STATE OF

DEPARTMENT OF ENVIRONMENTAL PROTECTION

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November 17, 1995

Commanding Officer
Attn: Code 1823/Lt. Conroy
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RE: **Navy Response to MEDEP Comments, Draft On-Shore Feasibility Study (FS) Report, March 1995, Portsmouth Naval Shipyard, Kittery, Maine**

Dear Jim:

The Maine Department of Environmental Protection (MEDEP) has reviewed the Navy's draft responses to the MEDEP's Feasibility Study Report comments dated 5/4/95 (Soil MPSs), 5/10/95 (DRMO), 5/25/95 (JILF), 6/20/95 (Technical Meeting DRMO), and 6/28/95 (Tank SWMUs). The Navy's draft responses were received by the MEDEP on September 12, 1995. The Department's comments are provided below.

Response to MEDEP Telecopy Dated 5/4/95
Media Protection Standards
Draft On-Shore FS Report
NSY Portsmouth, Kittery, Maine

Specific Comments

1.) Response to G-1 General Comment, Page 1-3, Para 6

"The 2.9 mg/kg concentration was from a soil boring sample collected from 0-2 feet. This was considered a subsurface sample for risk assessment purposes (surface soils were from 0-12")."

It's a mute point when considering media protection standards (MPSs) since surface soil MPSs will be applied regardless of soil depth. MEDEP believes it is important to establish that we can't consider a 0-2 ft. soil sample as subsurface soils when applying risk scenarios.

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Response to MEDEP Comments Dated 5/10/95
DRMO - SWMU #6
DRMO Impact Area - Quarters S, N, & 68
Draft On-Shore FS Report
NSY Portsmouth, Kittery, Maine

Specific Comments

2.) Response to G-1 General Comment, Page 2-4 , Para 7

"• Page 3-27, Para. 2, will be revised as follows: "As the average depth to groundwater is also 10 feet (at high tide), the first volume estimate will account for unsaturated soil only and therefore will remove the bulk of contamination since lead contaminant concentrations generally decrease with depth. Additional soil sampling may be conducted as part of predesign of as confirmatory sampling during remediation."

As previously indicated, the MEDEP did not feel soil samples collected as part of the RFI[1] adequately characterized subsurface conditions at the DRMO. The Navy has included additional subsurface lead data (Final Confirmation Study, 1984) on Figure 2-16a included in Attachment D of this response package. This additional data further supports the Navy's general contention that lead concentration decrease with depths. However, high concentrations of lead were reported for samples collected below the proposed soil removal depth of 10 feet including: #51-12' (10,300 mg/kg Pb); #51-16' (3,960 mg/kg Pb); and #52-16' (5,060 mg/kg Pb).

Any information used from the FCS 1984 report for the basis of remedial decisions should be included in the FS report. This information should include, but not be limited to, boring logs and analytical laboratory reports. Assessment of the quality and character of this information by the MEDEP and public is necessary prior to remedial activities.

3.) Response to Itemized General Comment 2.), Page 2-8, Para 4

"Alternatives 1 and 6 address groundwater through natural attenuation as assessed via long-term groundwater monitoring." ... "Alternatives 4A, 4B, and 4E address groundwater through partial source removal thereby reducing continued leaching of contaminants to groundwater; the remainder of contamination would be addressed through natural attenuation."

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[1]McLaren/Hart Environmental Engineering Corp., Draft RCRA Facility Investigation Report, Portsmouth Naval Shipyard, Kittery, Maine, July 17, 1992.

Natural attenuation implies that contamination is reduced to non-hazardous levels through natural processes (e.g. biodegradation). This would not apply to Pb contamination. Removal of Pb from contaminated areas requires redistribution by leaching or suspension of contaminated soil particles, then transport via groundwater flow to the Piscataqua River.

Response to MEDEP Comments Dated 5/25/95
JILF - SWMU #8
Mercury Burial Sites - SWMU #9
Draft On-Shore FS Report
NSY Portsmouth, Kittery, Maine

Specific Comments

1.) Response to Comment 15.) Maine Secure Cap, Clay vs. Synthetic Membrane, Page 4-14, Para 3

"During the May 17, 1995 meeting among the regulatory agencies and the Navy, the MEDEP approved replacing the State-specified clay layer with a synthetic membrane due to the lack of clay regionally available. the Navy is in agreement. The comment suggests a combination of clay and a synthetic membrane. Please clarify the new requirements (layers and thicknesses) and the FS Report text and costing will be revised accordingly"

There appears to be some misunderstanding here. MEDEP did not approve replacing the state-specified clay layer with a synthetic membrane. MEDEP only mentioned that at another federal facility located in the State, the two feet of recompacted clay required under Maine's Solid Waste Management Regulations for a secure landfill was replaced by a geocomposite liner. No such approval was granted to Portsmouth Naval Shipyard. Furthermore, at this time, a preferred remedial alternative has not been chosen for the JILF. If the Navy would like to review the State's Solid Waste Regulations, please refer to the State of Maine's Solid Waste Management Regulations, Chapters 400-406, 408 & 409. The MEDEP has provided copies of these regulations to the Navy.

