



**TETRA TECH**

C-NAVY-06-09-3194W

June 19, 2009

Project Number 112G00825

Paul Kulpa  
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Rhode Island Department of Environmental Management  
235 Promenade Street  
Providence RI 02908-5767

Reference: CLEAN Contract No. N62467-04-D-0055  
Contract Task Order No. 405

Subject: Transmittal of Conference Call Summary  
Former Melville Water Tower Site  
Portsmouth, Rhode Island

Dear Mr. Kulpa:

On behalf of Ms. Winorma Johnson, at U.S. Navy NAVFAC, I am providing to you a summary of our discussions held during the conference call on May 28, 2009. The discussions were held based on your letter dated 4/29/09.

If you have any questions regarding this material, please do not hesitate to contact me.

Very truly yours,

A handwritten signature in black ink, appearing to read 'Stephen S. Parker', written over a circular stamp.

Stephen S. Parker, LSP  
Project Manager

SSP/lh

Encl.

- c: T. Finlayson, Gannett Fleming (w/encl.)
- W. Johnson, NAVFAC (w/encl.)
- G. Lombardo, USEPA (w/encl.)
- C. Mueller, NAVSTA (w/encl.)
- NAVSTA AR (c/o G. Wagner, TtNUS, w/encl.)
- J. Trepanowski (w/encl.)
- G. Glenn, TtNUS (w/o encl.)
- File 0825-3.2 (w/o encl.) File 0825-8.0 (w/encl.)

**Summary of Conference Call 5/28/09**

**RIDEM Evaluation of Response to  
Comments on the  
Draft Study Area Screening Evaluation Report  
Former Melville Navy Water Tower**

**1 Section 2.0, Previous Studies  
Page 2-2,**

This section of the report summarizes the results of the previous investigations conducted at the site. The report does not include a discussion of the collection of soil samples west of the tower by the United States Navy, which was the first investigation conducted at the site. Please include a discussion of this investigation in this section of the report.

*Evaluation of Response to Comments*

*Comment has been addressed/*

**2 Section 2.3.2, Paint Chip Sampling  
Page 2-5, 2nd Paragraph**

The report states that the concentration of PCBs found in the sample from the drum was due to incidental presence of PCBs and not due to its presence in paint. As this is a public document please expound on the incidental presence of PCBs, (that is whether the observed concentration represents what is typically found in soil, is a contaminant that was in the drum from another location, represents PCBs from a non paint source at the water tower, etc). If the source of the PCBs is not known this should be clearly stated in the report.

*Evaluation of Response to Comments*

*Comment has been addressed/*

**3 Section 2.3.2, Paint Chip Sampling  
Page 2-5, 4 th Paragraph**

This section of the report includes a discussion of the lead and arsenic results found in the paint and in the soil. Please add the following to this section of the report:

Elevated levels of arsenic were found in paint chips samples collected at the site. In addition, one soil sample collected immediately adjacent to the tower had an arsenic concentration of 1311 ppm. This is the highest concentration of arsenic observed in a soil sample collected from any site located in the State of Rhode Island. The distribution of arsenic at the site was similar to lead with the highest concentrations being found in the immediate vicinity of the tower.

*Evaluation of Response to Comments*

- The Navy agreed that the proposed revised section 2.3.1 and 2.3.2 discussing the limitations of XRF analysis was not needed in the document, and will not be included.
- RIDEM recognized that the concentration of 1311 ppm arsenic is already stated in the report and no additional information on that item needs to be added.
- RIDEM and the Navy agreed that the soil used for fill at the tower site could not be conclusively defined.

