



STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

DIVISION OF AIR AND HAZARDOUS MATERIALS
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Providence, R.I. 02908-5767

received
12-4-92

December 2, 1992

Francisco A. La Greca
Remedial Project Manager
U.S. Department of the Navy
Northern Division
Naval Facilities Engineering Command
10 Industrial Highway
Code 1823-Mail Stop 82
Lester, PA 199113-2090

RE: Draft RI/FS Phase II Work Plan Comments for the Newport Education and Training Center, Newport, Rhode Island: September 1992

Dear Mr. La Greca:

Please find attached comments generated by the Division of Air and Hazardous Materials concerning the abovementioned document. If you have any questions concerning the comments, please contact me at (401) 277-2797.

Sincerely,

Paul Kulpa

Paul Kulpa, Project Manager
Division of Air and Hazardous Materials

cc: Warren S. Angell
Greg Fine
Carol Keating

PHASE II RI/FS WORK PLAN (DRAFT)
September 1992

NAVAL EDUCATION AND TRAINING CENTER
NEWPORT, RHODE ISLAND

Comments - RIDEM, Division of Air & Hazardous Materials

1. General Comment - Site 01, 09, 12 and 13

The Work Plan has failed to include topographic maps of the sites. These maps should be included in the report as they are necessary for the evaluation of proposed sample locations (for example, surface soil sampling points).

2. General Comment - Site 01, 09, 12 and 13

The scale of the figures in the Phase II Work Plan does not correspond to the scale employed in the Phase I RI. All subsequent figures should employ the scale used in the Phase I RI, (ie, figures used in the Phase II RI and the FS).

3. General Comment - Site 01, 09, 12 and 13

The sample location rationale provides valuable information concerning the proposed location of sampling. However, in a number of cases, additional justification is warranted for the proposed sample locations points.

4. General Comment - Site 01, 09, 12 and 13

The State would consider proposals to investigate offsite or onsite soil or groundwater contamination with microwells.

5. General Comment - Site 01, 09, 12 and 13

The PREVIOUS SITE INVESTIGATIONS - Soil Assessment sections of the report provide detailed discussions of soil contamination at each of the sites. For completeness, and if significant, the report should distinguish between surface soil and subsurface soil contamination.

6. General Comment - Site 01, 09, 12 and 13

The PREVIOUS SITE INVESTIGATIONS - Soil Assessment sections of the report address the IAS and CS carried out at each site. For completeness the Work Plan should comment on the sediment and mussel study carried out by the Army Corp of Engineers at the site. The Work Plan should also note any differences in the collection or analysis methods carried out during the Army

Corp of Engineers Investigation and the investigation carried out during Phase I activities.

In addition, significantly higher concentrations of contaminants were observed in the samples collected by the Army Corp of Engineers compared to the samples collected during the Phase I Investigations. The basis for this disparity must be ascertained prior to the collection of sediment samples from the sites.

7. General Comment - Site 01, 09, 12 and 13

In the RECONNAISSANCE SURVEYS sections for each of the sites, it is stated that "Prior to initiating sampling activities a site walkover will be conducted by field investigative team members to familiarize themselves with current site conditions."

In order to minimize the effects of vegetative cover, site reconnaissance surveys should be conducted in the spring. In addition, it is assumed that the EPA and RIDEM will receive a schedule of field activities.

8. General Comment - Sites 01, 09 and 12

In the Geophysical Surveys section of the specific site sampling plans, the planned locations of EM, magnetometer and seismic surveys are discussed. The Work Plan should include figures depicting the specific locations for these geophysical surveys as they will be applied to each site.

**9. Volume I, Page 1-1,1-2:
Section 1.0, Paragraph 3**

Remove the following sentences because the Navy has stated that no land is being exsessed.

- a. "The only RI/FS ... is the Old Fire Fighting Training Area".
- b. "The final sale ... results of the IR program".

**10. Volume I, Page 2-3:
Section 2.1, Paragraph 8**

The status of the 44 acre parcel in Coddington Cove should be updated in future documents to reflect the current status.

