N62661.AR.002260
NAVSTA NEWPORT
5090.3a

RHODE ISLAND
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
235 Promenade Street, Providence, RI 02908-5767 TDD 401-222-4462

September 12, 2008

Winoma Johnson
NAVFAC MIDLANT (Code OPNEEV)
Environmental Restoration
Building Z 144, Room 109
9742 Maryland Avenue
Norfolk, VA 23511-3095

Re: Response to Comments on the Draft Work Plan and Quality Assurance Project for MMRP Site 1, Carr Point

Dear Ms. Johnson,

The Rhode Island Department of Environmental Management, Office of Waste Management has the reviewed the Response to Comments on the Draft Work Plan and Quality Assurance Project for MMRP Site 1, Carr Point dated August 15, 2008. Attached is an evaluation of these responses.

The Office of Waste Management looks forward to working with the Navy and the EPA in the investigation and remediation of this and other sites on the Newport Navy Base. If the Navy has any questions please contact this Office at (401) 222-2797, extension 7111.

Sincerely,

Paul Kulpa

Paul Kulpa
Office of Waste Management

cc: Mathew DeStefano, DEM OWM
Richard Gottlieb, DEM OWM
Cornelia Mueller, NSN
Ginny Lombardo, EPA Region I

Evaluation of Response to Comments on the
Carr Point Firing Range
Draft Work Plan

1. **Section 1.0, Introduction**
   Page 2 of 2, Paragraph 4

   This paragraph states that the Field Modification Request (FMR) will be used to document minor changes in the work plan and QAPP. This would include changes in personnel or subcontractor, minor changes in sample collection or analytical methods, or relocating a sample/station location. This information will be provided to the regulators for informational purposes only. Changes in sample collection and analytical methods need to be discussed with the regulators prior to implementation. Please revise the document accordingly.

   Evaluation of Response

   Comment has been addressed.

2. **Section 2.3, Project Organization**
   Page 2 of 58, Paragraph 1

   Responsibilities, and Communication Pathways,: Table 2-4 is referenced in this sentence. In addition to the telephone number, mailing and e-mail addresses should also be provided as part of the communication pathway.

   Evaluation of Response

   Comment has been addressed

3. **Section 2.6,** Problem Definition and Site History
   Page 4 of **58**

   Please provide the complete (not abbreviated) Archive Search Report (ASR) for Carr Point.

   Evaluation of Response

   The Navy has stated that information from Appendix B and C of the Final Water Area Munitions Study, Carr Point Shooting Range 2005 will be included in the current report. The Office of Waste Management request was for the complete copy of the Archive Search Report. It is not clear that the information presented in Appendix B and C of the aforementioned document

represents the complete Archive Search Report. Please obtain documentation from the authors of the report confirming that this is the complete archive search report

4. **Section 2.6.1, Site Location History and Background**
   Page 4.

   This section tracks the history of the site from 1967 through 1989. Please provide the history of the site from the time the Navy took possession of the property through 1967 and from 1989 to date.

   Evaluation of Response

   The Navy has stated that according to the Naval Station Newport Public Work Section the records for Carr Point are limited. Please be advised that the United States Navy and the State of Rhode Island has historical aerial photographs of the area, which date back to the 1940's. The US Navy also has Condition Maps and historical engineering plans, which depicts the location of buildings, utilities, drains, etc at this site. Naval Station Newport also maintains a base museum, which can provide information about the site. This information can be used to create a site history. Accordingly, please use these sources to obtain historic information about the site.

5. **Section 2.6.1, Site Location History and Background**
   Page 6 of 58, Paragraph 5

   The discussion in this paragraph should be highlighted on Figure 2-4 for better clarity of the information.

   Evaluation of Response

   Comment has been addressed

6. **Section 2.6.1, Site Location History and Background**
   Page 4.

   The site history and background section provides valuable information concerning past activities which is then used to direct the site investigation. Please incorporate the following information into the report and figures

   a. In addition to the firing range depicted on the plan there were two more firing ranges constructed on the site. Please depict the location and orientation of all three firing ranges

   b. In the central part of the site was Building 186 Store House Building 187 Fire House. Building 212 Ware House, and Building 213.

c. Southern part of site, Rail Head, Scrap Yard, Petroleum Drum Storage Drum Storage

d. Oil Water Separator (serviced drum storage area) 12-inch Discharge Pipe southern end of site

e. Drain Pit with Porous Dry Well southern end of site
f. Drain Pit with Porous Dry Well central portion of site

g. 12 inch VC Drain line transverse southern end of site.

The above information was obtained from a limited review of plans, photographs, etc. Please provide a list of condition maps, plans and photographs which were reviewed in preparation of this work plan. Further, as the Navy has more extensive plans and photographs of the site please conduct a review of these materials.

