



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I
JOHN F. KENNEDY FEDERAL BUILDING
BOSTON, MASSACHUSETTS 02203-0001

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NCBC DAVISVILLE
5090.3a

July 31, 1997

Mr. Philip Otis
U.S. Department of the Navy
Northern Division - NAVFAC
10 Industrial Highway
Code 1811/PO - Mail Stop 82
Lester, PA 19113-2090

Re: Response to Comments for the Feasibility Study Report
Site 7 Calf Pasture Point
Former Naval Construction Battalion Center, Davisville, RI

Dear Mr. Otis:

The Environmental Protection Agency, Region I (EPA) has reviewed the above captioned document, dated July 17, 1997 pursuant to § 7.6 of the NCBC Federal Facility Agreement (FFA).

The Navy presented a revised Conceptual Long Term Monitoring Plan (CLTMP) at meeting on July 22, 1997 that should address many of our ongoing concerns with this site. The RTC for the FS uses the CLTMP as the answer to many of our comments. EPA agrees that the use of site specific data gathered during the CLTMP, with modification, will provide the flexibility to address most of our concerns with the stability of the plume. EPA expects to provide the Navy comments on the CLTMP by August 22, 1997.

The Navy has also agreed to remove all references to the SUTRA and AT123D modeling in the RI/FS. This will enable the Navy to rely on site specific data to support the conclusions of the RI. However, the Navy has not yet gathered data in the near shore to support the conceptual model of the plume discharge areas. Additional investigation will need to be performed during the CLTMP design.

In our letters dated June 13, 1997 concerning the draft PP and dated July 1, 1997 concerning the Interim RTC for the RI/FS for this site, EPA stated that the administrative record for the OU will not be complete until the Navy submits a final RI/FS. We requested a schedule as to when the revised RI/FS will be submitted, but have not yet received it. Additionally, the Redlined Proposed Plan (PP), dated 2 July, indicated the PP would be issued on August 1, 1997 and an informational meeting would be held on the 13 of August with a hearing on the 20th of August. Please provide a schedule for this site.

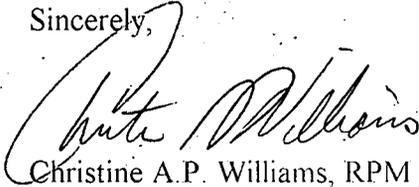


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Please be advised that the RI/FS for this OU will not be considered complete until the Navy submits RI/FS documents which are satisfactory to EPA. The complete administrative record for this OU must be available for public review and comment at the time the PP is issued. Therefore, EPA does not approve the issuance of the PP on August 1, 1997.

If you have any questions, or would like to set up a meeting, please contact me (617) 573-5736.

Sincerely,



Christine A.P. Williams, RPM
Federal Facilities Superfund Section

Enclosure

cc: Richard Gottlieb, RIDEM
Bill Brandon, EPA
Jayne Michaud, EPA
David Peterson, EPA
Forest Lyford, USGS
Tim Prior, USFWS
Walter Davis, NCBC
Marjory Myers, Narragansett Tribe
Marilyn Cohen, ToNK
Howard Cohen, RIEDC
Bryan Wolfenden, RI RC&DC, Inc.
George Horvat, Dynamac
Jim Shultz, EA

EPA Responses to Navy RTC on Draft Final Feasibility Study Calf Pasture Point (Site 07)

GENERAL COMMENT ON DRAFT FINAL FS

1. The Navy should review the FS report and remove all text, tables, etc., associated with the SUTRA and the AT123D models (e.g., Sections 1.4.6.2, 1.4.6.3, etc.). In addition, any estimations, predictions or conclusions based on the model simulation should be removed from the report. Instead of relying on a model simulation of questionable basis, the Navy should apply the site-specific data to evaluate the discharge of contaminated groundwater to the offshore environment. This may include contaminant concentrations in the near shore wells, borehole logging results by the USGS, geologic formation data (e.g., hydraulic gradient, hydraulic conductivity, grain size, salinity, etc.) and contaminant characteristics. This use of site-specific data will result in a conservative approach that is considered more reliable than the results of the model simulations.

