DEPARTMENT OF THE NAVY
PORTSMOUTH NAVAL SHIPYARD
PORTSMOUTH, N. H. 03804-5000

IN REPLY REFER TO:

April 17, 2002

MEMORANDUM

FOR THE MEMBERS OF THE RESTORATION ADVISORY BOARD CERCLA REMEDIAL ACTION PROGRAM, PORTSMOUTH NAVAL SHIPYARD, KITTERY, MAINE

Enclosed please find the draft minutes from the February 7, 2002 Restoration Advisory Board meeting for your review and comment.

Comments are requested by May 8, 2002. You may provide your comments to me at (207) 438-3830.

Sincerely,

Kenneth Raymond for

Ken Plaisted
Navy Co-Chairman
Restoration Advisory Board

Distribution:
Doug Bogen
Peter Britz
Jeff Clifford
Alan Davis
Michele Dionne
Carolyn Lepage
Mary Marshall
Phil McCarthy
Jack McKenna
Diana McNabb
Onil Roy
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James Horrigan
EPA (M. Cassidy)
NOAA (K. Finkelstein)
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USFWS (K. Munney)
NHF&G (C. McBane)
MEDEP (I. McLeod)
EFANE (F.Evans)
COMSUBGRU TWO (R. Jones)
Tetra Tech NUS (D. Cohen)
PNS (Codes 106, 106.3, 106.3R, 100PAO, 105, 105.5, NRRO)

RESTORATION ADVISORY BOARD MEETING
PORTSMOUTH NAVAL SHIPYARD
BEST WESTERN, PORTSMOUTH, NH
February 7, 2002

The meeting began at 7:00 p.m. and ended at 8:55 p.m. Restoration Advisory Board (RAB) members at the meeting included

- RAB community members Doug Bogen, Jeff Clifford, Alan Davis, Michele Dionne Jim Horrigan, Phil McCarthy, Jack McKenna, Diana McNabb, Onil Roy, and Roger Wells.
- Navy RAB member Fred Evans.
- Regulatory representatives Meghan Cassidy (EPA) and Iver McLeod (MEDEP).
- Natural Resource Trustee Don Card (DMR).

Community members Peter Britz and Mary Marshall, and Navy member Ken Plaisted were absent.

Guests at the RAB included

- Jeff Hoyt, Marty Raymond, and Alan Robinson from Portsmouth Naval Shipyard.
- Dawn Hallowell from MEDEP and Carl Baxter and Paul Heirtzler from New Hampshire Department of Environmental Services (NHDES).
- David Burdick (UNH), Kayleeń Jalkut (TtNUS), Carolyn Lepage [Technical Advisory Grant (TAG) consultant for the Seacoast Anti-Pollution League (SAPL)], and Dan Sullivan (FWENC).
- Guest Speakers Jim Conroy (USCOE, Nebraska) and Judi Johnston (USCOE, New England District).

INTRODUCTION

Doug Bogen, Community RAB Co-Chair, welcomed the RAB and introduced the primary topic of the evening, the draft Remedial Design for Operable Unit 3 (OU3).

STATUS OF WORK

The last RAB meeting was in November 2001. The January 31, 2002 RAB meeting was rescheduled for this evening due to inclement weather.

Fred Evans provided a handout with the status of OU1, OU2, OU3, OU4, OU6, and OU7 and Sites 30, 31, and 34. Fred announced that follow-up comments have been received on the Site 30 (Building 184) Draft Report Subfloor Investigation. He also announced the following due dates:

- Comments on the OU3 Draft Phase I Work Plan are due by February 19, 2002.

- Comments on the OU3 Technical Memorandum on waste consolidation are due by February 19, 2002.

- Comments on the remainder of the OU3 Draft Remedial Design are due by March 5, 2002.

- Comments on the draft OU4 Baseline Report are due by February 12, 2002.

REGULATOR UPDATES

EPA --- Meghan Cassidy discussed recent EPA activities with the RAB, including technical meetings and conference calls that were held to discuss the following:

- Draft Data Quality Objectives for Site 32, Topeka Pier Remedial Investigation.

- Waste consolidation at OU3, Site 8, Jamaica Island Landfill.

- Data Quality Objectives for the seeps at OU6.

Currently, EPA is focusing on review of the OU3 Draft Remedial Design, the Draft Phase I Work Plan and the Technical Memorandum on waste consolidation. Review of the wetland design has been assigned to Yoon-Jean Choi, of EPA.

