



DEPARTMENT OF THE NAVY
PORTSMOUTH NAVAL SHIPYARD
PORTSMOUTH, N. H. 03804-3000

N00102.AR.000892
NSY PORTSMOUTH
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IN REPLY REFER TO:

August 24, 2000

MEMORANDUM

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

RAB members are invited to attend a technical meeting on Wednesday, September 13, 2000. The purpose of this meeting is to discuss the seeps at Operable Unit 3 which includes Site 8, the Jamaica Island Landfill, Site 9, Mercury Burial Sites I and II and Site 11, the former Waste Oil Tanks. The meeting will begin at 9 a.m. and conclude by 3 p.m.

If you plan to attend this technical meeting, please contact Mr. Alan Robinson in the Public Affairs Office no later than September 8, 2000 to make arrangements to attend. He can be reached at 207-438-1140.

Sincerely,

Ken
Ken Plaisted
Navy Co-Chairman
Restoration Advisory Board

Distribution:

Doug Bogen
Michele Dionne
Phil McCarthy
Johanna Lyons

Jeff Clifford
Eileen Foley
Jack McKenna
Roger Wells

Mary Menconi
Mary Marshall
Onil Roy
Carolyn Lepage

EPA Region I (M. Cassidy)
MEDEP (Iver McLeod)
NOAA (K. Finkelstein)
MEDMR (D. Card)
NHFG (C. McBane)
USFWS (K. Munney)
North Div (F. Evans)
COMSUBGRU TWO (R. Jones)
PNS (Codes 100PAO, 105, 105.5, 106, 106.3, 106.3R, NRRO)



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PITT-11-0-014

November 3, 2000

Project Number 1549

Ms. Meghan Cassidy
Environmental Protection Agency
Region I (Mail Code: HBT)
1 Congress Street, Suite 1100
Boston, Massachusetts 02114-2023

Mr. Iver McLeod
Maine Department of Environmental Protection
State House Station 17
Augusta, Maine 04333-0017

Reference: Contract No. N62472-90-D-1298 (CLEAN)
Contract Task Order No. 166

Subject: September 13, 2000 Meeting Minutes
Portsmouth Naval Shipyard (PNS), Kittery, Maine

Dear Ms. Cassidy/Mr. McLeod:

On behalf of the U.S. Navy, Tetra Tech NUS, Inc. is pleased to provide to the U.S. Environmental Protection Agency Region I (USEPA) and to the Maine Department of Environmental Protection (MEDEP) 4 copies each of the subject document.

Please note the minutes will be included in Appendix F.4 of the final Operable Unit 3 Feasibility Study.

If you have any comments or questions, or if additional information is required, please contact Mr. Fred Evans at 610-595-0567 x 159.

Sincerely,

Deborah Cohen, P.E.
Project Manager

DC/kl

Enclosure

Ms. Meghan Cassidy
Environmental Protection Agency
Mr. Iver McLeod
Maine Department of Environmental Protection
November 3, 2000 - Page 2

NORTHDIV, (Code 1823/FE, F. Evans) (6 copies)
PNS (Code 106.3R, M. Raymond) (4 copies)
NOAA (K. Finkelstein)
ME Dept. of Marine Resources (D. Card)
Mr. Doug Bogen
Ms. Michele Dionne
Ms. Mary Marshall
Mr. Jack McKenna
Mr. Onil Roy
Dr. Roger Wells
PNS Code 100PAO (w/o enclosure)
Mr. Mark Perry, Tetra Tech NUS

US Fish & Wildlife Service (K. Munney)
NH Fish & Game (C. McBane)
Mr. Jeff Clifford
Ms. Eileen Foley
Mr. Phil McCarthy
Ms. Mary Menconi
Ms. Johanna Lyons (SAPL)
Ms. Carolyn Lepage
COMSUBGRU TWO (R. Jones)

**Technical Meeting to Discuss Seep Issues Associated with Operable Unit 3 (OU3)
Portsmouth Naval Shipyard, Kittery, Maine
September 13, 2000**

The meeting started at approximately 9:30 am and ended at approximately 2:00 pm. Attending the meeting were:

Meghan Cassidy and Patti Tyler, EPA
Iver McLeod and Katie Zeeman, MEDEP
Ken Plaisted, Gary Merrill, and Marty Raymond, PNS
Fred Evans and Jason Spiecher, Northern Division
Debbie Cohen and JP Kumar, TtNUS
Jeff Clifford, RAB Member
Ken Finkelstein, NOAA
Ken Munney, US Fish and Wildlife

Meeting Facilitator: Lyle Hall, MEDEP

After introductions, the agenda was discussed briefly. It was noted that the agenda that was mailed with the meeting notice had been revised based on discussion among the Navy, MEDEP, and EPA. The revised agenda is attached to these minutes.

