IMPOUNDMENT (FORMER IWTP SLUDGE DRYING BEDS) OPERATION PERMIT
H016-119108

Dear Mr. Frey:

This correspondence is in response to the Department's review comments on our Plume Delineation Report (PDR) and the Corrective Action Plan (CAP) for the subject facility and permit. This correspondence is based upon detailed discussions which took place on January 13, 1989 between the Department's staff (Jacksonville and Tallahassee personnel) and representatives of the Navy (NAS Jacksonville and Southern Division Naval Facilities Engineering Command with Geraghty and Miller consultants).

The purpose of the meeting was to discuss specific concerns of the Department so that the Navy's response could be precise, complete, and accomplished in a mutually agreeable time frame. This response addresses the issues in the same order in which they were listed in the Department's letter.

Page 1, General comments.

Concur, more precise language will be included in the revised report.

Page 2, Plume Delineation Report, General comment.

Concur, additional assessment is to be performed as detailed below.

Page 2, Comment 1.

Low yields prevented pump testing despite the fact that Well 12D is a 4" well. Similarly, the shallow wells could not be pump tested, and there was no discernable response to pumping Well 12D in Well 4-5. The very tight silty sand materials retard well recovery and inhibit adjacent well response. Therefore, it is our position that our studies have determined that the tight lens from depth approximately 10 ft to 30 ft is consistent across the site, the aquaclude is tight (permeability of 1.6×10^{-7} cm/sec), and that interconnection of the surficial and lower aquifers essentially does not exist. The supportive documentation is provided as Enclosure (1).

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Page 2, Comment 2.

Concur, although considerable data has already been provided, additional slug test and specific capacity data will be provided in the submittal of the revised report.

Page 2, Comment 3.

Sand packs were used because of the concern for possible trace metal contamination in bentonite sealing material and possible cation adsorption on a negatively charged packing. Supportive documentation for this concern along with a description of the installation technique are provided as Enclosure (2).

Page 2, Comment 4.

Concur, will address in revised plan submittal.

Page 2, Comment 5.

Concur, isoconcentration contour maps are included as Enclosure (3).

Page 2, Comment 6.

Hydraulically, the specific capacity data show no proof of interconnection, while geochemically Wells 4-12D and 4-13D are clean but Well 4-5 shows the presence of contaminants. It was agreed that the Navy would propose additional wells. In addition, data on the confining units will be more fully developed. The Navy proposes to install seven sets of paired wells (to depths of approximately 10 ft and 30 ft each), generate hydraulic conductivity data, measure water levels, and analyze each well to detect contaminants. The proposed parameter list includes VOC, TOC, TOX, pH, Specific Conductance, Cd, Cr, Ni, Sulfide, and Cresols. The proposal to sample and analyze these new wells is for two events to be six months separated if the data support the position that there is no interconnection of the aquifers. If the data indicate interconnection or contaminant presence, then an alternate monitoring schedule will be proposed. The locations of the proposed wells is indicated on Enclosure (4).

Page 2, Comment 7.

As addressed during the meeting, both flow rates are less than 10 ft/yr, with the calculated rate in the range of 0.5 to 4 ft/yr, and an empirical estimate of 9 ft/yr. These rates are very comparable.

Page 2, Comment 8.

As explained during the meeting, the former industrial sludge beds are now out of service. While the mounding effect may have previously occurred, it was certainly a very transient event. Any attempt to further pursue the phenomenon would be a purely hypothetical endeavor rendering no currently significant data, but would represent an avoidable cost to the taxpayers. Therefore, it was agreed the issue would be dropped.

Page 2, Comment 9.

The Navy's Consultant acknowledged an error in identifying Wells 4-13 and 4-16. The correct well identification is Wells 4-12D and 4-13D. This correction will be included in the revised plan submittal.

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Page 2, Comment 10.

Concur, refer to the posposal for additional wells described previously.

Page 2, Comment 11.

11.a) The Navy position is that sulfide is naturally occurring as reflected by the background well (Well 4-9) sulfide level of 1.1 mg/l, and the occurrence of the sulfide data throughout the site. It is requested the Department reconsider its position on this issue.

11.b) Concur.

11.c) Concur.

11.d) Concur.

Page 3, Comment 12.

Concur, the requested information will be included in the revised plan.

Page 3, Comment 13.

Concur, the requested information will be included in the revised plan.

Page 3, Comment 14.

Concur, the requested information will be included in the revised plan.

Page 3, Comment 15.

Concur, the requested information will be included in the revised plan.

Page 3, Corrective Action Plan, General Comment. The Navy agrees to provide a more detailed Plume Delineation Report and this Report is the prerequisite basis for a more specific Corrective Action Plan.

Page 3, Comment 1.

The Navy agrees to provide additional data, although it is believed the data will support the position that detection of contaminants is limited to the surficial aquifer (to about 10-14 ft) and predominantly to the east (downgradient) with limited contaminant presence to the north.

Page 4, Comment 2.

The groundwater protection standards for cadmium and nickel have been exceeded. The background values are provided as Enclosure (5).

Page 4, Comment 3.

This comment is addressed in the Plume Delineation Report proposal for additional cluster wells. It is believed the proposal will verify the downgradient limits of the plume, its presence or absence in the lower aquifer, and be capable of defining the impact of the recovery trench on groundwater movement. If the downgradient plume boundary cannot be determined, additional monitoring wells will be required. However, the proposed trench system may be able to abate the entire plume.

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Page 4, Comment 4.

Engineering plans and specifications will be submitted in satisfaction of the Consent Order requirement to submit Corrective Action Final Design 75 days after receipt of Department comments on the Corrective Action Plan 100% Report (see paragraph 16 of the Consent Order).

Page 4, Comment 5.

Concur, quarterly monitoring will be done on a 60-day minimum and 120-day maximum frequency. In addition, the Navy agrees to perform an additional round of quarterly monitoring in place of the March - April - May 1988 monitoring inadvertently omitted.

Page 4, Comment 6.

Concur, although the data requested has been previously submitted in various reports, the requested information will be consolidated and included in the revised plan.

Page 4, Comment 7.

Concur, the Florida P.E. certification will be provided by our contractor (Geraghty & Miller).

Page 4, General Comment.

As discussed in detail with the Department representatives, paragraph 17 of the Consent Order allows for the Navy to submit a proposal to the Department concerning a schedule within which the Navy will complete additional field work requested by the Department. Because of the intensive nature of the comments raised by the Department, a considerable field effort is required to produce an acceptable Plume Delineation Report and Corrective Action Plan. The following schedule is submitted for the Department's concurrence:

	a.	Submittal of schedule	January 25, 1989
	* b.	Acceptance of schedule or negotiation of mutually acceptable schedule	(by the Department)
	c.	Navy to award notice to proceed to contractor	+30 days after schedule acceptance
45 days	d.	Submit revised Plume Delineation Report	+75 days after schedule acceptance
75 days	e.	Submit Corrective Action Plan 100% Report	+105 days after schedule acceptance
100 days	f.	Department provides review comments on Corrective Action Plan 100% Report	+135 days after schedule acceptance
125 days	g.	Submit Corrective Action Final Design (Plans and Specifications)	+165 days after schedule acceptance

I would like to thank the Department's staff for their assistance in working toward resolution of the issues.

I trust the good-faith proposal put forth in this correspondence will be acceptable to the Department. If there are questions, please contact the Environmental Director at 772-2717/2798.

Sincerely,



A. W. JOHNSON
CAPTAIN, GEO. USN
BY DIRECTION OF THE COMMANDING OFFICER

by Gentry & Miller