MEDEP --- Iver McLeod announced that MEDEP is also conducting a review of the wetland design for OU3. He introduced Dawn Hallowell, from the Portland, Maine office of MEDEP, and said she would be very involved in the review of the wetland design for OU3.

DRAFT CONSOLIDATION EVALUATION AND DESIGN FOR OPERABLE UNIT 3 (OU3)

Jim Conroy, of USCOE, Nebraska, presented some details of the 35% design phase for OU3:

- Construction phasing
- Landfill cover overview
- Waste consolidation

The following points were highlighted during the discussion of construction phasing:

PHASE I

The following activities are needed in Phase I of the construction:

- Remove landfill waste from the portion of the landfill north of Parker Avenue, by Jamaica Cove.

- Relocate underground utilities outside the limits of landfill waste.

- Repair Sullivan Point Pier so that Foster Wheeler Environmental Corporation (FWENC) can bring in clean fill via barge. Barge delivery is expected to reduce truck traffic on the yard and in neighborhoods.

- Install a new storm drain line to divert water currently flowing through the JILF. This activity requires excavating outside the boundaries of the existing landfill.

PHASE 2

Phase 2 of the construction includes the bulk of the work necessary to complete the grading, landfill cover, and shoreline protection.

The following points were highlighted during the discussion of the landfill cover components.

- After various components of the landfill cover were reviewed, the presentation turned to the benefits of using manufactured products rather than natural soil for several of the layers.

- Manufactured products weigh less, install more quickly, and yield better quality control than natural soil.

In answer to a question regarding the estimated life of the synthetic materials, it was explained that, based on freeze/thaw and wet/dry studies, the estimated life is hundreds of years. In answer to a question regarding consideration of alternative materials for the gas vent layer, the Navy indicated that none were considered.

According to a RAB representative, tire chips and processed glass aggregate have been used in cover components in the state of Maine. The Navy indicated that the goal for the JILF cover is to keep this layer thin and light; this goal would not be met by using tire chips or processed glass aggregate. According to Meghan Cassidy, EPA does not yet accept use of tire chips in landfill cover components, but this may change.

Landfill Cover

The following points were highlighted during the course of the discussion on the landfill cover design elements:

Many elements need to be taken into consideration during design of a landfill cover:

- Settlement analysis –Steps must be taken to maintain positive flow so water runs off to a drainage layer.

- Slope and seismic stability analyses – The goal is to have a 2 to 3% slope on the cover and a 4:1 side slope with an open surface channel (ditch).

- Hydrologic evaluation and design – Cover design must meet 25-year storm event requirements to avoid erosion.

Waste Consolidation

The Navy evaluated the removal and consolidation of waste in the vicinity of the former Mercury Burial Site II (MBII) and in the area of the landfill near Jamaica Island Cove. A brief summary was provided of the evaluation of the MBII area. The discussion focused on the consolidation options for the Jamaica Cove area.

The Navy is not recommending to consolidate waste in the MBII area because of several significant concerns:

- Need for extensive shoring to protect existing roadways and prevent collapse of sidewalls as a large volume of landfill waste is removed.
- Presence of asbestos in the landfill waste.
- Operational disruptions.
- Overall cost.

The Navy is not opting to remove and consolidate waste at MBII. It will be less costly to reroute the flow from the drainage pipe to a ditch before the flow arrives at the landfill. The old pipe will be grouted in place. In answer to a question, whether the Navy knows if the old pipe has been compromised, the Navy indicated that this is not known, but the Navy plans to attempt a camera study of the old pipe to see the condition of the pipe. The Navy could consider reuse of any portion of the pipe that is in adequate condition for reuse. Relining of the pipe may be necessary.

The Navy evaluated three options for managing the buried waste in the Jamaica Cove area:

- Option 1 – Install a cover over the landfill surface that will prevent contact with contaminated soil/waste and minimize infiltration of water through the cover to the waste. This option has short-term effectiveness.
- Option 2 – Excavate and consolidate the waste under the hazardous waste cover that will be constructed south of Parker Avenue. A salt marsh wetland would be constructed in its place. The option has both short- and long-term effectiveness. Reduces the amount of waste in contact with tidally influenced groundwater and it restores the area to a more natural environment.
- Option 3 – This option is similar to Option 2, but the environment will be returned to a tidal mudflat habitat. The option has similar short- and long-term effectiveness.

