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661 Andersen Drive ■ Pittsburgh, Pennsylvania 15220-2745  
(412) 921-7090 ■ FAX (412) 921-4040 ■ www.tetrattech.com

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PITT-08-1-011

August 14, 2001

Project Number 6515

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. 232

Subject: Pre-signature Copy of the Final OU3 ROD  
Portsmouth Naval Shipyard (PNS), Kittery, Maine

Dear Ms. Cassidy/Mr. McLeod:

On behalf of the U.S. Navy, Tetra Tech NUS, Inc. is please to provide to the U.S. Environmental Protection Agency Region I (USEPA) and to the Maine Department of Environmental Protection (MEDEP) 1 copy each of the pre-signature OU3 ROD, along with a copy of the signature pages (unbound). The response to comments on the draft final (USEPA dated July 23, 2001; MEDEP dated July 30, 2001; and SAPL dated July 26, 2001) are also enclosed (4 copies for each USEPA and MEDEP).

As per the project schedule, the Navy will provide the USEPA with a copy of the OU3 ROD including Navy signature on or before **August 20, 2001**.

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/kf  
Enclosure

Ms. Meghan Cassidy  
Environmental Protection Agency  
Mr. Iver McLeod  
Maine Department of Environmental Protection  
August 14, 2001 – Page 2

EFANE (Code 1823/FE, F. Evans) (1 bound pre-signature copy, set of signature pages, response to comments)

PNS (Code 106.3R, M. Raymond) (2 bound pre-signature copies, unbound copies, set of signature pages, 4 response to comments)

Response to Comments Only:

NOAA (K. Finkelstein) (w/o enclosure)  
ME Dept. of Marine Resources (D. Card)  
Mr. Doug Bogen  
Ms. Michele Dionne  
Mr. Jack McKenna  
Dr. Roger Wells  
Mr. Onil Roy  
PNS Code 100PAO (w/o enclosure)

US Fish & Wildlife Service (K. Munney) (w/o enclosure)  
NH Fish & Game (C. McBane)  
Mr. Jeff Clifford  
Ms. Mary Marshall  
Mr. Phil McCarthy  
Mr. Jim Horrigan (SAPL)  
Ms. Carolyn Lepage  
COMSUBGRU TWO (R. Jones)

**RESPONSES TO EPA COMMENTS DATED JULY 23, 2001 ON  
DRAFT FINAL RECORD OF DECISION FOR OPERABLE UNIT 3  
PORTSMOUTH NAVAL SHIPYARD, KITTERY, MAINE**

**General Comments:**

1. **Comment:** Page 1-2. Section 1.3: In the 2<sup>nd</sup> line on the page, replace "or groundwater" with "and groundwater."

**Response:** The change will be made as requested.

2. **Comment:** Page 1-2. Section 1.4: In the 1<sup>st</sup> sentence, insert "a" before "hazardous waste landfill cover."

**Response:** The change will be made as requested.

3. **Comment:** Page 1-4. Section 1.4: In the 1<sup>st</sup> line on the page, insert "a" before "full enforceable schedule."

**Response:** The change will be made as requested.

4. **Comment:** Page 2-14. Section 2.7.1, Sites 8/9: In the 2<sup>nd</sup> paragraph, 1<sup>st</sup> sentence (parenthetical), insert "a" before "250-day."

**Response:** No change required. The 1<sup>st</sup> sentence (parenthetical) already reads "(i.e., the evaluation assumed a 480 mg/day soil ingestion rate for a 250-day duration for a pregnant woman)".

5. **Comment:** Page 2-21. Section 2.9: In the 1<sup>st</sup> sentence, insert "or emanating from" before "Navy property." This ensures that the text reflects Executive Order 12580.

**Response:** The change will be made as requested.

6. **Comment:** Page 2-27. Section 2.11: In the 1<sup>st</sup> sentence of the last paragraph, replace "less short-term risks" with "fewer short-term risks."

**Response:** The change will be made as requested.

7. **Comment:** Page 2-35, 2<sup>nd</sup> paragraph: See comment No. 3 above.

**Response:** The change will be made as requested.

8. **Comment:** Page 3-10, Response to Comment 12: In the 1<sup>st</sup> paragraph, the next-to-last sentence does not fully make sense. The following revision is suggested: "The three agencies decided that "source control" and "management of migration" needed to be separated because the seeps do not pose an immediate threat to human health and the environment, the agencies want to take action on the cap as soon as possible, and separating OU3 and OU6 would provide the additional time needed to properly address...."

**Response:** The change will be made as requested.

9. **Comment:** Page 3-11, Response to Comment 13: The last sentence in the first paragraph does not fully make sense. The following revision is suggested: "The three agencies decided that "source control" and "management of migration" needed to be separated because the seeps do not pose an immediate threat to human health and the environment, the agencies want to take action on the cap as soon as possible, and separating OU3 and OU6 would provide the additional time needed to properly address...."

**Response:** The change will be made as requested.

10. **Comment:** Page 3-19, Response to Comment 28: Please update this response to reflect the fact that the United States Supreme Court has decided that PNS is in Maine.