The meeting began by discussing the concerns related to the seeps and also some of the background information related to seeps. The EPA indicated that it was important for the discussion of the seeps that the parties are clear about what the concerns are and what the technical basis is for each concern. Also, EPA mentioned that a separate meeting would be necessary to address Applicable and Relevant and Appropriate Requirements (ARARs) issues related to seeps.

Seep Concerns:

MEDEP indicated their concern is that the seeps may be adversely impacting biota. Specifically, the epibenthic biota are exposed to undiluted seep water, particularly at the Jamaica Cove seeps, which meander across the mudflats. The seep concentrations (undiluted) in the samples collected as part of the 1996/1997 monitoring exceeded AWQCs. MEDEP is concerned that impacts to biota living in the seep are not being addressed as part of the interim offshore monitoring program and the MEDEP does not know whether the seep water is toxic or not. The MEDEP presented Whole Effluent Toxicity (WET) testing of the seeps as a possible method to determine whether there is the toxicity from the seeps.

The EPA indicated that WET testing of the seeps would not be an appropriate toxicity test if the epibenthic or infaunal organisms are the biota of concern in seeps. Also sediment has the greater potential for risk and therefore monitoring focuses on sediment.

NOAA indicated that as part of the development of the interim offshore monitoring program, NOAA reviewed the seep and sediment data and found that seep concentrations were not such a concern, but the sediment concentrations were higher. In addition, seeps appear to be a very limited portion of the intertidal area. Therefore, sediment is the most important concern for the offshore. Also, there is greater

confidence in monitoring sediment than monitoring seep because of the transient nature of the seeps. Water chemistry is really a "snapshot" and is not an indicator of accumulation.

The Navy noted that the OU3 Feasibility Study was modified to include seep monitoring as part of the monitoring program for OU3 because of the concerns with seeps. The Navy believes that monitoring would be required as part of any remedy selected for OU3. The interim offshore monitoring program includes sediment and biota sampling in the vicinity of the seeps, but does not include sampling of the seeps. During the development of the interim offshore monitoring program everyone was aware that the seep concentrations exceeded AWQCs (for metals and pesticides without consideration of dilution); however, everyone decided that targeting sediment was important and mussel would be targeted as an alternative to sediment. The 1996/1997 seep/sediment data were considered in the development of the Interim Offshore Monitoring Program. Also, during the development of the Interim Offshore Monitoring Program, an assumption was made that concentration trends would be more apparent in the sediment than in the seeps.

In answer to a question as to whether the mussels collected as part of the interim offshore monitoring program were being collected right in the seep, near the seep, or at the end of the intertidal area, it was indicated that mussel were collected where available near the sediment sample. *[Meeting postnote: The field notes for Rounds 1, 2, and 3 sampling of the interim offshore monitoring were reviewed to determine whether mussels were collected from within the seeps. The field notes indicate that samples were collected nearby the seeps, but do not specifically identify the samples that were collected within the seeps. However, based on the recollection of the TINUS Field Operations Leader (Mr. Aaron Bernhardt), mussels were generally collected within seeps that had more of a sheet flow. Although some mussels were likely collected within seeps with more of a rivulet flow, more mussel were collected nearby the seep (generally about a foot away) for those locations.]* For Round 4 sampling (and subsequent rounds), the sampling team will be directed to include in the field notes whether or not the sample was collected within or nearby the seep (with approximate distance from the seep).

Also during the discussion of mussel sampling, it was indicated that further discussion is necessary on whether collecting 50 mussels at each sampling location each round may be depleting the mussel population.