During the course of the discussion on Option 2 and Option 3, the following points were highlighted:

- Approximately 70,000 cubic yards of waste would be removed to an elevation of 1 foot below the original tidal mudflat.

- The area would be backfilled with clean fill to establish a salt marsh or a tidal mudflat.

- Shoreline revetment (with filter fabric beneath it) would be placed at the entrance of the salt marsh. Revetment would dissipate wave action but would not be designed to prevent storm damage to the marsh. A revetment would not be installed in the tidal mudflat wetland.

A sediment erosion control plan would be implemented during construction (i.e., turbidity curtain) to minimize migration of fine materials during excavation and construction activities. The curtain would rise and fall with the tide. A similar control was used at McCallister Landfill, Naval Station Newport, Newport, Rhode Island.

Salt Marsh Wetland (input by Judi Johnston, USCOE)
The following points were made by Judi Johnston about the advantages and disadvantages of Option 2:

- Challenging to create; may take several years to establish.

- Would be composed of a low marsh, high marsh, and non-tidal zone. Low marsh is regularly flooded. High marsh is above the low marsh and inundated every other week. The non-tidal zone is not flooded and would be planted with salt tolerant trees and shrubs.

- A tidal channel would be excavated to promote flushing of the marsh during high tide and would allow drainage during low tide. Currently, the depth to bedrock is not known.

- Aerial photographs and historical maps indicate portions of the area were either mudflats or salt marsh.

- Creation of a salt marsh would benefit fish and wildlife species associated with the coastal ecosystem.

Tidal Mudflat Wetland (input by Judi Johnston, ACOE)

The following points were made by Judi Johnston about the advantages and disadvantages of Option 3:

- Open to water. No berm. High marsh habitat may build up on the fringes of the tidal mudflat over time.

- More representative of the original habitat.

- Would also be composed of three zones: Zone 1 would be a mudflat composed of sands and fines; Zone 2 would consist of sand and gravel; Zone 3 would be planted with salt tolerant trees and shrubs.

- It would be necessary to excavate 5,800 square feet of existing tidal mudflat habitat to connect it to the interior of the cove so that drainage occurs. The impact would be temporary, because the area would recolonize over time.

- Tidal mudflat would provide good habitat for invertebrates

DISCUSSION/Q&A

- There are no guarantees the wetlands reconstruction would work. Much luck is needed to control factors that allow a salt marsh to develop over time. Does USCOE have a preference for a particular option? No, either should work. A salt marsh habitat is nicer to look at but it does not necessarily function better. In the end, the facility may end up with both habitats.

- Can the channel in the salt marsh wetland option close off? Yes. It must be maintained and kept open until future plant material takes hold, thereby keeping it open. Trying to prevent water from ponding up in the channel will be difficult. It would be designed so that water goes in and out fully with each tidal cycle.

- Can you make the stone berm porous? Most of the berm would be natural material. It needs to be high enough to dissipate wave energy. The permeability of the bank is not critical. Water is expected to come into the channel and spill over the top of the berm and then leave the area as the tide goes out.

- Is boat traffic an issue? No.

- What is the cost for each option? Option 1 is the least expensive and would cost approximately 1 million dollars. Options 2 and 3 would cost approximately 2.1 million and 1.9 million dollars, respectively.

- Where would the clean fill come from? Off yard, brought in by barge. A provider has not been selected at this time. According to Meghan Cassidy (EPA), the Navy would be required to show that the fill passes all chemical testing and size requirements.

- If a provider of fill has not been selected, the Navy may want to consider using spoils from a site in York for fill. The spoils from this site were dredged from the 1950s to the 1970s and are just sitting around. They should not be contaminated but, then again, no testing has ever been conducted.

- All details pertaining to the design have not been figured out. This is only the 35% design phase report. It gives us enough information to get an idea of where we are going with the design. The 95% design report will provide more information. Comments and responses to comments will be generated for the 95% design report.

- How effective is the turbidity curtain? Very effective at McCallister Point LF. You can specify the size of the openings you want and you can even opt for a commingled permeable and non-permeable curtain.

FUTURE MEETINGS

The next RAB meeting is scheduled for Thursday, March 21, 2002. The location has not yet been selected. The main topic will be continued discussion of the Draft Remedial Design for OU3, even if the 95% design report is not ready.

The RAB had no additional questions or topics for discussion. The meeting was adjourned at 20:55 hrs. Many meeting participants remained to review historical photographs and maps.