Evaluation of Response

The Navy has indicated that engineering drawings have been found for Carr Point. It is assumed that the drawings refer to Condition Maps, as well as, engineering plans. Please provide a copy all of the engineering drawings/condition maps that were found. Be advised that the Navy also has aerial photographs of the site, Also a number of the engineering plans that provide extremely useful information about the site may not be labeled as Carr Point, but instead may refer to as Area 2 or 3, Tank Farms, Master Shoreline Plans, etc. Finally, please be advised that the Office of Waste Management is willing to assist the Navy in this endeavor.

7. Section 2.6.1, Site Location History and Background Page 6.

The work plan notes that six soil samples were collected and analyzed for a variety of contaminants. A review of the analytical data sheets reveals that exceedance of State's standards and/or EPA Region IX PRGS were found for lead and TPH. Please provide a table listing the detected constituents and corresponding results and a figure depicting sample locations. This information is necessary as it may affect where samples are to be collected under the current study.

Evaluation of Response

The Navy has indicated that a complete map was not provided with the results. Accordingly the chain of custody, which had general titles for the samples, was used. These samples were recently collected and as such field

notebooks or other sources of information should be available which depict the lcoation of the samples. Accordingly, please contact the firm, which collected the samples, to obtain the requested information and depict the locations of the samples on a map.

8. **Section 2.6.2, Physical Characteristics of the Site, Page 8 of 58, Paragraph 3.**

   Please change " not suitable for public or private drinking water use" to "not suitable for public or private drinking water use without treatment".

   Evaluation of Response

   Comment has been addressed.

9. **Section 2.7.1.3, Step 3 Inputs into Decision Page 10, Paragraph 1.**

   Please add mercury to the list of analytes for the sediments.

   Evaluation of Response

   Please see comment 13 below.

10. **Section 2.7.1.3, Step 3 Inputs into Decision Page 10.**

    The report notes that sediment samples will be analyzed for lead. Sediment samples associated with the firing range should also be analyzed for PAHs, as this was a constituent of the targets. Sediment samples associated with the discharge pipes, and petroleum storage area should be analyzed for the full range of contaminants.

    Evaluation of Response

    The Navy has stated that it is reluctant to sample for PAHs as there may be other sources of PAHs associated with historic spills in the area and/or Normans Brook. This is not a unique situation to this site as sediment samples are routinely collected in areas where there is the potential for off site sources. This aspect of the investigation is typically addressed by the use of accepted reference stations. Therefore, please collect the samples as requested.

    The Navy has stated that analysis of the full TAL for sediments samples is not warranted. Att his site there was a series of storage buildings, a scrap yard and a drum storage area. Drains, which serviced the area, were also present.

Over time it is likely that a variety of materials were stored in this area and any releases may have been discharged directly through the drains to the bay. Further, the physical, chemical, biological degradation and migration process are not the same in the soil and in the sediment. As such, contamination at the discharge points may be different in nature then that found in the soil or groundwater. Therefore please sample the discharge locations for the full suite of analytes.

11. **Section 2.7.1.3, Inputs into Decision, Table 2-6, Soil Fixed Laboratory Parameters, Note 2, Page 34 of 58**

    TPH analysis will be performed according to SW846-8015B for both GRO and DRO. Although not specified, please state that two separate analyses will be performed: VOC procedure for light end products and an SVOC procedure for the heavier fuels. Further, the work plan must state that the full range of petroleum products up to Navy special must be quantitated.

    Evaluation of Response

    Comment has been addressed. In order to avoid problems with the analysis the lab should be instructed to run standards for the various fuels.

12. **Section 2.7.1.3, Inputs into Decision, Table 2-6, Soil Fixed Laboratory Parameters, Page 34 of 58**

    According to this note the Project Quantitation Limit is set at a concentration of at least three times lower than the project action level. The project action level is 500 mg/kg TPH. The PQL is 250 mg/kg which is only half. Please set PQL to a maximum of 167 mg/kg to be consistent with this note.

    Evaluation of Response

    Comment has been addressed. Please be advised that at <u>all</u> sites this approach must be implemented.

13. **Section 2.9.1, Project Overview, Page 20 of 58, Bullet 4**

    Please explain why mercury will not be sampled for.

    Evaluation of Response

    The TAL contains an extensive list of metals including those not normally associated with MMRP sites. This is justified, as there are a number of potential source in the area. The request for mercury reflects the same rationale used for the other TAL metals

14. **Section 2.9.2, Schedule**
Page 21.

Please include a provision for regulatory oversight. In general, forty-eight hour notification is required prior to the commencement of field activities, 24-hour notification, when possible, is required for cancellation of field activities. A weekly schedule of upcoming field activities must be sent out and the entity responsible for regulatory notification of field activities must be specified.

