



DEPARTMENT OF THE NAVY

ENGINEERING FIELD ACTIVITY, NORTHEAST
NAVAL FACILITIES ENGINEERING COMMAND
10 INDUSTRIAL HIGHWAY
MAIL STOP, #82
LESTER, PA 19113-2090

IN REPLY REFER TO

5090
Code EV23/CF
March 3, 2006

Ms. Kimberlee Keckler, Remedial Project Manager
Federal Facilities Superfund Section
USEPA Region 1
1 Congress Street, Suite 1100
Boston MA, 02114-2023

Mr. Paul Kulpa, Project Manager
Office of Waste Management
Rhode Island Department Of Environmental Management
235 Promenade St.
Providence Rhode Island, 02908-5767

Dear Ms. Keckler / Mr. Kulpa:

SUBJECT: DRAFT FOCUSED SITE INSPECTION REPORT, SURFACE WARFARE
OFFICERS SCHOOL (SWOS), STUDY AREA 20, NAVAL STATION
NEWPORT, NEWPORT, RHODE ISLAND

The Navy's responses to EPA and RIDEM comments on the subject report are provided as enclosures (1) and (2). A Draft Final Report will be submitted shortly incorporating changes based upon these comments and responses. The Draft Final Report will then serve as the Final Report if no further changes are necessary.

The Navy's position concerning this site is to administratively close it and merge the site with OFFTA Site 009. In the recent regulatory comments, EPA did not take issue with the Navy's recommendation, but RIDEM did. We request that EPA and RIDEM review the enclosed responses and then provide us with your updated position on this issue.

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If you have any questions, please do not hesitate to contact me at (610) 595-0567 extension 142.

Sincerely,



CURTIS A. FRYE, P.E.
Remedial Project Manager
By direction of the
Commanding Officer

Enclosures:

1. Navy Responses to Comments from USEPA Region I on the Draft Focused Site Inspection Report, Surface Warfare Officers School, Study Area 20 (Comments Dated November 17, 2005)
2. Navy Responses to Comments from RIDEM on the Draft Focused Site Inspection Report, Surface Warfare Officers School, Study Area 20 (Comments Dated December 9, 2005)

Copy to:

C. Mueller, NSN
S. Parker, TtNUS
J. Stump, Gannet-Fleming

**Response to U.S. EPA Comments
Draft Focused Site Inspection, Surface Warfare Officers School
(Comments Dated November 17, 2005)**

<u>Page</u>	<u>Comment</u>
1. Table 6- 4	<i>The list of chemicals of potential concern (COPCs) in groundwater does not include dibenzofuran or acetone even though these two chemicals are selected as COPCs in Table 6-1. Dibenzofuran was detected in MW05 above the screening level according to the analytical results presented in Appendix D2. Acetone was detected in MW01, MW05, and MW05 field duplicate above the screening level according to Appendix D2. In addition, section 4.2 identifies acetone and dibenzofuran concentrations detected above project action levels. Section 6 indicates that acetone was eliminated as a COPC because of its status as a common laboratory contaminant and that dibenzofuran was eliminated as a COPC because it was only detected in one groundwater sample slightly above the screening level. The screening Table 6-1 specifies that these chemicals are COPCs and does not offer the explanation presented in Section 6. Therefore, Table 6-4 should be revised to include dibenzofuran and acetone as COPCs in groundwater to be consistent with the rest of the SI report. Given there are only six groundwater samples, it does not seem prudent to eliminate dibenzofuran as a COPC on the basis that it only exceeded the screening level in one of the six samples.</i>

Response:

An explanation addressing why acetone was eliminated as a COPC will be provided in Table 6-3. Section 6 and Table 6-4 will be revised to reflect dibenzofuran being added as a site COPC, as indicated in Table 6-3.

2. p.6-3, §6.0 *Lead is erroneously identified as a groundwater COPC. It appears as if lead is listed instead of manganese.*

Response:

Concur. This will be revised.

3. p.7-3, §7.0 *The SI recommends that continued investigation or remediation of SWOS and the area under Taylor Drive be conducted in conjunction with OFFTA. Is the Navy Tiger Team also reviewing SWOS documents so that it can be part of their review?*

Response:

The Navy Tiger Team is reviewing SWOS documents in conjunction with remedial plans for the OFFTA site.

