



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

N00102.AR.000549  
NSY PORTSMOUTH  
5090.3a

IN REPLY REFER TO:

April 17, 1998

MEMORANDUM

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

The next RAB meeting will be held on Thursday, April 23 at 7 p.m.  
at the Day's Inn in Kittery, Maine. We will present an update on  
March 5, 1998 technical meeting where possible interim actions for  
the off-shore were discussed.

Your participation is greatly appreciated. If you are unable to  
attend the meeting, please call me at (207)438-3830. I look  
forward to seeing you again.

Sincerely,

Ken Plaisted  
Navy Co-Chairman  
Restoration Advisory Board

Distribution:

Juanita Bell	Doug Bogen	Jeff Clifford
Michele Dionne	Eileen Foley	Mary Marshall
Phil McCarthy	Jack McKenna	Guy Petty
Onil Roy	Peter Vandermark	Carolyn Lepage

EPA Region I (M. Cassidy)  
MEDEP (Iver MacLeod)  
NOAA (K. Finkelstein)  
MEDMR (D. Card)  
NHFG (J. Nelson)  
USFWS (K. Munney)  
North Div (F. Evans)  
COMSUBGRU TWO (R. Jones)  
Portsmouth Naval Shipyard (Codes 106, 106.3, 106.3R, 100PAO, 105,  
105.5, NRRO)



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

IN REPLY REFER TO:

March 6, 1998

MEMORANDUM

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

The RAB meeting which was scheduled for March 19, 1998 is postponed until April 23, 1998. The Navy is working on a budget submission for Navy Headquarters. The April RAB meeting will be at the Day's Inn in Kittery. I apologize for any inconvenience this may cause.

Sincerely,

A handwritten signature in cursive script that reads "Ken".

Ken Plaisted  
Navy Co-Chairman  
Restoration Advisory Board

Distribution:

Juanita Bell  
Michele Dionne  
Phil McCarthy  
Onil Roy

Doug Bogen  
Eileen Foley  
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Peter Vandermark

Jeff Clifford  
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Portsmouth Naval Shipyard (Codes 106, 106.3, 106.3R, 100PAO, 105,  
105.5, NRRO)



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

IN REPLY REFER TO:

May 11, 1998

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 April 23, 1998,  
Restoration Advisory Board meeting for your review and comment.  
Comments are requested by June 5, 1998. You may provide your  
comments to me at 207-438-3830.

Sincerely,

*Ken*

Ken Plaisted  
Navy Co-Chairman  
Restoration Advisory Board

Distribution:

Juanita Bell  
Doug Bogen  
Jeff Clifford  
Michele Dionne  
Eileen Foley  
Carolyn Lepage  
Mary Marshall  
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MEDEP (I. McLeod)  
NORTHDIV (F. Evans)  
COMSUBGRU TWO (R. Jones)  
Brown & Root Environmental (B. Horne, L. Klink)  
PNS (Codes 106, 106.3, 106.3R, 100PAO, 105, 105.5, NRRO)



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

IN REPLY REFER TO:

June 12, 1998

MEMORANDUM

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

Enclosed please find the minutes from the April 23, 1998, Restoration  
Advisory Board meeting which have been revised based on verbal  
comments received from the Seacoast Anti-Pollution League's Technical  
Assistance Grant advisor, Lepage Environmental Services, Inc..

Sincerely,

Ken Plaisted  
Navy Co-Chairman  
Restoration Advisory Board

Distribution:

Juanita Bell  
Doug Bogen  
Jeff Clifford  
Michele Dionne  
Eileen Foley  
Carolyn Lepage  
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PNS (Codes 106, 106.3, 106.3R, 100PAO, 105, 105.5, NRRO)

cc: File PNS Meetings  
Deb Cohen

**RESTORATION ADVISORY BOARD MEETING  
PORTSMOUTH NAVAL SHIPYARD  
DAYS INN, KITTERY, MAINE  
APRIL 23, 1998**

The meeting began at 7:14 pm and ended at 8:47 pm. Community members attending were: Doug Bogen, Jeff Clifford, Michele Dionne, Guy Petty, and Johanna Lyons and Phil McDonough representing Peter Vandermark; regulatory member Iver McLeod, MEDEP; and Navy members Ken Plaisted and Fred Evans. Others attending were Marty Raymond and Alan Robinson (PAO) from the Shipyard. Carolyn Lepage, the TAG technical consultant was also present. Guests attending were John Trepanowski and Garth Glenn, Brown & Root's CLEAN program managers, and Debbie Cohen, from Brown & Root's Pittsburgh office. Don Card, Eileen Foley, Mary Marshall, and Phil McCarthy called to say they would not attend. Juanita Bell and Onil Roy were absent.

### INTRODUCTION

Ken Plaisted, the Navy Co-Chair, welcomed the RAB and reviewed the agenda. Ken mentioned the two work plans for Sites 10, 29, 30, 31, and 32 were finalized as well as the Site Screening Plan work plan. He also mentioned an off-shore technical meeting was held on March 5, 1998 which is the subject of this evening's presentation.

Sherry Goodman, the Assistant Secretary of the Navy, requested that the Naval Facilities Engineering Command conduct a study on whether Installation Restoration (IR) cleanups are focusing on risk-based (common sense) decisions, innovative technologies, and long-term monitoring. Subsequently, NAVFAC hired the National Academy of Sciences to convene a panel to travel around the country collecting this information. Last week, Marty Raymond and Fred Evans made a presentation to the panel on PNS IR activities. Ultimately, the National Academy of Sciences will put together a report of the findings.

### STATUS OF WORK

Fred Evans summarized the status of work:

The final work plans for Sites 30, 31, and 32 and for Site 29 and Site 10 were issued. Field work will begin in June 1998.

The Site Screening Plan for new sites was completed.

On April 28, 1998, a technical meeting is scheduled to review the responses to comments on the revised draft final off-shore Ecological Risk Assessment. On May 21, 1998, discussions will begin on the Navy's proposed interim off-shore monitoring plan. The interim actions will be discussed during tonight's presentation.

- A draft of the groundwater summary report will be issued in June 1998.

Responses to comments on the Phase II Fate and Transport Modeling work plan will be released in June 1998.

The Navy will issue a draft report in May 1998 on the IEUBK Model (lead risk assessment) for the DRMO Impact Area.

A technical memo is due in September 1998 on the risk assessment update for OU 3.

#### REGULATOR UPDATE

Meghan Cassidy was unable to attend.

Iver McLeod provided a list of documents that MEDEP has reviewed/received since the last RAB meeting. He summarized MEDEP issues:

Final documents were received for the Site Screening Plan Process and Site Screening work plans (for Sites 30, 31, and 32 and for Sites 29 and 10). No comments were necessary.

MEDEP is reviewing the groundwater data package and the seep/sediment data package for Round 10 for completeness.

Comments were not necessary on the revised groundwater data package for Round 9.

MEDEP provided follow-up comments on the Phase II modeling work plan.

MEDEP submitted follow-up comments on the off-shore ERA response to comments. These issues will be discussed at the April 28, 1998 technical meeting.

Since the last RAB meeting, the project managers (Fred, Marty, Meghan, and Iver) have met twice, have conducted conference calls five times, and have attended one technical meeting.

Comment: What do you discuss in the conference calls?

Response: Usually issues are covered like the status of reports and project manager availability for meetings. It is also an opportunity to clarify technical comments that need to be responded to in writing.

#### SCHEDULES

Fred reviewed the draft Operable Unit schedules. OU 4 was not included.

Comment: What happens to the schedule when one document is delayed? Are all the subsequent dates changed by that same increment?

Response: If the document is a secondary document, the primary document still needs to be presented on time. However, many of these activities are sequential. For instance, we cannot respond to comments that have not been received. Once the Federal Facilities Agreement (FFA) is signed, the Navy could be subject to stipulated penalties for failure to meet a primary document deadline.