**11. Volume I, Page 2-8:
Section 2.2.3, Paragraph 4**

The document should state if sediment samples were taken during the Confirmation Study.

**12. Volume I, Page 2-11
Section 2.3, Paragraph 4**

Please note for future reference that Blue and Gold Seafarms has been out of business since approximately 1985.

**13. Volume I, Page 2-17
Section 2.4.3**

It is our understanding that the Newport Water Department has connections to obtain water via Tiverton and Fall River reservoirs. Please clarify.

**14. Volume I, Page 2-17:
Section 2.4.3, Paragraph 1**

"While no specific records exist as to private well use in the information reviewed, in general, the majority of private wells are reportedly located on the eastern portion of Aquidneck Island (Personal Communication, Town of Portsmouth, 1992)."

The location of areas not serviced by public water may be obtained from RIGIS water main maps or from local Public Works water main maps. This information may be used to identify targets in the Phase II Risk Assessment Report.

15. Volume I, Table 1: Summary of NETC Waste Sites

Please clarify the location described as "located in Midway".

16. Volume I, Table 2: Status of NETC Waste Sites

- a. Sites # 3, 5, 6, 15 and 16 will also be investigated by the ACE in addition to #14.
- b. The last site listed #18 is a duplicate. Please remove.
- c. Please explain reference #4. Navy previously stated no land was to be excessed.
- d. Reference #5 - Site 17 is on Navy land. The State of R.I. owns the southern half.

17. Volume 1, Figure 3

This surface water data was obtained from a 1983 IAS Report. This data should be updated to reference more recent classifications (September, 1988).

SITE 01: McAllister Point Landfill

**18. Volume III-1, Page 14:
Section 3.4, Paragraph 2**

"The soil gas survey will be conducted on the 25 foot concentric grid pattern around Phase I well nests MW-3 and MW-5." It is estimated that approximately twelve soil gas points will be sampled around each well nest.

The above would seem to indicate that twelve soil gas sampling points will be installed along a twenty five foot radius from the wells. The report should note whether information from the soil gas survey will be used to optimize the location of Phase II monitoring wells 12, 13 and 9 which are proposed to be located 60-100 feet from Phase I MW 3 and 5.

**19. Volume III-1, Page 14:
Section 3.4, Paragraph 2**

"The soil gas survey will be conducted on the 25 foot concentric grid pattern around Phase I well nests MW-3 and MW-5."

Sufficient information has been gathered from the Phase I RI report to meet the criteria presented in Sec. 3.2 of Appendix B for determining soil gas sampling depths. Specifically, in Sec. 3.2 of Appendix B it is stated that "The sampling depth will be determined by evaluating the depth to water, potential contamination sources and overburden material." Therefore the Work Plan should indicate the proposed sampling depth for the soil gas survey. The State recommends that, if possible, a minimum of two soil gas samples should be taken at each sample location. The first sample should be collected near the surface to investigate subsurface contamination. The second sample should be collected within five feet of the water table in order to investigate groundwater contamination.

**20. Volume III-1, Page 14:
Section 3.4, Paragraph 2**

Typo "twelve (15)." Please correct.

**21. Volume III-1, Page 14:
Section 3.4, Paragraph 2**

"As is necessary, additional soil gas survey points will be completed around points indicating elevated concentration of soil gas to locate "hot spots"."

A soil gas survey over the entire site would optimize the location of proposed monitoring wells and borings and identify "hot spots" in areas away from MW 3 and MW 5.

**22. Volume III-1, TABLE 2: Site 01 - McAllister Point Landfill
Surface Soil Location/ Rationale**

The Division recommends collecting sediment samples in areas where leachate outbreaks were identified or sediment samples were found to have high levels of contaminants in the Confirmation Study.

**23. Volume III-1, TABLE 4: Site 01 - McAllister Point Landfill
Monitoring Well Location Rationale**

Phase II MW-12s, 13s are designed to determine groundwater quality north and south of Phase I MW-5.

Phase II monitoring wells 12s and 13s are to be located approximately sixty feet north and south of Phase I MW-5. Microwells in conjunction with a field GC may be employed to fine tune the location of MW 12s and 13s. The Division is aware that logistic problems may prohibit the use of microwells in this area.