Based on the discussion of the seep concerns, it was agreed that the seeps should not be ignored; however, sediment is the major concern and that is why the interim offshore monitoring program was developed to monitor sediment. The meeting participants agreed that the remainder of the meeting should focus on how to monitor seeps as part of monitoring for OU3 and what additional offshore monitoring would be necessary to address the seep concerns.

Monitoring for any alternative for OU3 would include monitoring of groundwater as well as sediment. Surface water and seeps would also be included in the monitoring program. Biota also may be included. The overall objectives of a monitoring program would be outlined as part of the remedy selection and the specifics of the program would be developed in a separate follow-on document.

OU3 Conceptual Monitoring Plan as Relates to Seeps

The discussion of a conceptual monitoring plan as related to seeps was added to agenda, but the meeting participants agreed that it was really the focus of the meeting. The objective of monitoring for seeps would be to determine whether seeps are an ongoing source of contamination to the offshore that is causing adverse impacts.

Possible data needs discussed during that meeting that might be used for the objective identified were:

- Basic seep water chemistry (i.e., contamination level in seeps)
- Biota data for toxicity/determination of impacts.
- Seep water trends in comparison to some remedial goal
- Effects test? Monitoring biota concentrations is exposure not effects.

A monitoring decision tree would be developed as part of the monitoring program development. The monitoring decision tree probably would likely be similar to OU4 interim offshore monitoring program in that the specific additional activity that would be conducted would not necessarily be specified, but the decision would specify when additional activity is necessary.

Jeff Clifford expressed a concern that organisms in surface water are being carried into the landfill, exposed to chemicals in the landfill, and then washed back out with the tide. Jeff mentioned concerns with bioaccumulation from other biota eating these contaminated organisms. Patti Tyler said that there are simple calculations that can be done to determine whether bioaccumulation is a concern and she did not believe that bioaccumulation would be a concern based on these calculations. Also, surface water risks were evaluated as part of the Estuarine Ecological Risk Assessment (EERA) and risks were determined to be low in the area offshore of OU3.

There was some discussion of what tests/investigations could be conducted to address the questions of what effects the seep water was having on biota in the intertidal area. The meeting participants agreed that an action item for everyone was to try to find out if there are some specific test available that could be used to determine the effects of seep water. However, additional discussion would be necessary to determine how the tests would be used. A test for determining the effects would not necessarily indicate what were acceptable exposure levels.

The EPA also express concern with comparing undiluted seep concentrations to Ambient Water Quality Criteria (AWQC) because AWQC are considered threshold levels for concentrations in surface water bodies and not seeps. EPA did not believe that it would be technically appropriate to compare the seep concentrations without consideration of mixing with surface water. Therefore, AWQC would not be the appropriate levels for assessing exposure for seeps directly.

In discussion of a monitoring program for OU3, the EPA indicated that because waste would be left in place at OU3, the Navy would be required to continue monitoring. Although the offshore monitoring program for OU4 may indicate no further action for

OU4, any OU3 monitoring would need to continue, including the offshore components of the monitoring.

Conclusions and Action Items

Additional meetings/discussions are needed between EPA, MEDEP, and Navy management to discuss some of these issues. In particular, if the regulators and Navy can come to a consensus that MEDEP's concerns can be adequately addressed in a monitoring plan as part of the remedy for OU3, then the Navy is in a position to move forward with the remedy selection process. If a consensus cannot be reached, then additional management discussion will be necessary to determine what the next steps should be.

Also the regulatory and Navy management need to determine whether or not OU3 should be split into two operable units (i.e., into a source control operable unit and a migration of groundwater operable unit). If OU3 is split into two operable units then two Record of Decisions would be necessary and the OU3 FS would need to be revised. At this time, the Navy and EPA believe that the remedy selection process can move forward as one operable unit for OU3.

As to the question of whether additional information on the seeps is a data gap or an uncertainty, the Navy and EPA do not view it as a data gap, but it is information needed to insure that the selected remedy is effective over the long term. The Navy does not believe that the uncertainty is significant enough to delay the decision and that the uncertainty can be addressed through monitoring as part of the remedy for OU3. The MEDEP has questions of whether it is a data gap versus an uncertainty.

The following table summarizes the action items identified for each of the discussion topics and the person(s) responsible for the action.