Response to RIDEM Comments
Draft Focused Site Inspection, Surface Warfare Officers School
(Comments Dated December 9, 2005)

1. *Section 1.2.3, Previous Site Investigation and History.*
Page 1-3.

This section of the report notes that two earlier studies were performed. The report must note whether any samples were collected in these studies and if so the results of these sampling efforts must be included in the contaminant distribution section.

Response:

Section 1.2.3.2 and Section 1.2.3.3 present details of the two earlier studies that were performed, including an overview of the sample results. The Final Report and Risk Assessment for Worker Exposure at the SWOS Site, cited in the text, will be provided as a separate appendix in the Revised Focused SI Report.

2. *Section 1.2.3, Previous Site Investigation and History.*
Page 1-3.

During the construction of the SWOS building petroleum-contaminated soil was observed. This should be noted in the history section.

Response:

Details addressing the detection of oily soils during soil excavation activities associated with the construction of the SWOS Applied Instruction Building are presented in Section 1.2.3.3 under the Previous Site Investigations and History portion.

3. *Section 1.2.3.1, Coaster Harbor Island UST Remedial Investigation Report.*
Page 1-3.

One of the functions of the Focus Investigation Study was to determine the source of contamination at SWOS. In order to discount the known releases from the USTs on the island additional details must be provided for these other potential sites. This information must include, but not be limited to, maps depicting the locations of all monitoring wells, soil samples, etc. for each source area, depth of observed contamination, type of contamination (heavy oil, light fuel oil, etc), maps depicting extent of known contamination, maps depicting location of known utilizes lines in these areas and at SWOS, storm drains, electrical lines, etc. In addition, specific concerns for each site must be addressed. As an illustration, for Structure 74 please depict the location of the underground utilities and note whether the storm drain at firefighter extend up into the contaminated zone of Structure 74, is there any evidence that fuel oil enter into the storm drain, were wells or borings taken along the length of the storm drain in the vicinity of Structure 74, the report notes that contamination was found slightly north of Structure 74, were additional wells located north of this point, etc?

Response:

In accordance with the scope of the Focused Site Inspection (SI), a detailed document review was conducted to further determine the source of contamination at the SWOS site. A summary of the findings has been presented in Section 1.2.3. For specific information addressing Structure 74 or other potential sources of contamination to the area along Taylor Drive or the SWOS site, including monitoring well locations, soil samples and sample results, please refer to the Coasters Harbor Island UST Remedial Investigation Report (Halliburton NUS, 1995), cited in

the Focused SI report. For ease of reference, the storm drain lines will be added to Figures 1-2, 4-1, and 4-2. A further review of available documentation including the Underground Storage Tank Closure Report Tank 10, Structure 74 (EMAC Engineers, Inc., 2005) and Draft Site Investigation Report Structure 74 (LFR Levine Fricke, 2005) will be conducted to identify any evidence of downgradient contaminant migration from Structure 74, which has been closed, remediated and removed.

4. *Section 1.2.4 Potential Adjacent Contamination Sources.
Page 1-6, Paragraph 1*

The report notes that there was an abandoned fuel line between Building A138 and 86. Please provide additional information concerning these buildings, including, the function of these structures, (were they a power plant, boiler house, pump house, etc), potential areas of concern associated with the buildings, such as underground storage tanks, vaults, etc.

Response:

Details of building use and potential areas of concern along the abandoned fuel line can be found in the Coasters Harbor Island UST Remedial Investigation Report (Halliburton NUS, 1995), cited in the Focused SI report. Additional information attained from the review of the Underground Storage Tank Closure Report Tank 10, Structure 74 (EMAC Engineers, Inc., 2005) will be incorporated into the Revised Focused SI report. Site relevant information will be clarified in Sections 1.2.3.1 and 1.2.4, specifically.

5. *Section 1.2.4 Potential Adjacent Contamination Sources.
Page 1-5, Paragraph 4*

The report notes that it is assumed that groundwater at Structure 74 flows towards the west. Another section of the report notes that five wells were installed in the vicinity of this structure. Was water level measurements taken, and if so was a water contour map generated? Finally, the report must depict the location of underground utilities at this structure, the samples (if any) taken at these utilities and the measures which were taken to determine if contamination spread via these utilities.