24. Volume III-1, TABLE 4: Site 01 - McAllister Point Landfill Monitoring Well Location Rationale

MW-14S/R, MW-14S/R, MW-16S/R are designed to determine the upgradient/off site water quality for the northern, central and southern portion of the landfill.

Additional justification is requested for the installation of three upgradient monitoring wells (the report should also note whether upgradient well MW-23 is functional). The Division recommends the use of microwells to determine upgradient groundwater quality. Conventional wells may be installed if an upgradient source is identified.

25. Volume III-1, Figure 5: Site 01 - McAllister Point Landfill Phase II Investigation Summary

- a. Please explain why B-13/MW-23 is not on this map.
- b. Please explain why subsurface borings are not proposed for the NW side of the landfill (west of B-15, B-17 and B-19, except MW-8).

26. Volume III-1, Figure 6: Site 01 - McAllister Point Landfill Surface Soil Sample Locations

Phase II numbers for surface soils do not match Figure 5. Please review and correct as necessary for future documents.

SITE 09: Old Fire Fighter Training Center

**27. Volume III-2, Page 3:
Section 2.1, Paragraph 2**

"The site details from the 1943 drawing are provided in Figure 3."

If available the report should include a more detailed diagram of the site. This diagram would included the location of the piping network beneath the site, the location of any underground tanks etc. In addition details from the demolition of the site should be included such as which components of the system (underground piping etc) if any was left in place when the system was dismantled, etc.

**28. Volume III-2, Page 5:
Section 2.3, Paragraph 3**

"VOC were not detected at concentrations exceeding ground water action levels in any of the site ground water samples. However, at well location M-4, elevated soil gas readings in the soil, petroleum odors in the soil and ground water samples, and a sheen on the groundwater indicate a potential for subsurface VOC contamination in this area."

The Work Plan should comment on the obvious signs of oil contamination and the low VOC and SVOCs levels observed in the groundwater.

**29. Volume III-2, Page 10:
Section 3.3, Paragraph 2**

"The EM and the Magnetometer geophysical surveys will be conducted along the 10-foot spaced traverses in the central mounded area of the site and at 50-foot spaced traverses along the shoreline edge of the site."

Information presented in the Phase I RI did not indicate whether the elevated magnetic readings observed in the western portion of the site corresponded to the mound found in this area. The mound area and the area immediately west of the mound should undergo EM and Magnetometer geophysical surveys if these area were not investigated during Phase I activities.

**30. Volume III-2, Page 11:
Section 3.4.2, Paragraph 1**

Typo "Thirteen (11)." Please correct.

**31. Volume III-2, Page 12:
Section 3.4.3, Paragraph 4**

"The location of the Phase I geophysical surveys anomalies along with the proposed test pits are shown on Figure 9."

The following language should be added to clarify the above statements:

Test pits may be employed to explore the magnetic anomaly in the western portion of the site. This decision will be based upon information obtained from the proposed borings in the area.

**32. Volume III-2, Page 13:
Section 3.4.3, Paragraph 3**

"If potentially contaminated soils..."

Every effort should be made to remove and contain heavily contaminated soils which are discovered.

33. Volume III-2, TABLE 2: Site 09 - Old Fire Fighting Training Area Surface Soil Location/Rationale.

The state is aware of storm water outfalls along the shoreline of the site. The report should note if any of the shore sediment samples will be taken from the vicinity of the storm water outfalls. Also, if available, the report should confirm the function of these outfalls.

34. Volume III-2, TABLE 3: Site 09 - Old Fire Fighting Training Area Test Boring Location/Rationale.

"B-18 Characterize the subsurface soil at the east end boundary of Site 09."

Additional justification is requested for B-18 which is proposed to be located approximately forty feet south of Phase 1 boring B-1.

35. Volume III-2, TABLE 4: Site 09 - Old Fire Fighting Training Area Monitoring Well Location/Rationale.

"MW-6S/R Further investigate groundwater quality upgradient (south) of Site 09."

