

STATE OF MAINE

# DEPARTMENT OF ENVIRONMENTAL PROTECTION

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October 27, 1993

Mr. Fred Evans  
Project Manager, Code 1821  
Department of the Navy, Northern Division  
Naval Facilities Engineering Command  
10 Industrial Highway, Mailstop 82  
Lester, Penn. 19112-2090

Dear Mr. Evans:

The Maine Department of Environmental Protection has received and reviewed the, "Draft Technical Memorandum Site 9 Neptune Drive Disposal Site", dated September 1993, Naval Air Station Brunswick, Brunswick, Maine. The Department's comments are provided below.

I enjoyed meeting you on Base for our abbreviated site tour on Tuesday October 27, 1993. As we discussed, the State still has concerns about the sporadic detections of Vinyl Chloride both north and south of Neptune Drive and the lack of groundwater monitoring data north of Neptune Drive, in addition to several other questions which are provided in this letter. From what you told me yesterday on-site, the Navy is not at this time proposing long-term monitoring and natural attenuation as a final remedial action, nor is this action being proposed in pursuit of a ROD.

Considering our conversation yesterday, the State, at this time, supports the Navy's recommendation for additional groundwater monitoring at Site 9, provided that this action is not proposed as a final solution, that this action is not proposed in pursuit of a ROD, and that the Navy provides a groundwater monitoring plan to the Department for the Department's comments prior the Navy conducting additional groundwater monitoring at Site 9.

## General Comments

The Department still has some concerns regarding Base-wide background locations, as also noted in the Department's comments on the Draft Final SI for the Swampy Road and Merriconeag Sites. It would be very helpful if you would submit to the Department: Site Maps for each background location (Showing the extent of known contamination and

groundwater flow directions) and all analytical data for soils and water collected at the background locations including boring logs and screening data.

**Site 9 Background Locations:** The Department does not accept MW-916 as an appropriate site-specific background location. MW-916 is approximately 22 feet away from TerraProbe sampling location T-21. T-21 was sampled from 8-10 feet below land surface. Ash comprised almost all of the two foot sample. Although TerraProbe samples were collected between T-21 and MW-916, the appropriate depths may not have been sampled. For example, T-23 was sampled at 8-10', T-24 was sampled at 8-9 feet and 12-13', and T-31 was sampled at 9-10

The boring log for MW-916 must be included in this Report. The Department must review this boring log prior to consideration of MW-916 as an appropriate background location. The photocopy of the TerraProbe field log included in the Tech Memo appears to be missing some information related to T-23. The Department would like to view the original field notes.

**Improper application of AWQC:**

The Department does not apply AWQC based on whether or not surface water is used for drinking water. The State of Maine has a Water Classification System in place which classifies all waters of the State. The designated use of all surface waters is that the water must be suitable for drinking. Sometimes surface water may require disinfection or treatment, so that it can meet drinking water standards.

The Department does not agree with the Navy's argument that because the surface water in the unnamed streams at Site 9 is not used for drinking water, the AWQC for Protection of Human Health are not ARARs, and are therefore not considered except to provide reference framework within which the observed values may be evaluated. AWQC must be considered for both the Protection of Human Health and for Protection of Freshwater Aquatic Life.

**Effectiveness of the current Monitoring Well Network**

The Navy must conduct further studies to support the conclusion that the current well network is sufficiently monitoring leachate emanating from the ash landfill. The Navy's responses to comments concerning the effectiveness of the well network are not supported by site specific data. Information must be collected to support or to refute their position.

The Navy must evaluate the water quality throughout the vertical extent of the aquifer. Monitoring wells MW-914 and MW-915 screen the interval from 7-17 feet below the land

surface. No other intervals have been screened in the area directly downgradient of the ash landfill. Although the specific density of vinyl chloride is less than water (0.91), it is probably a breakdown product of a chlorinated solvent whose specific gravity is greater than one.

It appears that analysis for Vinyl Chloride was performed on about half the samples. The sporadic detection's of Vinyl Chloride may be due more to ineffective sampling techniques and sporadic analysis of the samples. As we discussed with Jack Dunleavy on Tuesday, a different sampling approach may be required to capture Vinyl Chloride during sampling. Troy Smith is going to send Mr. Dunleavy information on a technique devised by Robert Puls which may be useful in sampling at Site 9. Vinyl Chloride is one of the most difficult compounds to sample without losing it to the atmosphere. An alternative groundwater sampling method must be developed to reduce the volatilization. The rapid volatilization could be the cause for the sporadic detections.

Evaluate other possible source areas for VOC contamination. There are other buildings near Site 9 that may have had releases contributing to VOCs detected both north and south of Neptune Drive.

Additional information is required to determine the extent of the hydraulic control the former drainpipe has on the aquifer in the vicinity of LT-901. The existence of the control is evidenced by the presence of a seep at the former discharge point of the removed drainpipe. Page 2-3 states, "The seep is located at the end of the northern stream at the discharge of the former drain."

#### **Specific Comments**

**Page 2-1, third paragraph.**

Figure 2-1 does not show RI test pit locations as indicated in the text.

**Page 2-1, fifth paragraph.**

Given the estimated seepage rates, is it possible to sample the seeps with a seep sampling device?

**Figure 2-1**

What was the rationale for not including MW-909 and MW-910 in the groundwater elevation measurements on 8/19/93? Groundwater elevation measurements in these wells are important to know.

**Page 2-7, top paragraph.**

How do the lead concentrations detected in the Site 9 sediments compare to the Mere Brook sediment samples?

**Page 2-11**

The text should state that two phases of TerraProbe investigations were completed north of Neptune Drive. The second phase was completed after the installation of monitoring wells 914, 915, and 916. Information collected during the second phase revealed that ash exists north of the breezeway between buildings 218 and 219. Ash was discovered within 22 feet of MW-916 at a thickness greater than two feet. Therefore, additional information will be needed to determine if MW-916 is an appropriate background location.

**Section 2.2.1.2-3, PAH detections.**

Are the petroleum odors and oily sheens indicated in the TerraProbe logs associated with the presence of PAHs?

**Figure 2-4**

T-15 should be solid black to indicate that ash was present in the sample collected.

The Figure should show that the presence or absence of ash at T-7 could not be evaluated due to refusal at 10 feet. Please determine the nature of the object at that caused refusal at 10 feet.

**Table 2-8**

The State of Maine MEGs should be included in this Table.

**Field Notes**

Field notes taken during boring and well installation must be included in an Appendix.

Please call me at 207-287-2651 if you have any questions or comments.

Sincerely,



Nancy Beardsley  
Project Manager, Federal Facilities Unit  
Office of the Commissioner

cc: Bob Lim, USEPA  
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