Response:

Please refer to the response to RIDEM's Comment 3 and the Coasters Harbor Island UST Remedial Investigation Report (Halliburton NUS, 1995), cited in the Focused SI report, for details. The Underground Storage Tank Closure Report Tank 10, Structure 74 (EMAC Engineers, Inc., 2005) will be reviewed and relevant site information included for reference.

6. *Section 1.2.4 Potential Adjacent Contamination Sources.
Page 1-5, Paragraph 4*

The report notes that it was presumed that structure 74 contained heating oil, but the type of heating oil could not be determined. If fuel lines from Structure 74 connect to a boiler house or powerhouse one should be able to find out what type of oil was used. In regards to the type of heating oils please explain why a chemist could not make this determination from the GC (i.e. was more than one oil present, which complicated the GC, etc).

Response:

Available information is restricted to that provided in the Coasters Harbor Island UST Remedial Investigation Report (Halliburton NUS, 1995) and the Underground Storage Tank Closure Report Tank 10, Structure 74 (EMAC Engineers, Inc., 2005). The type of fuel oil stored at Structure 74 will be specifically referenced in the Revised Focused SI report.

7. *Section 1.2.4 Potential Adjacent Contamination Sources.
Page 1-6, Paragraph 1*

Please depict the location of Building 84 on the map.

Response:

Building 84 is depicted on Figure 1-2.

8. *Section 1.2.4 Potential Adjacent Contamination Sources.
Page 1-6, Paragraph 1*

The report notes that fuel tank were located behind Build 138. Is this Building A138? If not please depict the location of this Building on a map.

Response:

Records will be reviewed and Figure 1-2 will be clarified.

9. *Section 1.2.4 Potential Adjacent Contamination Sources.
Page 1-6.*

The report notes that there were tanks at A138. It is not clear if these tanks were the listed UST noted in Section 1.3.3.1. If these were different tanks were they ever investigated?

Response:

Records will be reviewed and relevant text and figures will be clarified.

10. *Section 1.2.4 Potential Adjacent Contamination Sources.
Page 1-6.*

"Recent maps do not depict either of these structures, indicating that they may have been closed and no longer exist."

The lack of a structure on a Navy map should be interpreted that the structures may have been closed and no longer exist. If the structures were closed the Navy should have some documentation that they underwent closure. To determine whether they currently exist is a simple matter to inspect the site for the presence of these structures. Therefore, the Navy should inspect these sites to see if they are still present (a metal detector may have to be employed for the tanks) and provide information indicating that they have been closed.

Response:

A site reconnaissance will be conducted and records reviewed to confirm the status of the structures.

11. *Section 3.2.4 Groundwater Samples.*
Page 2-6.

The report states that the wells were tested for NAPL. Please indicate in what step of the process this test was performed, i.e. before development, after development, before purging, after purging, etc.

Response:

A description of when and how the wells were tested for NAPL will be added to Sections 2.3.3 and 2.3.4 accordingly.

12. *Section 3.3.2.1 Groundwater Gradient.*
Page 3.5.

The report has not stated whether any of the wells at SWOS was affected by tidal action. Please note in the report whether tidal measurements were made on any of the wells, and/or whether there is any information indicating that these wells are affected by the tides.

Response:

Tidal measurements were not made in any of the wells installed at SWOS during the Focused SI. In January 2006, the Navy conducted a synoptic water level round at the SWOS site which included monitoring wells at the SWOS site as well as available monitoring wells and piezometers at the OFFTA site to further define the hydraulic gradient and a possible tidal relationship of the sampled wells. The results of the water level round will be presented in the Revised Focused SI. As a point of information, the wells located on the southern extent of OFFTA, immediately north of Taylor Drive and the SWOS site, have been determined to not be influenced by tidal fluctuations.

13. *Section 4.1.1. Contaminant Distribution.*
Page 4.1

Petroleum contaminated soil was observed during the construction of SWOS. This section should note this. Further, the location and depth of this soil contamination must be depicted on a map.

Response:

Concentrations of TPH were detected above RIDEM I/C Direct Exposure Criteria in samples collected during the SWOS Applied Instruction Building construction. An overview of the analytical results are presented in Section 1.2.3.3 and are detailed in the Final Report and Risk Assessment for Worker Exposure at the SWOS Site, which is cited in the text and will be provided as a separate appendix in the Focused SI Report. Section 4 presents an evaluation of the contaminants found in samples collected in support of the Focused SI. Data from the Final Report and Risk Assessment for Worker Exposure at the SWOS Site will be reviewed and if possible, the location and depth of soil contamination will be incorporated into a current figure.