**Response:** The change will be made as requested. The text will be revised to read as follows:

"The issue of the Shipyard's location was recently before the United States Supreme Court and the Supreme Court ruled that the Shipyard is in the State of Maine."

**RESPONSES TO MEDEP COMMENTS DATED JULY 30, 2001 ON  
DRAFT FINAL RECORD OF DECISION FOR OPERABLE UNIT 3  
PORTSMOUTH NAVAL SHIPYARD, KITTERY, MAINE**

**General Comments**

1. **Comment:** 1.4 Description of the Selected Remedy, p. 1-2, 1st bullet

"Portions of the JILF that have buildings and structures will not be covered under the hazardous waste landfill cover."

We interpret this sentence to mean that the landfill cover will be used in all areas that cover waste except the building footprints. We expect that the asphalt around the buildings that is over waste to be covered with the hazardous waste landfill cover. Asphalt may be added on top of that. Another option is to use an approved asphalt material that will act as a barrier to precipitation.

**Response:** Comment noted. As discussed at the August 7, 2001 Technical Meeting on the OU3 Design, the Navy will be digging test pits as part of the OU3 Pre-Design Investigation to determine the limits of landfill waste. All landfill waste will be covered with the hazardous waste landfill cover, unless it is under a building or structure.

2. **Comment:** 2.4 Scope and Role of Operable Unit 3, p. 2-8

"The MEDEP expressed concern that water quality standards may have been exceeded at some of the seep locations (above mid tide)..."

The MEDEP has been concerned with the entire intertidal zone, not just the portion above mid tide. However, we agreed to require investigation of potential risk to just those organisms above mid tide for a variety of reasons. Please omit the phrase "(above mid tide)" in the sentence above.

**Response:** The MEDEP has indicated that the seeps exposed above mid tide are of particular concern; therefore, the Navy proposes to revise the sentence (third sentence of the second paragraph on Page 2-8) by replacing "(above mid tide)" with "(particularly seeps exposed above mid tide)."

3. **Comment:** 2.5 Site Characteristics, p. 2-10, top paragraph

"The results of the test pitting in February/March 2000 at the JILF..."

This new text does not provide the information regarding dioxin that we want included in the ROD. The final paragraph in the Navy's Response to Comment 11 ("In support of the preparation...") is what we would like included.

**Response:** The Navy disagrees with adding the text on dioxin because this information was not used by the Navy in making its decision for OU3.

4. **Comment:** Responsiveness Summary, Comment 20, p. 3-16

"With exception of the mercury burial sites, no other drums of hazardous materials have been found during the various test pitting, soil sampling, or soil boring/monitoring well installation activities that have been conducted as part of the remedial investigations. This means that the USEPA, MEDEP, and the Navy all believe that the JILF does not contain hazardous wastes that are at high concentrations or that are likely to move in to the groundwater."

The second sentence of the above paragraph is incorrect insofar as it reflects the MEDEP's belief. The MEDEP has repeatedly stated that we do not believe the test pitting program accounted for all potential buried drums. The Department definitely does believe that there is a potential for full drums of hazardous waste to exist in the landfill, and if ruptured/corroded could release contaminants to the groundwater. This paragraph should be corrected to reflected the MEDEP's belief.

**Response:** The underlined portion of the text shown below was excluded from MEDEP's comment. The text actually reads "With exception of the mercury burial sites, no other drums of hazardous materials have been found during the various test pitting, soil sampling, or soil boring/monitoring well installation activities that have been conducted as part of the remedial investigations. In addition, the landfill has been characterized as containing a large quantity of low level wastes. This means that the USEPA, MEDEP, and the Navy all believe that the JILF does not contain hazardous wastes that are at high concentrations or that are likely to move in to the groundwater."

The MEDEP has stated previously that the landfill was a high volume of waste that poses a relatively low threat (e.g., MEDEP's Specific Comment 8 dated December 30, 1999 on the draft OU3 FS). The Navy does not believe that the text is incorrect. The Navy will add "(i.e, no hot spots)" after "high concentrations."

#### RESPONSES TO COMMENTS – MEDEP COMMENTS DATED MAY 16, 2001

5. **Comment:** RTC 2, p. 5

"The Navy would appreciate early input from the MEDEP on the mechanisms used at other sites to track and enforce land use controls..."

We suggest the Navy refer to institutional controls (IC's) put in place at the Naval Air Station in Brunswick, ME for this information.

**Response:** Comment noted and appreciated. The Navy will refer to institutional controls (IC's) put in place at the Naval Air Station in Brunswick, ME when developing its IC's for PNS.

6. **Comment:** RTC 3, p. 6

"The Navy disagrees a land use control is necessary for the restriction of brackish or saline

water from OU3."

Please explain the reasons for the Navy's disagreement.

**Response:** Based on the results of the risk assessment for OU3, risks associated with human exposure to brackish/saline water at OU3 are acceptable (based on CERCLA and MEDEP guidelines), therefore, restrictions are not required to prevent exposure to brackish/saline groundwater at OU3. However, restrictions will be necessary to protect the landfill cover system regardless of the type of groundwater beneath it. Therefore, EPA and MEDEP will be notified if work is planned for the area.