**4 Section 2.3.3, Soil Sampling  
Page 2-7, 3 rd Paragraph**

The report notes that paint chips were not evident in the soil samples indicating that that potential source of contamination may have been associated with sand blasting. Please be advised that the investigations and actions conducted at this site were prompted when a child brought home a paint chip containing lead. The Navy subsequently engaged in a daily activity of removing paint chips from the grassed and gravel areas surrounding the tower. This daily activity was deemed necessary as paint chips continued to peel off the tower and land in the surrounding play areas. Despite this effort paint chips still were found scattered throughout the site during the investigation conducted by RIDEM. The Office of Waste Management agrees that sand blasting operations may have been a source of the lead found in the area. Another clear source (which is known to the public) would have been peeling paint. Therefore, the report must note that the known source of lead observed at the site is peeling paint and a potential source is sand blasting operations.

*Evaluation of Response to Comments*

*Comment has been addressed*

**5 Section 2.3.3, Soil Sampling  
Page 2-8, 3 rd Paragraph**

The report notes that the elevated levels of lead found adjacent to the fence is more likely a results of traffic from the adjacent road. Please be advised that prior to the removal action blue paint chips were found in this area. Further, elevated levels of lead were typically not found in soil sample collected elsewhere adjacent to the road. Therefore, please remove this statement and simply note that as paint chips were found in this area the elevated levels of lead may have come from the tower.

*Evaluation of Response to Comments*

*In the response the Navy has stated that the comment is noted, however the text is correct and will not be changed. The observations at this site are that paint chips were observed in the vicinity of the fence and elevated levels of lead were found at these locations. Where paint chips were not present and along other location on the road, elevated levels of lead were not found in the soil samples. Therefore, the statement attributing the observed lead concentration to road traffic must be removed, (unless the Navy has performed an investigation to ascertain lead levels in soil samples along West Main to support their position).*

*The Navy has stated that the text is correct as written. Please be advised that representatives from the US Navy provided this information directly to RIDEM during a field inspection. Therefore, please modify the section as requested.*

Discussion 5/28/09:

- The Navy agreed to remove the second sentence of the last paragraph on Page 2-9 of the draft document, and state that the soil was covered in place.

**9 Section 2.4.1, Valve Chamber Excavation**  
**Page 2-10, 1 st Paragraph**

The report notes that the elevated levels of lead observed next to the fence are from road run off. Please remove this statement and any other similar statements from this section and other sections of the report.

*Evaluation of Response to Comments*

*See previous response.*

**10 Section 2.4.2, Demolition of Water Tower**  
**Page 2-10, 2 nd Paragraph**

“Demolition of Tower was conducted in August of 2006.”

Please change 2006 to 2007.

*Evaluation of Response to Comments*

*Comment has been addressed*

**11 Section 2.4.3, Soil Excavation**  
**Page 2-10, Whole Section**

Soils at and in the vicinity of the present day valve building was removed as part of this effort. Please include a discussion of this removal and the approximate yards taken off site.

*Evaluation of Response to Comments*

*The function of the SASE is to identify potential source areas and ascertain whether additional investigation and/or remediation are required. Therefore, please provide the requested information.*

Discussion 5/28/09:

- RIDEM stated that they need documentation of the volume and disposal information for soil removed during the installation of the valve chamber. The Navy agreed to supply this information to RIDEM from NAVSTA, but not as part of this report since it was conducted as a utility excavation for water connections. It was understood that post excavation data is provided in the report.

- No resolution was reached on the new comment: The Navy's position is that the final confirmation samples meet the criteria, and the risk assessment shows that there is no risk to receptors.

#### **14 Section 4.2, Evaluation of Arsenic Page 4-5.**

The report proposes using soil types SE and NE in the assessment. Please be advised that in order to use these soils types the following information must be included in the report: A US Soil Survey map depicting the soil types in the immediate vicinity of the water tower. A map depicting the location of the soil types which were used in comparison.