Fred stated he needs to work with the EPA and MEDEP on dealing with the implementation schedule for OUs 2 and 3. Currently, work on both is slated for the same time, but limited access/egress on the island may preclude work from being conducted simultaneously.

Comment: How do you intend to prioritize the OUs?

Response: Although the answer depends on the final cleanup decision, I would envision that work at OU 2 would wait until activities at OU 3 are completed.

Comment: What are the other constraints? Funding? Can you review documents-from both OUs at the same time?

Response: Yes. Documents can be reviewed simultaneously. However, the FFA requires that a proposed plan be issued within 30 days after finalizing the Feasibility Study, so we would have to hold up issuing the JILF FS. The FFA also mandates that site work begin within 15 months of the date a record of decision (ROD) is signed.

Comment: If truck traffic is the principal factor in delaying the JILF cleanup, would you consider using water transportation?

Response: Some years ago we had to move material from one side of the Shipyard to the other by water. That is a possibility. Trains use the same bridges as the trucks.

Fred discussed a matrix Marty prepared in response to a request by a community member. It is an attempt to more clearly depict where each IR site is in the cleanup process.

Comment: Meghan was going to look at the human health risk assessment (HHRA) for OU 3. Do you know the status of that effort?

Response: The Navy has tasked Brown & Root to undertake that activity. Apparently significant changes have been made by EPA to HHRA requirements (regulatory guidance updates have been issued) since the original HHRA for OU 3 was conducted, so the review is more involved than we anticipated. We expect to have the HHRA update for OU 3 completed by August or September 1998. Obviously it is a key piece needed to be completed before proceeding with the FS.

Comment: Has the HHRA review delay been reflected in your schedule? How long could that push off the FS?

Response: No. It is not in the April 22, 1998 schedule. However, the risk assessment may not be the critical path. Modeling may be the critical path. We are hoping that Brown & Root can cut back that August/September 1998 estimate. Much depends on what the new numbers show.

Comment: I'm comparing your schedule to Iver's. Are dates slipping because of the back and forth caused by comment and response letters?

Response: Some groundwater modelling activities have started even though all the comments have not been resolved. Risk scenarios and a background evaluation for the risk assessment are expected out next week.

#### PRESENTATION ON OFF-SHORE TECHNICAL MEETING

Fred stated that the March 5, 1998, technical meeting included representatives from the Navy, EPA, MEDEP, NOAA, Fish and Wildlife Service, and the TAG advisor, Carolyn Lepage. The purpose of the meeting was to review the off-shore investigations and identify interim off-shore actions that can proceed while the studies to support an off-shore FS continue. He used a series of view graphs to support the presentation.

Off-shore investigations include sampling (in 1991 and 1993, and in 1996/1997 for seep and sediment data); conducting risk assessments (off-shore HHRA, a comparison of Phases I and II off-shore HHRA data, and an ecological risk assessment (ERA)); conducting fate and transport modelling (Phase I with addendum and Maine's geochemical modeling); and initiating on-shore investigations (data packages for the 1996/1997 seep/sediment sampling have been issued).

Based on this list of documents, the Navy identified potential off-shore risks. The off-shore HHRA determined that any risk to people consuming seafood from this area is comparable to eating seafood from background locations. (The Navy still needs to obtain EPA and MEDEP human health risk assessor concurrence on this statement). Risks do exist for some of the ecological receptors (creatures that live on or in the sediment, fish, eelgrass, saltmarsh). The view graphs include a matrix that shows which locations present risks for which receptors from which media.

Having established the off-shore risks, the next step was to identify the remedial action objectives (RAOs). RAOs provide chemicals of concern, exposure routes and receptors, and a definition of an acceptable chemical level for each exposure route. Site-specific RAOs were identified (no RAO is needed to protect avian predators because a negligible risk was determined from investigating the food they consume). RAOs include reducing or eliminating effects to the ecological receptors (benthic, epibenthic, pelagic, eelgrass, and salt marsh) from potential chemicals of concern by exposure in the affected media (sediment and surface water). Sediment RAOs for benthic, epibenthic, eelgrass, and salt marsh ecological receptors and surface water RAOs for pelagic, epibenthic, eelgrass, and salt marsh receptors are required.