14. *Section 4.1.1. Contaminant Distribution.*
Page 4.1

Elevated levels of TPH (1000-2000 ppm) were found in surface and subsurface soils found at the southern end of the site. The report should include an expanded discussion of these findings, i.e. whether the contamination observed at this location is linked to contamination observed at the northern end, whether there is a separate source area, etc.

Response:

As depicted on Figure 4-2, elevated levels of TPH were not observed in soil samples collected south of SB07.

15. *Section 4.1.1. Contaminant Distribution.*
Page 4.1

Elevated levels of TPH were observed at the eastern end of the site in the debris area. The report should note this and indicate whether the contamination observed at this location is contiguous with the contamination observed at the northern end or represents a separate source area.

Response:

The table in Appendix B-1 will be modified to show fill areas observed in soil borings on the SWOS site. The fill will be depicted on Figure 4-2 using a separate symbol to clearly represent the TPH/fill relationship.

16. *Section 4.1.2. Subsurface Soils.*
Page 4.1

Subsurface soils were primarily collected at either the water table or at the interval between the water table and the ground surface. This approach is acceptable for this limited investigation, which was designed to determine whether contamination is even present. However, it does not allow one to determine the nature and extent of contamination. At the OFFTA site it is known that contamination was found below the water table. Therefore, this section should clearly note that the full vertical, and in some cases, horizontal extent of contamination was not ascertained in this study.

Response:

As stated in the executive summary, "The scope of the Focused SI was twofold: 1) to determine the source of the soil contamination (oily soils) encountered at the north and east portions of the property during the 2003 construction of the SWOS Applied Instruction Building, and 2) to identify any other contaminants that may be present at the site that may pose risk to potential human receptors." The Focused SI was conducted in accordance with this scope.

17. *Section 4.1.1.4 Metals.*
Page 4.3 Paragraph 2

Please include a statement in this section, which notes that lead was found at a concentration of 361 ppm in a surface soil sample on the northeastern side of the site.

Response:

Analytical results are provided in detail in Appendix D of the Focused SI report and Figure 4-2 highlights lead detected in the soil at concentrations greater than 150 mg/kg. The location in question (SB03) does not have a particular significance to the site as it is one location of several exceeding this criteria, as noted on the figure. It will not be called out specifically in the text; this station is covered with asphalt and poses minimal risk.

18. Section 4.2.1.4 Metals.
Page 4.5, Paragraph 3.

"Most notably lead was found at concentrations above 150 ppm in samples from borings where...."

Please modify the above as follows:

Most notably lead was found at concentrations above 150 ppm (range 150-1400) ppm in samples from borings where...

Response:

Concur. The text will be revised accordingly.

19. Section 4.3 Contaminant Distribution Summary Groundwater Gradient.
Page 4.8.

This section states that the surface soil data is meaningless since the soils have been reworked. The first step in the analysis of the data is to determine if any surface soils data indicates that there is a release area. If a release area is apparent the next step is to evaluate the subsurface soil data to see contaminated soil in the subsurface correspond to contaminated soil in the surface. If there is no connection between the two, the report should note this and then comment on possible reasons for this disconnect, such as reworking of the soil, the source not being on SWOS, etc. The section of the report must be modified to include this approach and analysis. Statements concerning the usefulness of surface soil data cannot be made until the results of this approach have been made.

Response:

The text does not state that the data is meaningless. As written, the text properly makes the point that, in an area where the surface soil has been subjected to paving, then demolition, then construction, then repaving, one cannot rely on the presence of PAH's in surface soil data alone to determine a source area. However, the text will be revised to more clearly identify the uncertainties and complexities of analytical soil data for properties that undergo repeated construction.

20. Section 7.0 Conclusions,
Page 7.1, Paragraph 1.

The report stated that the concentrations of arsenic and other metals could be considered background since construction at the site has resulted in mixing of surface and subsurface soil. This is not the case as the concentration of arsenic and other metals exceeds the value in the accepted background study. Further, the Navy has not presented any data in support of the position that the observed concentrations falls within the range of subsurface back ground data (statistically of the two data sets, evaluation of soil logs to determine whether surface soil are really composed of subsurface soils, etc). Therefore, due to that above, it is incorrect to imply that the concentrations of metals observed at the site are reflective of background and these statements must be removed from the report.