Evaluation of Response

Comment has been addressed.

15. **Section 3.1.8.1, Sediment Sampling Procedures**
Page 13.

The report proposes removing lead pellets from the samples and counting them to ascertain ecological affects for birds. Sediment samples must also be tested with the lead pellets to ascertain total lead in the sediment. Accordingly, the total lead concentration in the sediment will be determined by adding the lead concentration obtained from the sieved sediment to the "weighted" lead concentration found from the pellets.

Evaluation of Response

The Office of Waste Management agrees that counting pellets will address one aspect of the ecological risk to birds. In order to address all other risk total lead samples must be run. Total lead samples have been run at other firing ranges using approaches such as, simple grab samples, various grinding procedures, TRIAD field analysis of multiple sampling locations, etc. Therefore please modify the report to include total lead analysis of the samples (Considering the size of the site the Navy may wish to evaluate the use of a field XRF and oven to analyze multiple field samples at each sample location).

16. **Section 3.1.8.1, Sediment Sampling Procedures**
Page 13.

Due to typical heterogeneity problems found at firing ranges standard EPA protocols for analyzing soil/sediment samples may require modification. Alternative methods range from various separation techniques to analyzing larger aliquots of the sample. The aliquot methods are less complicated then the separation techniques and simply entail analyzing 1-4 oz of the sample in lieu of the standard aliquot. Accordingly, it is recommended that aliquot technique be applied (depending upon the size of the aliquot, 8 oz sample size

may be required). Alternatively, a separations technique maybe proposed (these techniques do require the analysis of the various fractions).

Evaluation of Response

Comment has been addressed.

17. **Section 3.1.8.1, Sediment Sampling Procedures**
Page 13.

The Office of Waste Management request split samples be collected for all sediment and soil samples collected at the site for metals. Due to the inability to provide field oversight for the collection of sediment samples, please include this provision for split samples in the work plan.

Evaluation of Response

Comment has been addressed.

18. **Section 3.1.8.1, Sediment Sampling Procedures**
Page 13.

Although not stated it is assumed that if obvious signs of contamination (presence of lead shot or clay fragments) are observed by the divers, the proposed grid will not be adhered to and these areas will be preferentially sampled. Please modify the work plan accordingly.

In regards to the beach/ low tide area, please modify the work plan to state that the beach/low tide area will be inspected for obvious signs of contamination (lead shot/clay fragments) and samples will be preferentially collected from these areas.

Evaluation of Response

It appears that the comments has been addressed in that the divers will modify the sampling locations based upon field observations and samples may be collected on the beach using the same approach. Please confirm.

19. **Section 3.1.8, Sediment Sampling**
Figure 3-1, Proposed Sampling Locations.

The site history section is not of sufficient depth to ascertain the different types of skeet shooting which was conducted at the site. Sporting skeet is characterized by flexibility in range angles and shooting directions. This means that it is not possible to create a standard shot fall zone. As such, contamination may exist outside of the proposed sediment sampling area. The

work plan should note this and state if contamination if found at the edges of the proposed sampling area, the area of concern will be expanded and additional samples will be collected beyond the current limits of sampling.

Evaluation of Response

Comment has been addressed.

20. **Section 3.1.8.1, Sediment Sampling Procedures**
Page 13.

Please include the following procedure for sampling at the outfall pipes and a the sediment in the southern end of he site:

If the discharge pipes contain sediments and or sludge a sample of this material will be analyzed. The out falls will be tracked to find the discharge point. Small test holes 0-1 foot deep will be dug at the suspected outfall and samples of sediment sample will be collected from the locations, which exhibits field evidence of contamination.

In regards to the general beach and sediment samples to be collected in the southern/western area, a similar approach of digging test holes 0-1 foot deep and or overturning large rocks will be employed to ascertain the best locations to collect samples. The above procedures are necessary as it is often found that the top 0-2 inches of beach/sediment frequently do not exhibit field evidence of contamination, however, once a test hole is dug, evidence of contamination is observed.

Evaluation of Response

Comment has been addressed. Per the request of the Navy the following are recommended approaches.

Locating discharge pipes.

The discharge pipes may not be visible on the beach. All four discharge pipes in the backyard area and the discharge pipe at the Midway Pump House were buried in the beach material even though aerial photography revealed that at one time they were on top of the beach.