Comment: Does that mean that eating seafood is all right compared to other areas?

Response: Yes, but ecological risks do exist.

Comment: The view graph indicates the RAO could reduce or eliminate effects. Is it an "either/or" situation?

Response: Yes. The RAO is general at this point. The wording still needs to be refined.

After the RAOs were determined, the group brainstormed what General Response Actions were possible without consideration of cost or feasibility. These include dredging; containment (capping or restoring); no action/limited action (no further action or no current action, with monitoring); institutional controls; and treatment (in place or off site). Other than no action (which is not possible since potential risks were identified) off-shore monitoring would be a part of each action. It became clear that monitoring could become an interim action while going through the FS process.

The next steps are to finalize the off-shore ERA (a technical meeting is scheduled for Tuesday, April 28, 1998 to discuss outstanding comments), develop an interim off-shore monitoring plan (Brown & Root has been tasked), and develop a schedule for the interim proposed plan and ROD. In addition, the Navy needs to determine whether eelgrass restoration is a type of containment; follow up with the EPA's and MEDEP's risk assessors about the off-shore HHRA RAOs; obtain additional eelgrass study information; and begin the off-shore FS by developing preliminary remediation goals and final RAOs.

Comment: Can you begin the interim action right away?

Response: Yes, it is budgeted. We will begin the discussion about what the monitoring plan should contain at the May 21, 1998 meeting.

Comment: At a previous meeting, you mentioned a phrase that indicated that some work could be done to the Piscataqua River as part of the off-shore cleanup. Could that become part of the interim action?

Response: We discussed natural resource effects at the March 5, 1998, technical meeting but it is not envisioned as part of the interim action. If we decided that constructing an eelgrass bed was a means of containment, then the restoration as a remedial option would be part of the CERCLA process. Otherwise, it may be considered as part of National Resources Damage Assessment (NRDA) activities, which are covered under a different regulation than CERCLA (and therefore are not under the Navy IR program). Under NRDA, NOAA and the Fish and Wildlife Service would assess whether the resource area was damaged. We cannot do what you are suggesting under CERCLA because NOAA and the Fish and Wildlife Service do not review the site until after the fact.

Comment: The Bath Iron Works expansion would effect a wetland. That issue must be addressed up front.

Response: The expansion's impact is being reviewed under NEPA, not CERCLA. The navy will get more information on NRDA for the RAB.

Comment: What is the delay in the off-shore HHRA issue?

Response: The Navy needs EPA and MEDEP concurrence. The MEDEP does not have its own risk assessor now (but will soon). EPA has a limited number of risk assessors. The Navy recently lost two of its risk assessors.

Comment: Do you have a schedule for the proposed plan?

Response: No, not yet. Establishing a proposed plan/ROD schedule for the interim action is a high priority. I hope that by this time next year we will already be monitoring or at least have an interim ROD signed.

Comment: What is this eelgrass study?

Response: Doug Bogen indicated Fred Short has done some eelgrass restoration; one successful project was for the Port Authority extension in Inner Cutts Cove by Nobles Island.

Comment: There is no risk to the birds?

Response: By looking at their prey and at the area they come from, we have determined there is no specific impact from the Shipyard.

Comment: Have you examined any of the literature on impacts to birds?

Response: There are probably several sources in the estuary that could provide contaminants that could harm them. The Shipyard is on an island at the mouth of the river; several contaminants are coming from upstream sources. Our study determined the most likely place to find Shipyard-generated contamination was in sediments closest to the Shipyard (listed as the areas of concern on the view graph table): Clark's Cove; Sullivan's Point, DRMO, Dry Docks, Back Channel, Jamaica Cove, and Portsmouth Harbor.

Comment: When you look at the salt marsh, you might also investigate the salt marsh fish.