Response:

Detected concentrations of metals were compared to a Background Soil Investigation for OFFTA (TtNUS, 2000). Statements regarding detected concentrations of metals within background concentrations are considered to be correct and will remain. However, the text concerning the likelihood of soils being mixed during construction will be reviewed and revised for clarity.

21. *Section 7.0 Conclusions,
Page 7.2, Paragraph 4.*

The section of the report states that the contamination was primarily found at the northern end of the site near OFFTA and should be considered contiguous with OFFTA. Contamination was also found at the southern end of the site. The Navy has not linked the contamination found at this location with the contamination observed in the northern end. As such it represents a separate source area from the northern end, one that, by its distance, is not linked to OFFTA. The report should note this and state that a separate source area was found on SWOS, which requires additional investigation.

Response:

Contamination observed on the SWOS site is similar in nature to that documented on the OFFTA site. Specifically, petroleum contamination appears to be contiguous and the Navy has proposed that the two sites be linked and the contamination be addressed together. Lead, while not contiguous to OFFTA, was also found at OFFTA, further reinforcing the similarities between the two sites. Therefore, the selected remedial action(s) will be appropriate for both properties. Chemical constituents detected at the southern portion of the SWOS site are not considered to be indicative of chemical releases.

22. *Section 7.0 Conclusions
Page 7.2, Paragraph*

This section of the report notes that lead, above regulatory standards, was found at the eastern end of the site and this contamination is associated with building debris and not petroleum releases from OFFTA. Elevated levels of TPH, above regulatory standards, were also observed in this area. This contamination was also not contiguous with the contamination observed at the northern end of the site. As such, the debris pile represents a separate source area from the contamination found at the northern end of the site and is not linked to OFFTA. The report should note this and state that this area requires additional investigation.

Response:

Please refer to the response to RIDEM's Comment 21.

23. *Section 7.0 Conclusions
Page 7.3, Paragraph 1*

This section of the report notes that the proximity of the OFFTA is the likely source of contamination at SWOS. Further, this contamination may have been the result of a single or multiple releases. However, the report has failed to note that hydraulically SWOS is up gradient of OFFTA and that tidal fluctuations does not appear to affect this area to any significant degree. As such, there does not appear to be mechanisms to connect releases observed at OFFTA with contamination observed at SWOS. The report must note this apparent disconnect in this section.

Response:

The hydraulic gradient will be reviewed and the tidal connection determined, if present. However, determination of the hydraulic gradient may not fully provide evidence of a potential source pathway originating (or not) from the OFFTA site. A release at OFFTA, or in the area at Taylor Drive prior to the construction of this roadway, may have traveled overland, inland to the south as well as north to the harbor.

24. *Section 7.0 Conclusions
Page 7.3, Paragraph 1.*

The final conclusion in the report is that the contamination is limited to areas adjacent to OFFTA and therefore the remedial investigation and remedial actions for SWOS should be merged with OFFTA. At least two additional source areas have been found at the SWOS site, which are apparently unrelated to activities at OFFTA. Therefore, it is inappropriate to merge the contamination found at these locations with that at OFFTA and they must be considered separate source areas linked to the SWOS site. In regards to the contamination observed at the northern end of SWOS the Office of Waste Management final position concerning this matter cannot be made until the comments generated in this comment letter have been addressed and a final remedial action has been proposed for each site. The Office of Waste management will then make a determination whether to support combining the northern part of SWOS with OFFTA.

Response:

It is our opinion that the Focused Site Inspection demonstrates the contaminants found at the SWOS are associated with petroleum releases contiguous with the OFFTA site, and /or with fill and construction debris placed at the site over past years. Addition of fill information to the site figures and description in revised text will better support this conclusion. There is currently enough information to conclude that the activities leading to the contaminant presence at the SWOS property is similar enough to that which occurred at OFFTA in order to consider both properties one site, and to consider the one site as a whole for remedial actions accordingly. RIDEM suggests waiting until a final remedial action has been proposed for each site before determining whether or not to merge the two sites - this is unwarranted.