7. **Comment:** RTC 5, p. 7

"...the extent of synthetic materials in the vicinity of the shoreline have been governed by slope stability concerns using a 100-year flood elevation. Assuming a higher sea level elevation from global warming may result in greater slope stability concerns than with a 100-year flood elevation."

Please explain this reasoning. Why would assuming a higher sea level elevation result in greater concerns regarding slope stability?

**Response:** Based on the Navy's experience at other sites, following high tide or a significant storm event having a synthetic liner will restrict the flow of water thereby creating a water pressure buildup behind the liner. This pressure buildup would create a slope failure to occur at the edge of the landfill to relieve the pressure buildup. Designing for a higher sea level or less frequent storm event may raise the elevation where the synthetic liner would need to be discontinued.

8. **Comment:** RTC 8, p. 8

"Portions of the JILF that have buildings and structures will not be included under the hazardous waste landfill cover."

See Comment 1.

**Response:** Please see the Navy's response to MEDEP Comment No. 1 above.

9. **Comment:** RTC 10, p. 9

"The text will be revised..."

See Comment 2.

**Response:** Please see the Navy's response to MEDEP Comment No. 2 above.

10. **Comment:** RTC 11, p. 10

"In support of the preparation for the DQOs for OU3 and OU6, the Navy calculated toxicity equivalents...for the dioxin data for soils..."

Please include this paragraph in the ROD text. See Comment 3.

**Response:** Please see the Navy's response to MEDEP Comment No. 3 above.

11. **Comment:** RTC 14, p. 11

"The sentence will be revised to read '...it is anticipated that current land uses of Sites 8/9 will continue.' "

This sentence should be further revised as Site 8 is the landfill and Site 9 is the Mercury Burial Vaults. We don't anticipate the Navy continuing the use of either of these sites. Perhaps the sentence could read, "...it is anticipated that current land uses of the land associated with Sites 8/9 will continue."

This same comment applies to RTC 15, regarding Site 11.

In addition, the current land uses of these properties should be described in this section if not done so elsewhere in the ROD.

**Response:** Current land use is described in Section 2.6 (pages 2-11 through 2-12). The text in Section 2.7.1 will be revised by adding a reference to Section 2.6. The following text revisions will be made:

Sites 8/9, first paragraph on Page 2-15: "These results are significant because it is anticipated that current land uses of Sites 8/9 will continue (*see Section 2.6 of this ROD*).

Site 11, first paragraph on Page 2-16 (continued from Page 2-15): "These results are significant because it is anticipated that current land uses of Site 11 will continue (*see Section 2.6 of this ROD*).

12. **Comment:** RTC 27, p. 16

The MEDEP requested that the Navy collect data from the seeps prior to installation of the cap to get a "pre-cap" characterization of the seeps. The Navy's response does not seem to indicate how the Navy will get such a characterization as it refers to the DQO process for OU6. Is the intent of the Navy to collect such data as part of OU6 (depending on the outcome of the DQO process) but prior to installation of the OU3 cap?

**Response:** RTC 27 is discussing the DQOs related to OU3 (which will be conducted as part of the development of the monitoring program for OU3). If it is determined in the development of DQOs for OU3 or the development of DQOs that additional "pre-cap" data for the seeps is necessary, to support either OU3 or OU6 this will be conducted. The DQO development for OU3 monitoring and OU6 investigation will be conducted separately; however, it is good to consider where data can support both OU3 and OU6 purposes. During the development of the

work plans, it will need to be determined which work plan will include the specific field activities:

13. **Comment:** RTC 32, p. 19

The added wording should be revised as follows: "...seeps that have chemical concentrations exceeding surface water quality criteria could expose the organisms that live in the seeps to unacceptable risk."

**Response:** The Navy proposes the following wording (for the second sentence, second paragraph, response to Comment 12 of the Responsiveness Summary):

"...seeps that could have chemical concentrations exceeding exceeding surface water quality criteria may adversely impact the organisms exposed directly to the seeps."

14. **Comment:** RTC 34, p. 20

"This is based on the results of the human health risk assessments..."

Based on this statement the sentence that we questioned in our original comment should indicate that chemical concentrations in the sediment and surface water were compared to results of human health risk assessments, not human health standards.

**Response:** The chemical concentrations were compared to risk screening levels and the results of the risk assessment for the chemicals of potential concern were compared to human health risk standards. The response to Comment 16 in the Responsiveness Summary will be revised as follows:

"Chemicals were detected in the seeps and sediments along the shore of the JILF at low concentrations in comparison to human health *risk standards (the risks identified were within or below the CERCLA risk range [between  $1 \times 10^6$  and  $1 \times 10^4$ ] and below the MEDEP risk guidelines [ $1 \times 10^5$ ])*. Risk evaluations ..... The chemical concentrations in the sediment and surface water in the vicinity of the Shipyard are also low in comparison to human health *risk standards* and there are no human health concerns because of chemicals in the sediment or surface water."