If the source of the discharge pipes is found in land they can be tracked to the beach and the final s discharge location with test pits. If this is not the case then the locations of the discharge pipes can be obtained from historical engineering plans and/or aerial photographs. As the discharge pipes themselves may be clay or steel (both were employed by the Navy) it is recommended that test trenches be dug to locate the pipes on the beach. This

will necessitate digging holes adjacent to the discharge pipe. Once the terminus of the discharge pipe is found several holes may be dug to look for field evidence of contamination. Samples collected for analysis will be biased towards the area, which exhibits field evidence of contamination. As always if evidence of contamination is found during this process samples will be collected. As an illustration during the tracking of the discharge pipe from the Midway Pump House heavy oil contaminated soil and free product was found adjacent to a break in the discharge pipe in the upper beach area).

21. **Section 3.1.9, Land Surveying**
    Page 14 of 38, Paragraph 1

    This paragraph states that land surveying will be performed by a Massachusetts registered land surveyor. Please change Massachusetts to Rhode Island.

    Evaluation of Response

    Comment has been addressed.

22. **Section 3.1, Field Task,**
    Page 1.

    Please add the following locations as areas of concern, which are to be investigated.

    Drain Pit with Porous Dry Well southern end of site.
    Drain Pit with Porous Dry Well central portion of site
    Oil Water Separator
    Discharge pipe transverse southern end of site
    Discharge pipe southern end of site
    Scrap Yard
    Firing Range # 2 (Firing Range # 1 has already been identified_
    Firing Range # 3
    Buildings 186, 187, 212, 213

    Evaluation of Response

    The proposed sampling scheme and the total number of samples deemed necessary in order to perform an adequate investigation submitted in the draft version of the work plan was designed when the above potential source areas was not known. As the above list represent additional areas of concern additional samples will have to be collected. Please modify the work plan to include the collection of additional samples in these areas.

23. **Section 3.1, Field Task,**
Page 1.

Please add the following task to this section.

Mag/GPR Survey:
To determine the extent of fill and to locate buried structures (Oil water separators, UICs, etc)

Test Pits:
Test pits should be dug in the following areas, fill area, scrap yard, UIC locations, oil water separator, drum storage area, underground pipes, discharge pipes and former building locations. In regards to the buildings test pits should focus on, potential source areas such as USTs, holding tanks, leach fields, etc. At all test pits samples should be collected.

Sediment Samples:
Sediment samples should be collected from the discharge pipes out fall locations (two locations per discharge pipe) and the area south and west of the drum storage area (beach and sediment samples, four locations in each of these general areas).

An analysis was performed on Firing Range # 1, which examined such factors as the target area, over shoot area, angle of fire, etc. to ascertain the area of affected sediments. Please repeat this analysis for Firing Range # 2 and # 3.

Evaluation of Response

See comment 23

24. **Section 3.1.3, Drilling and Soil Sampling**
Page 3.

The work plan notes that in accordance with EPA guidance surface soil samples will be collected in the 0-1 foot interval. Please be advised that is an ELUR is proposed for the site samples in the 0-2 foot interval will have to be collected and analyzed as required by the RIDEM Regulations.

Evaluation of Response

This issue has been resolved at NCBC and it is the Office of Waste Management hope that it will be resolved at NETC.

25. **Section 3.1.3, Jar Head Space Procedures**
Page 6.

The report states if conditions are below 32 F then the samples will be heated in a car. Headspace analysis is dependent upon volatilization. Effective volatilization does not occur at temperatures of 34 or 38 F. Typically, in order to achieve meaningful results the analysis should be conducted at a temperature of at least 65 F. Therefore, please modify the report to state that the samples will be heated in the car if the ambient temperature is less than 65 F.

Evaluation of Response

Comment has been addressed.

26. **Section 3.1.4, Monitoring Well Installation**
Page 8.

The State of Rhode Island Groundwater Regulations requires that the filter pack and the well screen must be sized for the prevalent geologic conditions. Please modify the work plan to state that a field geologist will determine the size of the filter pack. In addition, in order to avoid down time during well installation, please require that at least two different size filter pack sands be available at the site during the drilling process.

Evaluation of Response

Comment has been addressed.

27. **Section 3.1.4, Monitoring Well Installation**
Page 8.

Please add the following monitoring well locations:

Two wells in the scrap yard.
Two additional wells in the drum storage area.
One additional well in the fill area.

Finally, the monitoring wells should be installed after the mag survey; test pits etc have been completed as information from these activities may warrant changes in the location of the monitoring wells.

Evaluation of Response

In regards to the first part of the comments see comment # 22.

In regards to the second part of the comment the Navy has stated that a sequence of events will be stated to adjust sampling locations. The Office of Waste Management looks forward to reviewing and approving this sequence. .

28. **Section 3.1.7.1, Groundwater Sampling Procedure. Page 11.**

Please provide a provision to check for NAPLs using an oil water interface probe and a bailer. Also if NAPLs are present a sample must be collected of the NAPLs and analyzed for the contaminants of concern. LNAPLs can be sample via a bailer.

Evaluation of Response

Comment has been addressed.