During Phase I investigations VOCs and SVOCs were not detected in Phase I upgradient well MW-5. The concentration of the majority of the heavy metals observed in this well were below that detected in the downgradient monitoring wells. Therefore it is assumed that the justification for an additional upgradient well MW-6S/R is the elevated levels of SVOCs observed in the soil borings for this well. If this is the case, the report should clearly note this in the rationale section. In addition the report should note if an upgradient source of contamination is suspected or whether the observed levels found in the soil boring for MW-5 are due to activities carried out during the operation of and or dismantling of the fire fighting station.

The State recommends addressing potential upgradient contamination by conducting a limited soil gas survey or obtaining grid water samples upgradient of the site with a geoprobe.

36. Volume III-2, Figure 7: Site 09 - Old Fire Fighting Training Area Surface Soil Sample Locations

It would be beneficial to the reader if the results for the resampling of the playground were listed.

37. Volume III-2, Figure 10: Site 09 - Old Fire Fighting Training Area Monitoring Well Locations

Please explain the historical nature of the location for MW-6.

Construction excavations by NETC in the area between MW-6 and the Old Fire Fighting Training Area has discovered petroleum related contamination.

SITE 12: Tank Farm Four

- 38. Volume III-3, Page 3:
Section 2.1, Paragraph 2**

"At the western side of the tank area in a small metal building which was used as the electric substation during the operation of the tank farm."

The location of this substation should be depicted in the figures for Tank Farm Four. In addition if there is evidence that PCB transformers were housed at the station, PCB soil samples should be taken in this area.

- 39. Volume III-3, Page 4:
Section 2.2, Paragraph 1**

"The tank bottom sludge obtained during the cleaning operation, was disposed of directly unto the ground in the vicinity of the tank. Between 100,000-190,000 gallons of oil sludge, which is a hazardous waste in the State of Rhode Island, was disposed of at this site."

The Work Plan should indicate whether documents or sources of information other than the IAS were examined in order to investigate sludge disposal practices and locations at Tank Farm Four.

- 40. Volume III-3, Page 14:
Section 3.3.1, Paragraph 1**

"These samples will be collected from the following general locations: around areas of documented Phase I surface soil contamination (oil/water separator), surface soil samples not sampled in Phase I, along the western edge of the site, at several tank locations."

Additional justification is needed for the proposed locations "not sampled in Phase I". That is whether these areas are being investigated in order to provide complete coverage of the area or to investigate suspected areas of contamination for examples area with elevated Phase I soil gas readings etc.

- 41. Volume III-3, Page 4:
Section 3.3.2, Paragraph 5**

"Soil samples will be collected from the Phase II site well borings planned at eight different on-site locations."

In Section 3.4 of Volume III-3, Page 15, Paragraph 6 it is stated that "In Phase II, a total of thirteen monitoring wells are planned at nine new locations." Please provide justification for conducting well borings at only eight of the nine new monitoring well locations.

**42. Volume III-3, Page 4:
Section 3.2.2, Paragraph 5**

"Soil samples will be collected from the Phase II site well borings planned at eight different on-site locations."

In the Phase I investigation elevated soil gas readings were obtained in the vicinity of a number of the underground storage tanks. The State recommends collecting soil or groundwater samples from the ring drains of these tanks. A geoprobe could be used for this investigation.

**43. Volume III-3, Page 4
Section 3.2.2, Paragraph 5**

"Soil samples will be collected from the Phase II site well borings planned at eight different on-site locations."

Section 2.2 Site History section of this reports notes that approximately 100,000-190,000 gallons of oils sludge obtained during the cleaning of the tanks was deposited in the vicinity of the tanks. The report has not indicated which sampling activities are designed to located these sludge disposal areas. The State recommends a limited survey in the vicinity of the tanks. This survey may involve the field examination of soil samples collected with a hand auger or microwell and or the collection of near surface soil gas samples in the vicinity of the tanks.

**44. Volume III-3, Page 4:
Section 3.2.2, Paragraph 6**

"Soil samples will be collected at 5 foot intervals from the well borings to the depth necessary for the installation of the well (ie, approximately 5 feet past the water table)."