15. **Comment:** RTC 35, p. 21

Change the added sentence to, "...the Navy has provided and will continue to provide the appropriate agencies of the States of Maine and New Hampshire with data..."

**Response:** The text will be revised to: "...the Navy has provided and will continue to provide the appropriate agencies of the States of Maine and New Hampshire with data..."

**RESPONSES TO SAPL COMMENTS DATED JULY 26, 2001 ON  
DRAFT FINAL RECORD OF DECISION FOR OPERABLE UNIT 3  
PORTSMOUTH NAVAL SHIPYARD, KITTERY, MAINE**

1. **Comment.** Page 1-3, Section 1.4 DESCRIPTION OF THE SELECTED REMEDY. SAPL had commented previously (Original Comments 7, 52, 61, 62, and 63) on the Navy's proposed timeframe for developing and implementing a plan to collect samples from OU6. The second bullet on page 1-3 states that the work plan for the additional investigation for OU6 will be completed by the time the Jamaica Island Landfill (JILF) cap construction is complete. According to the proposed *Operable Unit 3 Remedial Design and Remedial Action Schedule* (dated April 16, 2001), remedial construction will not be completed until October 2005. SAPL had commented that it should not take over four years to develop an investigation work plan and that the work plan should be completed well in advance of the cap completion. Furthermore, that it is important to gather the information on seep concentrations and potential impacts in the near future, not almost five years down the road. Data should be gathered before the cap is constructed so that it can be evaluated and appropriate measures can be implemented, if necessary. The data should also be compared with concentrations after the cap is installed to test the assumption that the cap will decrease the effects of the seeps.

The Navy responded that it recognized SAPL's concerns, but believes that the schedule presented in the OU3 ROD for the OU6 work plan is the minimum schedule that can be achieved. This does not seem reasonable to SAPL; it should not take over four years to develop and implement a sampling work plan for OU6. A technical meeting will be held within 60 days of the signing of the ROD to develop the data quality objectives (DQOs) for sampling OU6. Developing the DQOs is the most intense activity related to sampling OU6. Once the DQOs are developed, fleshing out a work plan should be relatively easy, and shouldn't take over four years to accomplish. It is not appropriate to specify an almost five-year period to develop the OU6 work plan in the OU3 ROD.

The public has been adamant about the need to sample OU6 immediately. The Navy's delayed approach does not address concerns regarding what the seep impacts are. SAPL believes that OU6 should be sampled before cover construction is complete for a couple of reasons. One is to collect the baseline data necessary to test the Navy's assumption that the cover will decrease the effects of the seeps. These data should be compared with concentrations after the cap is installed to test the assumption. Another reason is that sampling could identify adverse impacts in a timely fashion, so that appropriate measures could also be taken in a timely fashion. Data should be gathered before the cap is constructed so that it can be evaluated and appropriate measures can be implemented, if necessary. It is important to gather the information on seep concentrations and potential impacts in the near future, not five years down the road.

**Response:** In the Navy's response to SAPL Comment No. 7 dated May 16, 2001, the Navy indicated that the Navy believes that the schedule presented in the OU3 ROD for the OU6 work plan is the minimum schedule that can be achieved "(i.e., any schedule revisions would likely be to provide a more expedited schedule rather than extension of the schedule)". The Navy also indicated that based on the DQOs the appropriate schedule for data collection activities would be determined and the Navy will then re-evaluate the schedule for OU6. The Navy will not revise the schedule for OU6 until after the DQOs are developed and the text in the OU3 ROD related to the schedule will not be changed.

The Navy recognizes that SAPL would like the Navy to sample OU6 immediately; however, the Navy believes that development of the data collection objectives is necessary before beginning any data collection activities so that the Navy can ensure that the appropriate data are collected to answer the questions that have been identified. If the DQOs indicate the Navy should begin collecting data from the seeps as soon as possible the Navy will do so after completion of the workplan. As indicated in the ROD, the Navy will hold a DQO meeting for OU6 within 60 days of signing of the ROD for OU3. The Navy is proposing the DQO meeting be held in the first week of October 2001.

2. **Comment. Page 1-4, Section 1.4 DESCRIPTION OF THE SELECTED REMEDY.** Principal threat wastes are defined in the ROD Glossary as highly toxic or highly mobile source materials that generally cannot be contained in a reliable manner and/or would present a significant risk to human health or the environment should exposure occur. The ROD states on page 1-4 that the remedy will address principal threat waste by providing a cover to minimize infiltration of water through the landfill material and to prevent direct contact with site materials. The ROD should also state that the remedy is not designed to contain or impede migration of contamination from principal threat wastes. While SAPL anticipates that the Navy would characterize such migration to the near or offshore areas as an OU6 (management of migration) or OU4 issue, it is important to identify this limitation of the remedy in the OU3 ROD.

**Response:** Please see Page 1-2 under Section 1.3 for the text (which reads "However, management of migration of OU3 groundwater to the offshore will be addressed as part of OU6 (the management of migration operable unit for the JILF) and is not addressed by the ROD for OU3.")