SPECIFIC COMMENTS ON DRAFT FINAL FS AND ARAR TABLES

1. Remove section 2.2.5 - Technical Impracticability Waivers at Site 07, waivers are not being requested.
2. Section 5.2, ¶ 2 - EPA believes that none of the proposed treatment alternatives 3-5 will meet chemical-specific ARARs for all COCs across the site. The paragraph does not clearly state this. Please clarify by stating, "Alternatives 3-5 will not meet ARARs for all COCs across the site. If any one of the Alternatives 3-5 are proposed as the final remedy of the Davisville, NCBC, Calf Pasture Point Site 7, a Technical Impracticability Waiver will be requested."
3. Section 5.2, ¶ 3, 2nd sentence - Add "2" after "Alternative."
4. Same sentence - states no other wells will be dug - this is not accurate, the LTMP clearly states that additional wells will be installed at the site.

II. ARARs Tables

5. Table 2-2, p 1 - Need to move the Clean Water Act, Section 404 citation from the Action-specific table (Table 3-1, p. 1) to the location-specific ARAR table. Under Status, since direct work in wetlands (freshwater or tidal) is proposed then the statute would be **Applicable**.

Wetlands/ Water Resources (Federal)	Clean Water Act, Section 404, 33 USC 1344; 40 CFR part 230	Applicable (or Relevant and Appropriate)	Prohibits the discharge of dredged or fill materials into a water of the U.S. if there is a practicable alternative.	Any impacts to wetlands will be minimized and mitigation, including mitigation of existing wetlands mplemented.
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6. Table 2-2, p.1 - Add:

Wetlands/ Water Resources (Federal)	Rivers and Harbors Act, 33 USC 403; 33 CFR Parts 320-323	Relevant and appropriate	Prohibits unauthorized obstruction or alteration of navigable waters.	The environmental standards in the Act will apply to any actions in tidal waters.
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7. Table 2-2, p.2 - Wetlands (State) - citation is: Rhode Island Freshwater Wetlands Laws (RIGL 2-1-18 *et seq.*); RIDEM Rules Governing the Enforcement of the Freshwater Wetlands Act (CRIR 12-100-003). Under Status, since direct work will be done in wetlands (freshwater) is proposed then the statute would be **Applicable**.

8. Table 2-2, p.2 - Endangered Species Act synopsis should read "...existence of federally-listed endangered..." and the Action to be Taken should be changed to "...RIDEM indicates that the Least Tern has been identified... If this species is identified at the landfill or the adjacent wetland... In addition, creation of wetlands along the harbor may provide habitat for this species." Unless the Least Tern actually occurs at the Site, the status should be **Relevant and appropriate**. This is consistent with the ARARs table for the nearby Allen Harbor Landfill.

9. Table 2-2, Page 2, eliminate reference to the Migratory Bird Treaty Act as an ARAR. Issues regarding migratory birds are addressed under the Fish and Wildlife Coordination Act.

10. Table 2-2, Page 2, add:

Coastal Zone (Federal)	Coastal Zone Management Act (16 USC 3501 <i>et seq.</i>)	Applicable	Must conduct activities in a manner consistent with the approved state management program.	The substantive requirements of this Act will be met.
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Historic Preservation (Federal)	National Historical Preservation Act, 16 USC 469 <i>et seq.</i>	Applicable	Requires protection of significant scientific prehistorical, historical or archaeological data, must recover and preserve artifacts.	Portions of Site 07 have been identified as potential archeologically- significant areas.
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11. Table 2-2, page 3 - Coastal Zones (State) citation add after "Regulations" "(CRIR 04-000-010)".