In order to locate potentially buried sludge disposal areas and oil spill zones the State recommends that continuous split spoon samples be collected from the well borings to the depth of the water table in addition to collecting soil samples at five foot intervals.

**45. Volume III-3, Page 15:
Section 3.4, Paragraph 6**

"In Phase II, a total of thirteen monitoring wells are planned at nine new locations."

During the Phase I soil gas investigation elevated readings were obtained throughout the site including the perimeter of the site. However the grid size employed during the soil gas survey did not allow for delineation of plumes or zones of contamination. The elevated soil gas readings should be addressed during the Phase II investigations. The State recommends the collection of groundwater samples and or soil gas with a geoprobe in order to investigate possible offsite contamination and to optimize the location of onsite sampling points.

**46. Volume III-3, Page 17:
Section 3.5, Paragraph 3**

Please provide the rationale for the proposed Acid Volatile Sulfides (AVS) analysis

**47. Volume III-3, Page 17:
Section 3.6, Paragraph 1**

"The ruins appears to be a former oil/water separator or similar structure."

The report should include a diagram depicting the piping network associated with the oil/water separator including the discharge point for said system. In possible a sample should be collected from this network. In addition the report should include a diagram depicting the fuel line piping network.

48. Volume III-3, TABLE 2: Site 12 - Tank Farm Four Surface Soil Location Rationale

"SS-18 and SS-19 Characterize surface soil quality in the low-lying area located in the northwest portion of Site 12."

Elevated soil gas readings were obtained in the area north of the above sampling points. The report should note the elevation of the area north of the above sampling points, that is whether the area adjacent to the northern border of the site is at a higher or lower elevation than SS-18 and SS-19. If the area north of the above sampling points is at a lower elevation than this area should be sampled.

49. Volume III-3, TABLE 2: Site 12 - Tank Farm Four Surface Soil Location Rationale

"SS-25, SS-26, SS-27 Determine background surface soil quality for Site 12."

The above sampling points have been designated as upgradient surface soil samples. However, elevated soil gas readings (collected at water table depth) were observed in observed in this area. Therefore it may be inappropriate to label these locations as upgradient until the source of the elevated

readings is determined. The State would consider any proposal to investigate the area adjacent to the site as possible upgradient sampling locations.

50. Volume III-3, TABLE 2: Site 12 - Tank Farm Four Surface Soil Location Rationale

"SS-17 Characterize surface soil quality upgradient of the central portion of Site 12."

This sample station is located in an area which may have been used for sludge disposal, therefore the above should be modified as follows:

SS-17 Characterize surface soil quality on the eastern portion of Site 12.

51. Volume III-3, TABLE 2: Site 12 - Tank Farm Four Surface Soil Location Rationale

"SS-22 Characterize soil quality in the drainage ditch along the western border of Site 12."

Additional justification is required for SS-22. This justification should address topography and drainage patterns in the vicinity of SS-22.

52. Volume III-3, TABLE 3: Site 12 - Tank Farm Four Monitoring Well Locations/Rationale

MW-6S Further investigate ground water quality upgradient of the central portion of Site 12.

MW-7SR Further investigate ground water quality upgradient of the south central portion of Site 12.

The report should indicate the potential source of offsite contamination which warrants three monitoring wells approximately four hundred feet apart. The State recommends placing one of the above monitoring wells in the main body of the tank farm. A limited soil gas survey may be employed to investigate potential off site contamination. In addition a geoprobe may be employed to collect groundwater samples prior to the placement of a permanent type monitoring well.

53. Volume III-3, TABLE 3: Site 12 - Tank Farm Four Monitoring Well Locations/Rationale

MW-10S Investigate groundwater quality in the north central portion of the site".

Additional justification is requested for the proposed sample location. The monitoring well is located in an area which was ND for the soil gas survey conducted during the Phase I RI. The State recommends locating the well to the northwest in

order to investigate high soil gas readings obtained from the northwest corner of the site.