3. **Comment. Page 2-3, Section 2.2 SITE HISTORY AND ENFORCEMENT ACTIVITIES.** SAPL had commented in Original Comments 14 and 22 (dated May 16, 2001) that the industrial wastes that were reportedly disposed at Site 8 should be listed so that the Contaminants of Concern (COCs) described later in the ROD can be put in some kind of context. For instance, given the concerns about dioxin detections on site and offshore, it is important to know that incinerator ash was disposed at Site 8. Other wastes reportedly disposed included plating sludges containing chromium, lead, and cadmium; asbestos; volatile organic compounds; empty acetylene and chlorine gas cylinders; contaminated dredge spoils containing chromium, lead, PCB oils, mercury and possibly phenols; waste paints and solvents; and sandblasting grit.

The Navy responded to Original Comment 14 by saying that the intent of Section 2.2 (and Sections 2.5 and 2.7) is to summarize site information to support the decision document, but refer to the Feasibility Study (FS) for further details. The Navy also believes that sufficient information was provided to understand the site, and refers to Section 2.5 for further description. The Navy responded to Original Comment 22 by saying that Section 2.5 summarizes information from the OU3 FS and it believes the detail in Section 2.5 is sufficient to support the decision document.

SAPL stands by its original comments that the information regarding wastes is needed to put the COCs in context. SAPL does not believe this is unreasonable, particularly because similar basic information is included in RODs relating to other sites at another Naval facility in Maine.

**Response:** The Navy believes that the ROD adequately characterizes the landfill (heterogeneous wastes and lists chemicals detected). The ROD references the appropriate section of the FS for additional information regarding wastes disposed of in the landfill.

4. **Comment.** Page 2-8, Section 2.4 SCOPE AND ROLE OF OPERABLE UNIT 3. The text revision included Navy's response to SAPL's Original Comment 20 regarding when actions relating to OU6 will be initiated (after the ROD for OU3 is signed) was not made.

**Response:** The revision will be made.

5. **Comment.** Page 2-11, Section 2.5 SITE CHARACTERISTICS. As SAPL commented previously (Original Comment 24 dated May 16, 2001), the description of contamination related to Site 11 operations should not be limited to petroleum alone. The site description earlier in the ROD indicates that materials other than waste oil alone were likely disposed in the tanks at Site 11. Furthermore, the waste oil disposed at Site 11 was likely contaminated with metals. Rather than revise the text, the Navy responded that the information provided in Section 2.5 is summarized from the FS. Regardless of what is reported in the FS, it is misleading to characterize the contamination associated with Site 11 as only petroleum. The text should be revised.

**Response:** Available data does not suggest a separate metals source area at Site 11 (as provided on page 2-10 of the ROD "Soil and groundwater data for Sites 8, 9, and 11 show similar chemical contamination throughout the area of the landfill."). The last paragraph of section states "At Site 11 the storage tanks and surrounding soils have been removed. The chemicals detected in the Site 11 soil and groundwater samples reflect JILF contamination in addition to petroleum contamination that may have originated from spills during filling of the tanks formerly at Site 11."

6. **Comment.** Page 2-12, Section 2.7.1 Human Health Risk. As SAPL pointed out in Original Comment 28, the first paragraph should be revised to clarify that the revised human health risk assessment for OU3 considered data collected prior to 1998. It did not include the results of the limited soil sampling conducted during the drum investigation test pitting in 2000, where dioxin was detected in several samples. Nor did the sampling conducted prior to 2000 include dioxin analysis. The Navy's response (including a text revision) does not address SAPL's concern that human health risk assessments for OU3 do not include analytical results for dioxin. This is an important shortcoming that should be identified up front, particularly because subsequent sections of the ROD present the assessment results and the decisions made based on those results.

**Response:** As provided in the response to SAPL Comment 28 dated May 16, 200, the remedy for OU3 (particularly the cap and institutional controls) will prevent human exposure to all chemicals in the JILF. The Navy believes that exclusion of the dioxin data in the risk assessment is not an important shortcoming. However, during the DQO process for the OU3 monitoring plan the Navy will consider all data available, including the data collected as part of the drum investigation test pitting in 2000.

7. **Comment. Page 2-20, Section 2.8 REMEDIAL ACTION OBJECTIVES.** The Navy's response to SAPL's Original Comment 32 regarding would application of the State of Maine Risk Guidelines be more conservative than the CERCLA risk range ( $10^{-4}$  -  $10^{-6}$ ) is misleading. The Navy states that the State of Maine guidance of  $10^{-5}$  (one in one hundred thousand) is less conservative than one in a million ( $10^{-6}$ ). While this is true, the reality is that it is the other end of the CERCLA risk range,  $10^{-4}$  or one in ten thousand, that is used in decision-making. For example, on page 2-20, the ROD states that for determining if Remedial Action Objective 1 is being met, carcinogenic risk estimates exceeding  $10^{-4}$  are unacceptable. Application of the State of Maine guidelines would actually be more conservative, and preferable to SAPL. If the Navy is going to use  $10^{-4}$  as its threshold for deciding unacceptable risk, it should say so up front and consistently throughout the ROD. Otherwise, the reader is confused or misled by the discussion of other acceptable risk levels or of "conservative" approaches to evaluating and addressing risks. For example, as noted in SAPL's Comment 34, the information presented in Sections 2.7 and 2.8 is confusing. Section 2.7 reported that risks were not acceptable for all scenarios. Then Section 2.8 on page 2-19 reported that risks are acceptable, yet noted that risks for all receptors exceed the State of Maine acceptable risk guidelines.