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12. Table 2-2, Page 3 - Add (If any of the three identified species actually occur at the Site, the status should be **Applicable**. This is consistent with the ARARs table for the nearby Allen Harbor Landfill.):

Endangered Species (State)	Rhode Island Endangered Species Act (RIGL 20-37-1 <i>et seq.</i>)	Relevant and appropriate	Remedial actions may not jeopardize the continued existence of state-listed endangered or threatened species, or adversely modify or destroy their critical habitats.	Information provided by RIDEM indicates that Grasshopper Sparrow, Upland Sandpiper, and Least Tern have been identified in the Davisville/Quonset area. If any of these species are identified at the landfill or the adjacent wetland, appropriate measures will be taken during construction to ensure that the remedial action does not adversely affect the species or its habitat. In addition, the final cap and the created wetlands may provide habitat for these species.
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13. Table 3-1: Add:

Monitoring (Federal)	Resource Conservation, and Recovery Act (RCRA) 42 USC 6901 <i>et seq.</i>	Relevant and Appropriate	Outlines specifications for the performance of hazardous waste storage, treatment, and disposal facilities for hazardous waste	Substantive RCRA requirements are to be met pertaining to wastes disposed of prior to 1980 and to RCRA listed or characteristic waste generated during proposed monitoring activities.
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RCRA - Generator and Handler Requirements, 40 CFR 260-261	Relevant and Appropriate	Establish standards for listing and identification of hazardous waste.	For any materials generated during monitoring well installation, hazardous waste determinations will be performed, and the wastes will be managed in accordance with these regulations, if necessary.
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RCRA - Subpart F - Corrective Action for Solid Waste Management Units, 40 CFR 264.101	Relevant and appropriate	Ground-water monitoring/corrective action requirements for units where hazardous waste was disposed of prior to 1982.	Monitoring standards will be met through the implementation of the ground-water
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14. Table 3-1, Page 1 - Add the Federal Monitoring provisions listed for Alternative 2 (comment 13).

15. Table 3-1, Page 1 - Move Action-specific citation for the Clean Water Act to the Location-specific table (do this for all the other Alternatives).

16. Table 3-2, Page 1 - Add:

<i>In-Situ</i> Treatment (Federal)	RCRA - Subpart Q - Chemical, Physical, and Biological Units, 40 CFR 264.101	Relevant and appropriate	Establishes standards, for utilizing biological treatment in order to protect human health or the environment.	Remedial systems will be designed and operated to meet the substantive provisions of the regulations.
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17. Table 3-2, Page 1 - Add the Federal Monitoring provisions listed for Alternative 2 (comment 13).

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18. Table 3-2, Page 1 - Move Action-specific citation for the Clean Water Act to the Location-specific table (do this for all the other Alternatives).
19. Table 3-3, Page 1 - Add the Federal Monitoring provisions listed for Alternative 2 (comment 13).
20. Table 3-3, Page 1 - Change Status of RCRA provisions to **Relevant and appropriate**.
21. Table 3-3, Page 1 - Remove RCRA (40 CFR 263), RCRA (40 CFR 268), and RCRA (40 CFR 170,171) - Transportation and off-site disposal provisions are not ARARs.
22. Table 3-3, Page 2 - RI Hazardous Waste Management Act - change status to **Relevant and appropriate**.
23. Table 3-3, Page 2 - Remove RI Hazardous Substance Community Right to Know Act - not an ARAR.
24. Table 3-3, Page 2 - RI Refuse Disposal Law - change status to **Relevant and appropriate**.
25. Table 3-3, Page 3 - Remove Clean Air Act (40 CFR 50) - not an ARAR. Covered by State regs.
26. Table 3-3, Page 3 - Remove Clean Air Act, Sec 5, 171-178 - covered under state regulation.
27. Table 3-3, Page 4 - Remove Clean Air Act, Sec 5, 160-169A - covered under state regulation.
28. Table 3-3, Page 7 - Move Action-specific citation for the Clean Water Act to the Location-specific table (do this for all the other Alternatives).
29. Table 3-4, Page 1 - Add Federal *In-situ* Treatment provision (comment 16).
30. Table 3-4, Page 1 - Add the Federal Monitoring provisions listed for Alternative 2 (comment 13).
31. Table 3-4, Page 1 - Move Action-specific citation for the Clean Water Act to the Location-specific table (do this for all the other Alternatives).
32. Table 3-5, Page 1 - Add the Federal Monitoring provisions listed for Alternative 2 (comment 13).