54. Volume III-3, TABLE 3: Site 12 - Tank Farm Four Monitoring Well Locations/Rationale

MW-12S/R MW-13S Investigate groundwater quality downgradient of the southwest and the southern portion of the site.

Additional justification is requested for the above proposed sampling points locations. That is, what is the source of contamination which warrants the placement of three monitoring wells approximately four hundred feet apart. If the well spacing is designed to fully investigate this section of the site, the State recommends the use of a geoprobe to collect groundwater samples or soil gas samples in order to optimize the location of the wells.

55. Volume III-3, Figure 7: Site 12 - Tank farm Four Surface Soil Sample Locations

Please provide rationale for the collection of surface soil samples from the tops of the tanks.

SITE 13: Tank Farm Five

56. Volume III-4, Section 3.0

Please explain why no geophysical surveys are planned for this site

**57. Volume III-4, Page 13:
Section 3.3.1, Paragraph 2**

According to Table 2 and Figure 6, there are two (2) background surface soil samples, not three.

**58. Volume III-4, Page 13:
Section 3.3.2, Paragraph 2**

"Soil samples will be collected at 5-foot intervals from the well borings to the depth of necessary for installation of the well (i.e., approximately 5 feet past the water table)."

Typo: omit "of."

This sentence contradicts the procedure presented in Appendix B, page 15, paragraph 4, which states that "Split spoon samples will be collected continuously at 2.0 -foot intervals from the well borings until the water table has been reached or split-spoon refusal (encountered boulders or bedrock)." The State recommends that the procedure as outlined in Appendix B be followed.

**59. Volume III-4, Page 15:
Section 3.4, Paragraph 2**

It is unclear on Figure 7 and Table 1 which wells will be tested. The "12 existing wells" mentioned on Table 1 as being sampled are not clearly identified on Figure 7. There are five (5) locations in Phase I (MW-1 through MW-5) as well as fourteen (14) other wells which were installed under a tank closure investigation for Tanks 53 and 56. Therefore, it must be made clear which of these existing nineteen (19) wells will be sampled. If only twelve (12) of these nineteen (19) existing wells are being sampled, please explain why all wells are not being sampled and provide a rationale for choosing the sampled wells.

**60. Volume III-4, Page 15:
Section 3.4, Paragraph 2**

The first sentence states that "groundwater samples will be collected from each of the Phase I ... monitoring wells." In the Phase I RI, the "hits table" indicates that MW-4 provided insufficient sample volume for analysis. Please explain whether this well is one of the twelve (12) existing monitoring wells to be sampled. If so, then please explain what alternatives are being considered if the well is again unable to provide adequate sample volume.

**61. Volume III-4, Page 15:
Section 3.4, Paragraph 2**

Please explain why monitoring well MW-86-3 is not shown on Figure 7.

**62. Volume III-4, Section 3.4
General Comment**

Please explain whether MW-86-5 is to be sampled. This monitoring well is shown on Figure 7 of Volume III of the Phase II workplan but no sample results were displayed in the Phase I RI hits tables. Please explain the status of this well.

**63. Volume III-4, Page 15:
Section 3.4, Paragraph 2**

"The rationale for each of the planned well locations is provided in Table 3." This sentence should read "The rationale for each of the planned Phase II well locations is provided in Table 3."

**64. Volume III-4, Page 18:
Section 4.2, Paragraph 3**

It should also be noted that recent studies conducted at this

site under the RCRA program have indicated that elevated levels (>100 ppm) of Total Petroleum Hydrocarbons are present in the surface soils at Tank 53 as well.

65. Volume III-4, Table 1: Site 13 - Tank Farm Five Surface Soil Location/ Rationale

The summary of the Phase II Tank Farm Five site sampling program presented in Table 1 is misleading as it applies to the scope of work for the groundwater activities. The table should indicate 10 wells at 7 locations because there are 6 new well locations and one old (MW-5) location.

66. Volume III-4, General

Please provide a figure indicating the layout of the pipe network for the tank farm. Please explain how the piping is enclosed.