**Response:** SAPL's Original Comment No. 32 dated May 16, 2001 was on Section 2.7.3, Chemicals of Concern. The Navy's response to SAPL Comment No. 32 dated May 16, 2001 discusses chemical of concern (COC) selection and that the Navy used  $10^{-6}$  to identify COCs and  $10^{-6}$  is more conservative than  $10^{-5}$  for COC selection.

Section 2.8, Remedial Action Objectives, indicates that "Based on current and likely future use (occupational workers, recreational users, and construction workers), risks are acceptable." The text in Section 2.8 further explains that risks for hypothetical future resident are unacceptable (see the top of page 2-21). Based on CERCLA, the information included Section 2.8 is correct. The State of Maine risk guidelines are to-be-considered criteria and are not ARARs that the remedy must meet. As indicated in the text on page 2-21 of the OU3 ROD, the State of Maine risk guidelines were considered. And, the selected remedy will meet both CERCLA risk requirements and State of Maine risk guidelines.

8. **Comment: Page 2-28, Section 2.11 COMPARATIVE ANALYSIS OF ALTERNATIVES Overall Protection of Human Health and the Environment.** In Original Comment 40, dated May 16, 2001, SAPL disagreed with the statement that Alternative 2 is as protective of the environment as Alternatives 3 and 4 because the installation of the cover under Alternatives 3 or 4 is anticipated to prevent infiltration of precipitation, which would in turn reduce leaching of contaminants from wastes. This would presumably decrease concentrations in leachate exiting the seeps along the shore. SAPL suggested a text revision. The Navy responded that the alternatives address OU3, and do not address OU6 (management of migration including in the seeps), so the text is appropriate. SAPL understands that OU6 addresses management of migration. The issue is with the statement that Alternative 2 provides the same amount of protection to the environment (and human health) as the other two alternatives. The comparative analysis should not be limited to the boundaries of Operable Unit 3. Contaminated dust, groundwater, or surface water doesn't know or care that it has left the boundaries of a site. The bottom line is that Alternative 2 does not provide the additional protection of a landfill cover. Therefore, it cannot be as protective of the environment or human health as Alternatives 3 and 4. For the same reason, Alternative 2 cannot be considered to have the same long-term effectiveness as Alternatives 3 and 4 (SAPL Original Comment 42)

**Response:** For this Record of Decision the evaluation of Alternative 2 is only for OU3, Source Control, and not OU6, Management of Migration. The Navy believes that Alternatives 2, 3, and 4 provide similar levels of overall protection for human health and the environment (which considers both short-term and long-term protection) as discussed on pages 2-27 and 2-28.

9. **Comment. Page 2-30, Section 2.11 COMPARATIVE ANALYSIS OF ALTERNATIVES Community Acceptance.** SAPL had commented (Original Comment 43) that the second sentence in the paragraph, which implies that community support for capping the landfill is unconditional, is misleading. The Navy responded with additional text, that while helpful in summarizing the nature of the public's response to the PRAP, still does not dispel the notion that the public supports the landfill cover unconditionally. As stated in the Original Comment, the comments received during the public comment period for the OU3 PRAP reveal a great deal of frustration regarding adequacy of the Navy's proposed alternative. The majority of comments state, in effect, that the cap alone is inadequate. It would be more accurate for the ROD to say that community support for covering the JILF with a hazardous waste cover, as proposed in Alternatives 3 or 4, is contingent upon addressing management of migration adequately, appropriately, and in a timely fashion, including testing of the seeps and biota.

**Response:** The text will be revised to read as follows to better summarize community support for capping:

"The community does not support Alternatives 1 and 2 because they do not include a landfill cover. The community supports covering the JILF with a hazardous waste landfill cover (as proposed in Alternative 3 or 4), but indicated a preference to address management of migration of groundwater from the JILF to the offshore concurrently with capping of the JILF."

10. **Comment. Pages 3-3 - 3-5, Summary of Comments Received During the Public Comment Period and Navy Responses. Comment 1:** *A cut-off barrier in addition to the cap (proposed in Alternative 3) is needed at this site to address tidal impacts to the sites, including impacts from migration of groundwater/seeps offshore, from sea level rise, and storm events.* The public expressed significant concern about the potential impacts of sea level rise and increased storm activity. The Navy's response to SAPL's Original Comment 54 and text revisions in effect state that the anticipated sea level rise/storm activity will not be factored into the landfill cover design due to slope stability concerns. Instead, the Navy will rely on monitoring, routine inspections and maintenance of the cover and erosion controls, and 5-year reviews to address public concerns regarding the effects of sea level rise/storm events. While appreciating the need to consider slope stability, SAPL remains concerned with the long-term effectiveness of the remedy, and believes the Navy's approach may prove short-sighted. It would be appropriate to consider slope stability under a variety of conditions during the design phase, including a range for sea level rise values and storm events (including higher storm surges). The effect of rising sea level on the buried waste, including drums, must also be considered.