2.) Response to Comment 17.) Monitoring, Page 4-14, Para 8

"All JILF alternatives provide for groundwater monitoring to determine the effectiveness of remedial actions. Specific monitoring wells will be determined in the design phase. In, addition, off-shore monitoring, if necessary, is included in all of the capping alternatives for the JILF."

This statement suggests that off-shore monitoring may only be necessary if capping is the remedial alternative selected for the JILF. Some off-shore monitoring will be necessary regardless of which remedial option is selected. The extent of off-shore monitoring required to assess the effectiveness of remediation should be based on the option selected.

(i.e. Less monitoring may be required for a remediation which is more protective to the off-shore environment.)

Response to MEDEP Comments Dated 6/20/95
On May 17, 1995 FS Report Meeting at NSY Portsmouth
Draft On-Shore FS Report
NSY Portsmouth, Kittery, Maine

Specific Comments

1.) Response to Comment 5.) Preliminary Alternative for DRMO, Page 7-4, Para 5

"Hot spot remediation of saturated soil and groundwater remediation, are considered as contingency actions that would be sufficient to address contamination below the groundwater table at the DRMO, if it is determined that contaminants are migrating off site and are having an adverse impact on the off-shore environment."

More information is required to assess the effectiveness of hot spot removal at the DRMO in preventing off-site migration of contaminants. At a minimum this information should include a sampling program design for determining hot spot locations and the methods of determining adverse impacts to the off-shore environment.

2.) Response to Comment 5.) ARARS, Page 7-5, Para 2

MEDEP is reviewing the ARARS section of the FS Report. We will submit any comments within the next few weeks. However, if any substantive changes are made to the ARARS section in the draft final FS Report, the MEDEP may submit additional comments.

Response to MEDEP Comments Dated 6/28/95
Battery Acid Tank - SWMU #10
Former Waste Oil Tanks - SWMU #11
Acid/Alkaline Drain Tank - SWMU #21
Fuel Oil Spill Area at Berth 6 - SWMU #27
JILF Impact Area - Former Child Dvpt. Center (CDC)
DRMO Impact Area (Quarters S, N, & 68)
Draft On-Shore FS Report
NSY Portsmouth, Kittery, Maine

Specific Comments

1.) Response to Battery Acid Tank No. 24 - SWMU #10 - Comment 3.) 5.2.4.1 Alternative 1: Institutional Controls/Asphalt Repair, Page 8-4, Para 5

"Information (previously requested form the Navy and the MEDEP) regarding the volume of soil removed [at SWMU #10] and the results of sampling is not available."

In previous responses the Navy has indicated "it was believed that the previous source removal that occurred (tank plus soils [SWMU #10]) was an effective remedial action." However, based on the lack of information noted above it is impossible to determine the effectiveness of the removal. Additional work performed at SWMU #10 should consider the area in the vicinity of the former battery acid tank to assess the effectiveness of the tank and soil removal.

2.) Response to Comment 4.) 5.2.4.4 Alternative 4: Consolidation with DRMO, Page 8-4, Para 8

"No revisions to the report are planned. Consolidation at the DRMO for treatment or disposal is considered under Alternative 4."

The DRMO is located on a fill area with a groundwater aquifer which is directly influenced by tidal cycles in the Piscataqua River. The MEDEP does not consider this area as desirable for the consolidation of contaminated soil transported from SWMU #10, regardless of prior treatment.

3.) Response to General Comment 8.) Former Waste Oil Tanks Nos. 6 and 7 - SWMU #11, Page 8-7, Para 1

"As stated in the FS Report, if groundwater remediation does occur at the JILF, "then it is unreasonable to justify remediation of a lesser contaminated area (i.e. diesel fuel), particularly when SWMU #11 groundwater flows to SWMU #8."

Investigative work indicates that groundwater contamination at SWMU #11 is not limited to diesel range hydrocarbons[2]. Actual or potential impacts to the off-shore environment by SWMU #11 derived contaminants should be considered when assessing remedial alternatives for the JILF.

4.) Response to Specific Comment 10.) 2.4.5 SWMU #11 - Former Water Oil Tanks Nos. 6 and 7, Page 8-8, Para 5

"A copy of the updated "MEDEP, Procedural Guidelines for Establishing Standards for the Remediation of Oil Contaminated Soil and Groundwater in Maine" is requested and a discussion of these guidelines will be included in the ARARs section, if these guidelines are considered to be TBC guidelines. The guidelines were believe to be internal for MEDEP use only rather than a public guidance document. Please clarify."

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[2]Halliburton NUS, RCRA Facilities Investigation (RFI), Data Gap Report for Portsmouth Naval Shipyard, Kittery, Maine, January 1995.

A copy of these guidelines was provided to the Navy and Halliburton NUS on September 22, 1995 at a technical meeting held in Kittery, ME. These guidelines are intended for use by the MEDEP and the general public. Please let me know if you need any additional copies.