67. Volume III-4, General

In the Phase I RI (Volume I), Figure 2-9, elevated soil gas concentrations are shown along the southwestern edge (upgradient) of the tank farm. The Phase II RI should address this situation. Is there any evidence of off-site contamination?

APPENDIX B: Field Sampling Methodology Plan

**68. Appendix B, Page 1:
Section 1.1, Paragraph 2**

In the first sentence, the word "preforming" should be changed to "performing."

In the second sentence, the word "preformed" should be changed to "performed."

**69. Appendix B, Page 9:
Section 4.2, Paragraph 3**

"Soil samples will be collected from a depth of at least six inches below ground surface."

The Division recommends that the following be added to the above. In the absence of obvious signs of contamination composite soil samples will be taken from each soil sample area.

**70. Appendix B, Page 13:
Section 6.2, Paragraph 3**

"Split spoon samples will be monitored for the presence of

total VOC vapors with a flame or photoionization detector."

The report should elaborate on the procedure to be employed to detect VOCs in the split spoon samples (ie, samples placed in jars for headspace analysis, etc).

**71. Appendix B, Page 9:
Section 4.2, Paragraph 3**

"Soil samples to be analyzed for VOCs will be collected at a depth of at least six inches below the ground surface."

The vast majority of surface soil samples collected during the Phase I RI were non detect for VOCs or contained low levels of VOCs. The State recommends collecting the soil samples at a greater depth. The Navy may want to consider the use of an appropriate field GC for VOC analysis (Field GC capable of detecting VOC in the low ppb range).

**72. Appendix B, Page 15:
Section 7.2, Paragraph 4**

"Soil samples to be submitted for laboratory analysis will be transferred directly from the split spoon to the sample container with a dedicated decontaminated stainless-steel spoon."

The report should note the criteria to be employed for determining which samples will be sent to the laboratory, ie field observations, odors, readings obtained with the VOC detector, etc.

**73. Appendix B, Page 16:
Section 7.2, Paragraph 1**

This section of the report describes the procedures to be employed during the construction of overburden wells.

The report should also outline the procedures to be employed during the installation of bedrock wells.

**74. Appendix B, Page 16:
Section 7.3, Paragraph 5**

This section of the report should be modified to meet requirements of the State of Rhode Island Groundwater Regulations. The necessary modifications include but are not limited to the following:

Threaded or press joints only on PVC pipe (no glued joints), all joints shall be fitted with an "O" ring or wrapped with teflon tape.

The well screen slot size shall retain at least 90% of the

grain size of a filter pack. A bottom cap and a sump sediment trap shall be installed.

The ground surface seal shall extend to a minimum of 40 inches below the land surface and shall be flared such that the diameter at the top is greater than the diameter at the bottom. The top of the ground surface seal shall be sloped away from the well casing and shall be imprinted with the designation of the monitoring well.

**75. Appendix B, Page 18:
Section 7.4, Paragraph 1**

"Development will continue until pH, temperature and specific conductance have stabilized and turbidity is < 10 NTU or has stabilize to + or - 10 % on successive well volumes."

The following should be modified as follows:

Development will continue until pH, temperature and specific conductance have stabilized and turbidity is < 10 NTU. If the 10 NTU criteria is not achievable, the Parties will determine if a turbidity standard of + or - 10 % of successive well volumes is appropriate on a case by case basis.

**76. Appendix B, Page 18:
Section 7.4, Paragraph 1**

"Development will continue until pH, temperature and specific conductance have stabilized and turbidity is < 10 NTU or has stabilize to + or - 10 % on successive well volumes."

The State recommends that: All Phase I monitoring wells will be checked to determine if the wells meet the 10 NTU turbidity criteria. Wells which do not meet this criteria should be redeveloped.

**77. Appendix B, Page 18:
Section 7.5, Paragraph 2**

"Additionally, at those sites where the presence of a non-aqueous phase liquid (NAPL) is anticipated due to previous site information or as potentially indicated by test or monitoring well boring observation, the presence of NAPLs will be assessed (e.g. the thickness of the NAPL will be determined) prior to sampling with an oil/water interface probe."

The Division recommends the following:

Prior to taking water level measurements a head space readings should be collected and recorded for each well using a HNu or an OVA.