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33. Table 3-5, Page 2 - Remove RCRA (40 CFR 263), RCRA (40 CFR 268), and RCRA (40 CFR 170,171) - Transportation and off-site disposal provisions are not ARARs.
34. Table 3-5, Page 3 - RI Hazardous Waste Management Act - change status to **Relevant and appropriate**.
35. Table 3-5, Page 3 - Remove RI Hazardous Substance Community Right to Know Act - not an ARAR.
36. Table 3-5, Page 3 - RI Refuse Disposal Law - change status to **Relevant and appropriate**.
37. Table 3-5, Page 4 - Remove Clean Air Act (40 CFR 50) - not an ARAR. Covered by State regs.
38. Table 3-5, Page 4 - Remove Clean Air Act, Sec 5, 171-178 - covered under state regulation.
39. Table 3-5, Page 5 - Remove Clean Air Act, Sec 5, 160-169A - covered under state regulation.
40. Table 3-5, Page 8 - Move Action-specific citation for the Clean Water Act to the Location-specific table (do this for all the other Alternatives).
41. Table 3-6 make appropriate changes based on above comments.

The following comment is made to request clarification of the Navy on a statement made in the RTC:

8. Comment 89, Page 11 &12, Paragraph 3 on both pages. In the RTC it is stated that "Because chlorinated VOC were present, the deeper location was selected for the screened interval." Available data indicate that VOC were not detected at the location of well MW07-24. Perhaps the statement should be "Because chlorinated VOC were not present....." Clarification is needed.

The following **draft** responses to the Navy's RTC dated 17 July 1997 are offered at this time, even though EPA agrees that changes to the CLTMP should be discussed as part of the RD rather than in the FS, since the FS only offers a conceptual LTMP not the final version.

4. Comment 2, Part C, Page 5, Paragraph 1. In response to EPAs suggestion to install an

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additional bedrock well in the location of the existing MW07-11D, the Navy responded that it did not consider MW07-11R "...because a more informative approach would be to monitor closer to the interpreted plume boundary and look for trends in those wells (i.e., increasing concentrations in those wells may indicate a need to install MW07-11R in the future, whereas continued low/non-detect VOC concentrations in those wells would confirm that the site is not posing a risk". This approach is reasonable assuming there is an adequate upgradient monitoring point for comparison and continued monitoring. Figure 1-21 of the Draft Final Feasibility Study report, shows the total chlorinated VOC detected in groundwater samples in the bedrock wells. As can be seen from this figure and Figure 1-18, there is no bedrock well located upgradient of the MW-11 location (see Figure 1-18; MW07-09R and MW07-21R are shown as wells which are side-gradient to the high concentration of total chlorinated VOCs detected in MW07-05R) which could be used for comparison of groundwater concentrations.

Secondly, based on the information presented in Figures 1-18 and 1-21, there is a strong potential for the "axis" of bedrock groundwater plume to be migrating between MW07-09R which is non-detect and MW07-21R which is 8,390 µg/L. Based on the scale presented, these two wells are located approximately 700 feet apart. In addition, the upgradient monitoring wells in the deep layer, MW07-09D and MW07-27D had 11,510 µg/L and 14,990 µg/L total chlorinated VOCs, respectively (see Figure 1-20). Since these two wells are screened directly above the bedrock (see Figure 1-10), it is likely that present and/or future contamination of the bedrock in the same area and downgradient is inevitable. It is recognized that the results of MW07-09R were non-detect in the last round of sampling; however, only one round of data from MW07-09R has been collected. Since a single data point is not highly reliable or conclusive, this leaves some uncertainty regarding the potential contamination in MW07-09R.

If a bedrock well is not placed in the vicinity of MW07-11D, the migration of the plume toward Narragansett Bay may go undetected. In addition, the dynamics of the salt water wedge which has been observed in the Allen Harbor/Entrance Channel onshore area may occur along the coastline of Narragansett Bay. While the presence of the silt layer may tend to inhibit the upward mobility of the contaminants in the bedrock groundwater to the deep or shallow layers, it is not known if the silt layer observed in MW07-16D, MW07-18D, and MW07-11D is continuous to the shoreline. Due to both the information and the uncertainties presented, it is strongly suggested that the Navy reconsider its decision.