5.) Response to Specific Comment 14.) 7.5 SWMU #11 - Former Waste Oil Tanks Nos. 6 and 7, Page 8-11, Para 3

"Text will be corrected as follows; "The RFI Data Gap analytical results indicated that no Media Protection Standards for organics in groundwater were exceeded.""

This response is not accurate. The benzene MPS was exceeded for groundwater collected from direct drive point WOT-DP22. In addition, free product was encountered at WOT-DP22.

6.) Response to Comment 15.) Acid/Alkaline Drain Tank - SWMU #21, Page 8-12, Para 1

"Available information does not indicate that groundwater has been impacted or has the potential to be impacted by this SWMU."

Based on discussions with the Navy at the September 22, 1995 technical meeting, the MEDEP understands that groundwater will be evaluated at this SWMU as part of a larger hydrogeologic investigation proposed for the West Timber Basin area. Please clarify if this understanding is not correct.

7.) Response to General Comment 19.) Fuel Oil Spill Area at Berth 6 - SWMU #27, Page 8-16, Para 2

"Based on the meeting minutes from the 6/22/95 meeting among the Navy and regulatory agencies, it is under consideration to transfer SWMU #27 from the CERCLA program to the Oil Terminal Facility, as currently recommended in the FS Report."

On October 11, 1995 a meeting was held between PNSY personnel (Bill Lott, Ken Plaisted, Fran Endyke), Northern Division (Jim Conroy, Mary Hunt), Stearns and Wheler (Christopher Nichols, Larry Hineline), and the MEDEP (Rick Kaselis, Richard Heath) regarding finalization of the Fuel Farm Hydrogeologic Investigation. Based on this meeting the MEDEP understands the following:

- SWMU #27 will not be included with the Fuel Farm investigation/remediation; and
- Bennett Engineering has been contracted by the Navy to compile an inventory of all active and inactive piping associated with the Fuel Farm, provide testing and

maintenance plans for active piping, and propose methods for the proper removal of abandoned piping.

Inorganic and organic soil and groundwater contamination associated with SWMU #27 is currently under consideration by the Navy, EPA, and the MEDEP as part of the Installation Restoration Program.

8.) Response to Specific Comment 32.) 6.2.7.2 SWMU #27 - Fuel Oil Spill Area at Berth 6, Alternative 2: Soil Off-Site Disposal, Page 8-22, Para 9

"Note that the report does not suggest that remediation is unnecessary in the area outside of SWMU #27, merely that the entire area is being investigated as part of another investigation (at Oil Terminal Facility, which is primary source) and that outlying contamination at the Oil Terminal Facility (which includes SWMU #27) would be addressed separately."

See previous Comment 7.). Conclusions presented in the Tank Farm Hydrogeologic Investigation[3] indicate petroleum contamination at SWMU #27 is related to ruptured and leaking piping, not from releases associated with the tank farm. Remediation of petroleum contaminated soils outside of SWMU #27 in the vicinity of Berth will not be addressed as part of the Oil Terminal Facility investigation/remediation.

9.) Response to Comment 37.) Identification of Remedial Technologies for Soil, Site-Specific Considerations, JILF Impact Area - Former CDC, Page 8-24, Para 8

Referring to a soil MPS exceedance for lead: "Lead concentration at SS-107 is likely an anomaly or from possible sources as identified in the RFI Report (possible sources may include contaminated fill material that may have foreign material in the vicinity of the sample, additives found in pesticides and possibly battery storage). The JILF is not a likely source. In addition, this sample was the only exceedance for lead (lead concentrations were generally below 150 mg/kg) and was located outside the Former CDC fence line."

The fact remains that the Pb MPS was exceeded identifying an area of potential risk.

10.) Specific Comment 39.) 6.2.8.1 JILF Impact Area - former Child Development Center (CDC), Alternative 1: Institutional Controls, Page 8-25, Para 4

No response provided.

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[3]Stearns and Wheler, Hydrogeologic Investigation, Portsmouth Naval Shipyard, Kittery, Maine, July 1995.

11.) Response to General Comment 40.) Quarters S, N, & 68 - DRMO Salvage Yard Impact Area, Page 8-26, Para 3

"It is unlikely that the elevated arsenic concentrations are from DRMO related contamination and may be a result of contamination from another source or may be isolated elevated concentrations."

Regardless of the source, exceedance of an MPS identifies areas of potential risk which should be considered under remedial alternatives.

12.) Response to Specific Comment 46.) 5.2.9 Alternative 4: Consolidation with DRMO, Page 8-28, Para 6

"No revisions to the report are planned. Consolidation at the DRMO was considered as an alternative for the DRMO Impact Area as both have lead as the main contaminant of concern and the sites are adjacent."

See Comment 2.) under this section.

If you have any comments or questions, please call me at 207-287-2651. Thank you.

Sincerely,

Nancy Beardsley

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