An oil/water interface probe should be used at all well independent of site history. The use of an oil/water

interface probe in lieu of an electronic water sensing device will not generate any appreciable delays or cost in sampling the wells.

NAPLs detected in the wells should be sampled prior to well purging.

**78. Appendix B, Page 22:
Section 9.1, Paragraph 2**

"Sediment samples will be collected with a precleaned two-inch diameter by two-foot long fiberglass hand coring device."

The report should indicate which portion of the core will be sent to the laboratory for analysis. Obvious zones of contamination should be sent to the laboratory for analysis. In the absence of obvious zones of contamination a composite sample should be taken from the entire two foot section of the core. In addition, core samples should be taken from zone of deposition.

Data Evaluation and Assessment

**79. Volume IV, Page 3.2:
Section 3.4, Paragraph 3**

This section outlines the format to be used concerning the extent of contamination at the sites. The State recommends that figures be included which depict the concentrations of contaminants (total VOC, SVOC etc.) at each sample point.

**80. Volume IV, Table 1: Planned Report Format for RI Report at
NETC- Newport**

The Division recommends that all site information be grouped together in one section so that the reader does not jump between sites while reviewing.

Risk Assessment Plan - Human Health Evaluation

**81. Volume V, Page 2-2:
Section 2.1.1, Paragraph 1**

"Following landfill closure, a three foot thick soil cap was placed over the site".

Please clarify this statement. Our records indicate that a three foot cap was not placed over the entire site.

**82. Volume V, Page 2.8:
Section 2.1.1, Paragraph 2**

"For Scenario 1,2, and 3, the major contributing factor to the calculation of cancer risk is ingestion of arsenic and carcinogenic PAHs in soil. Ingestion of soil and house dust and/or inhalation of vapor phase VOCs also contribute to the overall cancer risk for children and adults..."

The report should indicate whether inhalation of dust and vapor phase VOC were considered during the calculation of risk for the day care center.

Risk Assessment Plan - Ecological Evaluation

**83. Volume VI, Page 1:
Section 1.0**

The information presented in this section of the reports indicates that field activities carried out for the ecological risk assessment will consist of a qualitative review of wildlife in the area and the collection of sediment and water samples.

Activities of this nature are routinely carried out during Phase I investigations. Therefore, the Work Plan should stipulate that, if required, additional bioassays, bioassessments etc will be carried out at the site prior to the completion of the ecological risk assessment. The EPA and RIDEM will review any proposals concerning the necessity of said studies.

**84. Volume VI, Page 18:
Section 3.2.6, Paragraph 4**

"These samples will be examined using a rapid benthic assessment methodology."

Additional information is requested concerning the proposed benthic assessment to be carried out at Tank Farms Four and Five (sample locations, time windows etc). The State recommends EPA's Rapid Bioassessment Protocol II and III for these sites.

**85. Volume VI, Page 4:
Section 2.0, Paragraph 2**

Remove "to the State of R.I." or clarify who the land was distributed to.

**86. Volume VI, Page 9:
Section 2.3.3, Paragraph 4**

Please fill in the depth of feet where the depth is currently indicated as "XXXX".

87. Volume VI, Page 29:

Section 3.5.1,

"SW-1, SD-1 Existing station; downstream of railroad bridge and Defense Highway."

"SW-1A SD-1D New station; flat area near mouth of brook."

The above sampling locations may be affected by contaminants from the railroad right of way and tidal action. The Work Plan should comment on the above and indicate what action can be taken to address these potential sources of contamination.

88. Volume VI, Page 47

Section 7.2, Paragraph 2

"This analysis will use information generated from the Exposure and Ecological Effects Assessments and will rely upon the Toxicity Quotient approach as well as on direct observation of conditions in the field to provide an overall weight of evidence concerning the nature of risk."

Information gathered during the Phase I investigations indicates that surficial contamination is present at the sites (Ex McAllister Point Landfill). The report should indicate why quantitative studies, such as bioaccumulation analysis of mammal or invertebrate tissue were not proposed for these sites.