**Response:** Please see the Navy's response to MEDEP Comment No. 7 dated July 30, 2001.

11. **Comment. Page 3-8, Summary of Comments Received During the Public Comment Period and Navy Responses. Comment 8:** *The remedial alternatives evaluated by the Navy are incomplete and there are a lack of adequate options. Alternative 5 was removed from consideration and there is no consideration of complete or partial removal.* SAPL had previously

commented that the Navy should clarify if the re-evaluation of consolidation of portions of the landfill mentioned elsewhere in the ROD (page 1-3, for example) is the same as the partial removal alternative. The Navy responded that the re-evaluation is discussed in Comment 13 in the Responsiveness Summary and may differ from the FS because the objectives are different. Given that partial removal is specifically mentioned in Comment 8 in the Responsiveness Summary, it would be appropriate to mention in the Navy's response to Comment 8 that partial removal is under consideration.

**Response:** The following paragraph will be added to the end of Comment 8 in the Responsiveness Summary:

"The Navy has agreed to re-evaluate the feasibility of consolidating portions of the landfill (in the Jamaica Cove area and the vicinity of the former location of Mercury Burial Site II) into the existing landfill. The evaluation will be conducted as part of the pre-design investigation and cap design and addresses issues related to both OU3 and OU6."

- 12. Comment. Page 3-10, Summary of Comments Received During the Public Comment Period and Navy Responses. Comment 12:** *Why was a last-minute decision made to separate OU3 and OU6?* SAPL had suggested in Original Comment 60, as well as 61 and 73, that the Navy's response should also acknowledge that the funding schedule played a role in the decision to move forward with the cap at this time. In the response to SAPL's comment, the Navy stated that the funding schedule did not play a role in the Navy's decision to move forward with the cap at this time. SAPL recalls that in at least one public forum, Navy and agency representatives discussing that, since there was no disagreement about the necessity to install a cover at the landfill, that phase of remediation should move forward while the issue of groundwater migrating via seeps was dealt with on a separate track. To hold up the cover until the migration issue was resolved might jeopardize the Navy's funding for OU3 remediation, which was already in the schedule.

**Response:** Funding did not play a role in the Navy's decision to separate the source control and management of migration operable units; therefore, no text revision will be made based on this comment. However, as discussed in public meetings, the Navy can not predict availability of funds in the future. Therefore, it is prudent to consider doing a source control remedy at this time when we know funds are available.

- 13. Comment. Page 3-13 & 3-14, Summary of Comments Received During the Public Comment Period and Navy Responses. Comment 16:** *Without containment of the JILF, daily tidal action and the current groundwater seepage will continue to flush contaminants from the JILF and introduce them into the intertidal nearshore and offshore environments. These represent continued risk to human health and the environment.* As SAPL has stated in previous comments, such as Original Comment 64, and as several people pointed out during the public meeting on the OU3 PRAP, the earlier risk assessments did not evaluate dioxin, because dioxin data had not been collected. The first dioxin results for the JILF were reported in 2000 after the limited soil sampling conducted as part of the drum investigation. This soil sampling does not adequately characterize dioxin contamination in soils or groundwater at the JILF. Therefore, any discussion of risk associated with JILF contamination likely underestimates total risk. Nowhere in the ROD does the Navy add this qualifier to presentation or discussion of risk assessment results. It is particularly important that the Navy do so in the Responsiveness Summary, where the public expresses specific concerns regarding risks associated with OU3.

**Response:** Please see Comment 19 of the Responsiveness Summary for discussion related to dioxin.

14. **Comment.** Pages 3-14 & 3-15, Summary of Comments Received During the Public Comment Period and Navy Responses. **Comment 18:** *The Navy needs to implement a testing protocol for the seeps from the landfill as well as intertidal monitoring to insure that at a minimum the public can be notified if there is any danger of contamination through eating fish or shellfish from the waters around JILF.* SAPL had asked in Original Comment 66 how the three rounds of monitoring data that have been collected so far for OU4 compare with the December 2000 Fish Tissue Action Levels for Screening Evaluations issued by the Maine Bureau of Public Health's Environmental Toxicology Program. The Navy responded that the data had been submitted to the appropriate state agencies and it is the responsibility of the agencies to issue fish advisories if they are required. While SAPL agrees that the States of Maine and New Hampshire are responsible for issuing fish advisories, the Navy should also be responsible for comparing the monitoring data with appropriate and applicable action levels issued by the states. Therefore, the portion of SAPL's original comment regarding comparison of monitoring data with Fish Tissue Action Levels still requires a response.