6. Comment 2, Part D, Page 5, Paragraph 4. The comment, as posed by the EPA, concerned sediment sampling in both the onshore (i.e., wetlands area) and offshore environment. The Navy only responded to the offshore element of the comment; however in a similar question posed by the EPA in the comments regarding the Draft Final Feasibility Study report (Comment 144), the Navy stated "The Navy recognized the need for additional data for the interior wetland area and is considering additional sampling in this area as part of the 'Confirmatory Sampling' phase of the revised version of the conceptual LTMP being presented on 22 July 1997. If these data indicate that VOC may be discharging to the interior wetlands, then the Navy will include wetlands

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samples (possible sediment and/or surface water) to the monitoring program." The latest Conceptual LTMP (dated 7/17/97) includes the collection of one sediment sample from the wetlands area.

Since the discharge of groundwater to the wetlands area may be seasonally-dependent, the Navy will need to monitor the water levels in the wells and piezometers on a frequent basis to demonstrate that groundwater is not discharging to this area. In addition, since surface water and sediment samples have not been collected from the wetland area in the past, samples should be collected and analyzed to provide baseline information. If it is determined that contaminated groundwater is discharging to the wetlands area, additional sampling will be warranted as stated in the Conceptual LTMP. Further efforts to pinpoint adequate sample locations with respect to the interior wetland will be discussed in the CLTMP review.

8. Comment 89, Page 11 & 12, Paragraph 3 on both pages. Based on the borehole logging results of certain wells by USGS which indicated the likely depth to freshwater which originated from upgradient contaminated areas, EPA questioned whether the monitoring wells should be re-installed to place the well screens in the path of the freshwater. EPA's responses are discussed individually below, based on the Navy's responses:

MW07-10: As a result of the silt layer present at this location, it is agreed that the re-installation of this well is not warranted.

MW07-12: As a result of the silt layer present at this location, it is agreed that the re-installation of this well is not warranted.

MW07-23: The Navy states that the collection of seep samples (proposed under the Conceptual Long Term Monitoring Plan) and existing information would adequately represent site risks with respect to contamination near MW-23, and that the placement of an additional well in the subject interval in question would only help to define the extent of the plume. While this may be true, the further definition of the plume at this site is beneficial since specific preferential discharge points to the near shore are not known. As can be seen from the historical data, the shallow groundwater data at MW-23 has essentially shown non-detect (with the exception of acetone which is questioned as a laboratory contaminant). If the USGS log data is accurate, then the optimal shallow groundwater zone was not monitored. If a new well was placed at this location, screened in the proper interval, and contamination identified, this would redefine the shallow groundwater plume in this area and better define potential preferential discharge points to the near shore. While the collection of seep samples will help to shed light on the locations of preferential flow paths and discharge points, the collection of shallow groundwater in the optimum interval is also beneficial and would likely focus CLTMP efforts.

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Additionally, although it was agreed that the re-installation of MW07-10 and MW07-12 is not warranted, it should be noted that these two wells, in combination with MW07-23, can be seen as 3 wells "in series" along the southwestern portion of the site from Figure 1-4 of the Draft Final Feasibility Study Report (note that MW07-25D/R could not be logged by USGS due to a stainless steel casing). Since the borehole logging indicates that all three wells may not be screened in the optimal location, the installation of one additional well near MW07-23 deserves consideration to ensure that the apparent preferential contaminant pathway is adequately defined prior to discharge to the nearshore area or Allen Harbor.

MW07-24: It is agreed that the screening depth of MW07-24D will be re-evaluated when the results are obtained from MW07-13 and MW07-11. If the borehole logging results for MW07-13 and MW07-11 indicate that these wells are screened at the appropriate depth, then these wells could be utilized in the LTMP to provide data on the migrating plume. However, if these wells are determined not to be screened at the appropriate depth, or if the future concentrations in MW07-13 and MW07-11 reach levels of concern, then the screening depth of MW07-24D will need to be re-evaluated.