Comment: The Navy probably does not have enough money to clean up all the contamination it finds. Why hasn't there been a hue and cry that no effort is being made to piggy back on the Navy's clean up?

Response: Our task is to identify the Shipyard's contribution. Since records are not that accurate, we need to guess at how much was released. Your concern is understandable. The people at EPA's Narragansett Laboratory would like to do

something here but resources are earmarked for places like New Bedford Harbor that have really serious levels of contamination.

Comment: Dr. Gaudette at UNH and his students have undertaken a study to determine tannery inputs (of heavy metals) to the estuary. They used markers to identify the source of lead. Apparently they took several core samples in areas off the Shipyard. Could the Navy also conduct some marker investigations?

Response: Carolyn Lepage also offered this information as a comment on the ERA. We will attempt to obtain some additional information.

Comment: The Navy could also look to see the different chemical distributions. If the ratio of chemicals in one location is different from the ratio in another area, it may be a sign that the sources are different. You could do a geostatistical analysis. There are several different ways to look at it.

Comment: The Piscataqua River has been designated a National Estuary. The designation provided \$500,000. Could that money be used to fund some of these studies?

Response: The \$500,000 is being used to pull together all the research that exists on the river to get a better handle on the big picture.

Comment: UNH will be approaching the Navy with the lead information. They are looking at the actual lead isotopes.

Response: It sounds interesting. It would be a good topic for a future RAB presentation.

Comment: Other than gasoline, what are potential lead sources? How do lead levels here compare to levels elsewhere?

Response: Sources include solder from lead pipes, lead paint, batteries, junk yards, rifle ranges, gun clubs, and marinas from paint used on boat bottoms. Boothbay Harbor has among the highest lead levels on the east coast (120 - 130 ppm).

Comment: Two years ago, Fred Short said the Piscataqua River was in the top 98 percent of areas with lead in sediments.

Comment: Are there any particular contaminants known to come from the Shipyard that are not expected to be in the harbor from other sources?

Response: The ERA included a marker study. It was inconclusive.

Comment: What about tributyltin? Was it commonly used on submarines?

Response: No. Not on the submarines. It has been tested on Navy surface ships.

Comment: Will anyone follow up with Dr. Gaudette?

Response: Bob Johnston has been tasked to try to reach him.

Comment: Is there anything new on the mercury burial vault?

Response: Nothing new will be available until the next RAB meeting. At about that time we will be issuing a work plan to do a magnetometer survey. You may recall we discussed the multi-towed array device (MTAD) at the last RAB meeting. It will be towed around the JILF to provide a magnetometer reading every 2.5 feet. It will also take GPS bearings to ensure we can find anything the survey picks up. The device has been used at other sites to look for unexploded ordnance, so it can estimate the size and depth of materials.

Comment: Will you be able to do any exploratory work while the machine is in residence? It would be a bit like calibrating it.

Response: The current plan is to do the survey in the fall of 1998 and the test pitting in the spring of 1999. We are looking for any drums that remain (reports exist that from 1945 to 1965 waste oil and solvents in steel drums were dumped into the landfill) as well as Mercury Burial Vault II.

Comment: We need to make better use of the GIS information we already have.

Response: Brown & Root is putting together information on what GIS data exist.

Comment: Are there any critical decision points scheduled for the summer of 1998? When will the HHRA review for OU 3 be completed?

Response: We expect it in the August/September 1998 time frame. There will be at least a 30-day review period.

Comment: What have you found out about the old foundry?

Response: If you check the minutes from the last RAB meeting, the answer is provided there. It refers you to the Historical Radiological Assessment.

#### NEXT RAB MEETING

The next RAB meeting will be held on Thursday, June 25, 1998, at Howard Johnson's in Portsmouth. The presentation will focus on the upcoming MTADs work at the JILF. We will also have just begun the field work for Sites 10, 29, 30, 31, and 32, which is expected to be completed in July 1998.

The meeting following the June RAB meeting could be scheduled for August or September 1998. September 17, 1998 was agreed to as the date for the following RAB meeting.