**Response:** As provided in the Navy's response to SAPL Comment No. 66 dated May 16, 2001, "The data are being evaluated as part of the preparation of the Baseline Interim Monitoring Report in accordance with the Interim Offshore Monitoring Plan." Fish tissue action levels are not appropriate or applicable action levels identified for the interim offshore monitoring. The Navy will be conducting the appropriate screening against action levels for the interim offshore monitoring data.

15. **Comment.** Page 3-15, Summary of Comments Received During the Public Comment Period and Navy Responses. **Comment 19:** *What impact will dioxin concentrations detected in the soil at the JILF and in the sediment, mussel, and juvenile lobster near the JILF have on the results of the risk assessments? Dioxin testing of the seeps wasn't conducted; therefore there is not sufficient information to determine whether dioxins are leaching out of the landfill. Finding dioxin in the seeps could alter the risk level of the site significantly. Also evaluation of the available dioxin data may change the risk assessment conclusions significantly.* The Navy states in its response that performing a new risk assessment with dioxin data would not change the selection of the source control remedy because the cover and institutional controls will prevent contact or use of contaminated media within the landfill itself. However, the selected remedy does not address the migration of contaminants (including dioxin), which was a major component of the public's comments. As currently written, there is nothing in the Navy's response to Comment 19 in the Responsiveness Summary that reassures the public there will be adequate testing for dioxin at OU3 or OU6. Revisions are required.

**Response:** Comment 19 of the Responsiveness Summary refers to Comment 13 of the Responsiveness Summary related to OU6 and seeps and Comment 2 of the Responsiveness Summary for additional information regarding DQOs. These responses combined explain about how management of migration will be handled.

16. **Comment.** Pages 3-15 & 3-16, Summary of Comments Received During the Public Comment Period and Navy Responses. **Comment 20:** *A strong potential exists for future releases from undiscovered steel drums in the JILF. Investigations to date were limited and did*

*not prove that additional drums are not present elsewhere in the JILF.* The Navy's response to SAPL's Original Comment 68 states that the Navy feels that the response to Comment 20 in the Responsiveness Summary is adequate. SAPL maintains that the response to Comment 20 should indicate that the investigation of drums at the JILF has been limited, yet even that limited activity provided ample evidence that previously unknown materials are deposited in the JILF in containers made of corrodible material. In addition, the Navy's response to Comment 20 in the Responsiveness Summary states that "the USEPA, MEDEP, and the Navy all believe that the JILF does not contain hazardous wastes that are in high concentrations or that are likely to move in to the ground water". Since the MEDEP has brought up the issue of potential releases from buried drums in previous comments, we are not sure this is an accurate depiction of the MEDEP's position. It would be more appropriate to state that the Navy believes that there is a low potential for buried drums of hazardous materials, and that any release can be appropriately addressed in a monitoring program for OU3, which is how the Navy responded to SAPL Original Comment 68.

**Response:** The response to Comment 20 in the Responsiveness Summary indicates "Therefore, the Navy believes that there is a low potential for the presence of drums of hazardous materials in the landfill and that any potential future releases can be appropriately addressed in a monitoring program as part of the remedy of OU3."

Please see the Navy's response to MEDEP Comment No. 4 dated July 30, 2001 for additional text changes.

- 17. Comment. Page 3-16, Summary of Comments Received During the Public Comment Period and Navy Responses. Comment 21:** *Most of the quantitative analysis has focused solely on the human health risk at the immediate landfill site. However, there has been little data generated related to the overall health of the ecosystem or whether it will ever be safe to swim in the Piscataqua River.* In Original Comment 69, SAPL took issue with the part of the Navy's response to Comment 21 in the Responsiveness Summary that cites the risk assessments as indicating the offshore area of PHS is safe for human exposure. SAPL suggested that this part of the response should be amended to clarify the dioxin was not evaluated as part of the risk assessments cited. The Navy responded to SAPL's Original Comment with the statement that based on the data, the response is correct and that dioxin has not been identified as a chemical of concern in the offshore. This response is misleading and does not help clarify the situation. Given the public's concern regarding dioxin and the health of the offshore environment, it is not fair or right to say that offshore area is safe without adding the qualifier that the previous risk assessments did not evaluate dioxin.

**Response:** Based on available data and the seafood advisories in place for the Piscataqua River estuary, the response is correct. As indicated in the response to Comment 19 in the Responsiveness Summary, dioxin as related to the JILF will be addressed as necessary through OU3, OU4, and OU6.

- 18. Comment. Pages 3-16 & 3-17, Summary of Comments Received During the Public Comment Period and Navy Responses. Comment 22:** *The sediment in the offshore area of the Shipyard is heavily contaminated with lead and other toxins and there should be no additional contamination from the seeps added to what is already there.* The Navy's response to SAPL's Original Comment 70 refers to the response to SAPL's Original Comment 69. As stated in Comment 16, above, the Navy should qualify its response in the Responsiveness

Summary, stating that dioxin was not evaluated as part of the risk assessment.

**Response:** Discussion related to dioxin is provided in Comment 19 of the Responsiveness Summary. The dioxin data for the offshore are being evaluated; however, the concentrations do not indicate high concentrations that require immediate action. Therefore, no text revisions will be made based on this comment.