Discussion Item	Action	Organization Responsible
Seep impacts	Methods to measure effects	EPA, MEDEP, and Navy
	Data gap vs uncertainty (affects 1 ROD or 2 RODs)	MEDEP
	Set up conference call to discuss possible numbers to compare seep concentrations.	EPA, MEDEP, and Navy
Offshore Monitoring	Look into mussel sample locations in relation to the seeps	Navy
Schedule	Set up conference call to discuss	EPA, MEDEP, and Navy

Closing/consensus

- Seeps should not be ignored. Current data indicates there may be a potential impact from seeps (based on screening undiluted seeps (i.e., without consideration of dilution) against AWQCs)
- Sediments are the primary offshore media of concern and therefore sediment monitoring was included in the interim offshore monitoring for OU4.
- Sediment, groundwater, seep, and surface water monitoring should be included in a monitoring program for OU3.

**PORTSMOUTH NAVAL SHIPYARD
TECHNICAL MEETING AGENDA
OU3 SEEPS
SEPTEMBER 13, 2000**

0900-0915 – Opening Remarks and Introductions

0915-1130 – OU3 Seeps and Impacts in the Offshore

- 1) Past chemical levels observed in seeps
 - a) Levels of chemicals in seeps
 - i) Mixing vs no mixing for application of AWQC
 - (1) DDT concentrations in seeps
 - (2) Other contaminant concentrations in seeps
 - b) Linking groundwater concentrations with seep concentrations
 - i) Seep and Sediment Report Conclusions

- 2) Summary of types of data provided by the Interim Offshore Monitoring Program for addressing OU3 seeps
 - a) Suitability of the Monitoring Program for predicting potential impacts from seeps in the intertidal and subtidal areas
 - i) Are sediments acting as a “sink” for contaminants?
 - ii) Are current monitoring stations (i.e. stations 5-9) properly located in relationship to OU3 seeps?

1130-1200 – Lunch (orders will be taken during morning hours)

1200-1430 – Continue Discussion Carried over from Morning hours

1430-1500 – Closing Discussion on Issues Addressed, Consensus Reached, and Issues Outstanding



DEPARTMENT OF THE NAVY

NORTHERN DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
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MAIL STOP, #62
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IN REPLY REFER TO

5090
Code 09TC/FE

06 SEP 2000

Ms. Meghan Cassidy
U.S. Environmental Protection Agency, Region I
1 Congress Street
Suite 1100
Mail Code HBT
Boston, MA 02114-2023

Mr. Iver McLeod
Maine Department of Environmental Protection
State House Station 17
Augusta, ME 04333-0017

Dear Ms. Cassidy/Mr. McLeod:

SUBJECT: OPERABLE UNIT 3; INSTALLATION RESTORATION PROGRAM FOR PORTSMOUTH
NAVAL SHIPYARD, KITTERY, ME

Enclosed the proposed agenda for the September 14, 2000 Technical Meeting
at Portsmouth Naval Shipyard to begin discussion of Seep Issues associated
with Operable Unit 3.

If additional information is required please contact Mr. Fred Evans at
(610) 595-0567 x-159.

For the Community Restoration Advisory Board (RAB) members; if you have
any comments or questions on these issues, they can be provided to the Navy
at a RAB meeting, by calling the Public Affairs Office at (207) 438-1140 or
by writing to:

Portsmouth Naval Shipyard
Code 106.3R Bldg 44
Attn Marty Raymond
Portsmouth, NH 03804-5000

Sincerely,


Frederick J. Evans
Remedial Project Manager
By Direction of the
Commanding Officer

Copy to:

NOAA (K. Finkelstein)	USFWS (K. Munney)	MEDMR (D. Card)	NHFG (C. McBane)
Mr. D. Bogen	Mr. J. Clifford	Ms. M. Dionne	Ms. E. Foley
Ms. M. Marshall	Mr. P. McCarthy	Mr. J. McKenna	Ms. M. Menconi
Mr. O. Roy	Ms. J. Lyons	Dr. R. Wells	Ms. C. Lepage
PNS Code 100PAO	PNS (Code 106.3R)	TtNUS (D. Cohen)	COMSUBGRU TWO (R. Jones)

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