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Florida Department of Environmental Regulation

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Lawton Chiles, Governor

Carol M. Browner, Secretary

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NAS PENSACOLA

5090.3a

January 11, 1993

**CERTIFIED MAIL
RETURN RECEIPT REQUESTED**

Ms. Linda Martin
Code 1851
Department of the Navy - Southern Division
Naval Facilities Engineering Command
2155 Eagle Drive
Post Office Box 10068
Charleston, South Carolina 29411-0068

Dear Ms. Martin:

Department personnel have completed the technical review of the Navy's Responses to Comments by FDER on Draft Interim Data Reports for Site Groups F, G, J, K, M and N, NAS Pensacola. I have enclosed a memorandum addressed to me from Mr. Jorge R. Caspary. It documents 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
Eric S. Nuzie

Federal Facilities Coordinator

ESN/bb

cc: Jorge Caspary
Bill Kellenberger
Ron Joyner
Allison Drew
Satish Kastury



State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

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Interoffice Memorandum

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

THROUGH: Dr. James J. Crane, PGIII/Administrator *JJC*
Technical Review Section

FROM: Jorge R. Caspary, P.G. Base Coordinator *J.R.C.*
Technical Review Section

DATE: December 29, 1992

SUBJECT: Review of Navy's Responses to Comments by FDER
regarding Draft Interim Data Reports for Site Groups F,
G, J, K, M, and N. Naval Air Station Pensacola.

The above referenced responses have been reviewed and while most of the responses adequately address Departmental comments expressed on the June 5, 1992 memorandum, there are a few responses that merit revision. Please note, save for the concerns presented below, the documents should be considered final. The Department looks forward to resolving the issues presented below at the next RPM meeting.

General Comment No.2 - Response 2

The Department disagrees that an eight hour pumping test should suffice for designing a remedial design system. The Navy states that " due to the unconfined conditions in the Sand and Gravel Aquifer (storage is effectively equal to the specific yield) the most dramatic changes occur and the outer edges of the cone of influence". While the above statement is generally true, the accuracy of drawdown data taken during a pumping test not only depends on the unconfined conditions of an aquifer where storativity may be equal to specific yield but on a variety of other factors amongst them duration, maintaining a constant discharge, and comparing recovery data with drawdown data taken during the pump test . While it may have been the Navy's experience at NAS Pensacola that eight hours is a sufficient length of time to conduct a pumping test, it seems that at least at Operable Unit 10, the experience has not been a positive one. The Department recalls that water levels at the recovery wells have dropped below the water pump intakes, thus, necessitating a revision of the original pump design package over a period of one year.

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While it may be open to argument that this revision is the result of a deficient aquifer pump test, it serves to point out that short pump tests are not always the ideal solution to obtain aquifer parameters for remedial design purposes.

This reviewer is fully aware that a practical disadvantage of pump tests, as opposed to a piezometer test, lies in the expense of installing test wells and observational piezometers; moreover, this reviewer is also aware that unless there are clear hydrogeologic and engineering principles, there will be difficulties in predicting the effects of any pumping test; however, the only way known to this reviewer in which these difficulties and potential errors can be minimized is through a long, constant rate -or if needed, a step drawdown- pumping test. Furthermore, a six to eight hour constant rate pumping test is usually the standard of the groundwater industry to determine maximum anticipated drawdown, the volume of water produced by a particular engine and whether the discharge from the pump is being piped far enough away so that recharge is avoided. Only after the data mentioned above has been gathered, potential errors spotted, and machinery calibrated, should the actual pump test start. The absence of early drawdown data in a short pumping test (eight hours or less), may create errors in transmissivity, storativity and may influence an erroneous placement of water pumps regarding the water table after stabilization of the aquifer. Unless the Navy can prove that an eight-hour pump test is sufficient to design a comprehensive, remedial design package, the Department recommends that a longer aquifer pumping test be implemented on a site-specific basis.

Phase II- Site 34- Reponse to Comment No. 1

The Navy indicates that maintaining strict inventory and no losses reported to date should be rationale enough for not testing the tanks and lines for leakage; however, pages 14-17 and 14-18 states "a potential source of TRPHs in soil and groundwater does exist near the pipeline leading to Bldg. 3557". This sentence contradicts the first sentence of this paragraph and in the Department's view provides enough rationale to test at a minimum, the pipeline for tightness. The Department stands by its position that the lines leading from the tank farm to Bldg. 3557 should be tested for tightness.

Phase II- Site 3 Crash Crew Training Area Response 1

The Department compliments the Navy in its expediency in preparing the necessary Interim Remedial Measures documentation at six of the eight burn areas independent of the 1993 Site Management Plan and awaits the documents for appropriate review.

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Please indicate if such documents will be submitted in conjunction with the results of the Oak Grove Campground Site.

Phase II - Site 36- Industrial Waste Sewer - Response 1

In view of recent developments regarding the 1993 SMP which directly affect this site, appropriate comments will be deferred until all three RPMs decide on the best course of action regarding the investigative approach at this site.