#### *Evaluation of Response to Comments*

*Based upon information presented in the response to comments, it is now evident that the NP soil type is found immediately adjacent to the site (it is found along the entire southern portion of the site). Accordingly, in order to conduct a background analysis, this soil type must be included in the assessment (please modify accordingly, and submit proposed background sample locations for approval).*

*The background location for a portion of the NE soil type is close to the site. The background location for the SE soil type is not (it is over 5 miles away). Further, the data group used for the SE soil type was found to be unacceptable unless outliers were removed. Therefore, in order to conduct a background assessment an SE location close to the site would have to be employed. Be advised that based upon the information presented in the response to comments suitable locations are found near the site.*

#### Discussion 5/28/09:

- RIDEM does not believe that the background soil conditions local to the water tower site is adequately characterized using the basewide background study. In particular, the soil bounding the site to the south is characterized as NP, which could be made up of any amount of five soil subtypes, and only three of these are characterized in the basewide background study.
- The Navy believes that the background study characterizes the soil present, but would follow up on the two soil subtypes not evaluated.
- It was agreed that the actual soil type(s) predominant at the tower site prior to construction cannot be determined now.
- The Navy agreed that speculation on the construction activities at the reservoir and water tower are inconclusive and do not need to be included in the SASE report.

#### Follow up:

- The two Newport soil subtypes not evaluated are NoC and NfB, neither of which are mapped anywhere in the vicinity of the site (they are not found on the soil maps of Aquidneck Island), indicating that they are very unlikely to be part of the NP soil mapped south of the site.

*The Navy has stated that it is not possible for all of the arsenic observed at the site to come from the paint. It is agreed that the arsenic at that site may have come from the paint, application of pesticides or a combination of sources. The intent of the comment was merely to state that the observed arsenic may have come from the paint, application of pesticides or other tower related sources. Therefore, please modify the text to reflect this.*

Discussion 5/28/09:

- Not resolved during the phone call. Navy proposes to revise the statement to say: "Analysis of the paint chip samples shows that arsenic was not a primary ingredient of the paint on the tower, suggesting that arsenic in soil was not wholly associated with the paint."

**18 Section 5.2, Presence of Arsenic  
Page 5-3.**

*"Overall soil concentrations are within the range of background concentrations"*

A report states in Appendix G that the following areas A, B and C are elevated with respect to background; Areas D is not elevated with respect to background. Therefore, please removed the quoted statement and simply state that Areas A, B and C are elevated with respect to background and Area D is not.

*Evaluation of Response to Comments*

*The Navy refers to Attachment C which contains a significant rewrite of Appendix G.*

*Please revise the modified Appendix G as follows:*

*Section 3.2, Background Soil  
Page C-2*

*Bullet 1*

*The report states that NE soils abut the site to the south and east and SE soils abut the site to the west. Please modify the report to state that NP soils abut the site to the south. SE soils do not abut the site, however they do abut the UD designation for the general area. NE soils abut the site to the east.*

*Bullet 2*

*The report notes that soils from the reservoir may have been used to fill in the area of the water tower. Further, the soils which abut the reservoir are SE and therefore SE soils may have been used as fill.*

*The soils which abut the reservoir are not limited to SE (MA and NE soil types also abut the reservoir). Therefore, using this line of reasoning the report would have to state that SE, NE and MA soils may have been used as fill.*

reveals that, at a minimum, site samples in Areas A, B and C are elevated with respect to background. In light of the above the report should recommend further action under CERCLA.

#### *Evaluation of Response to Comments*

*In Attachment D the Navy has indicated that the concentration of arsenic observed at the site is not due to paint. The Navy questions the validity of the XRF analysis, the probability of the arsenic coming from the paint and the likelihood that the observed arsenic is from native bedrock.*

*See comment 3 concerning the validity of the XRF analysis. In regards to the source of arsenic at the site, it may have come from the paint, application of pesticides or other tower related sources. In either case the distribution of lead and arsenic at the site is similar. In regards to the background study, as indicated in the attached comments, there are a number of problems with the validity of the study. The study itself conclude that depending upon the soil type which was assumed to be at the site the observed concentrations may or may not be above background.*

*Lead is still present at the site at concentrations above regulatory levels. Therefore, at a minimum an ELUR to address lead will be required for the site. In lieu of performing a site specific background study and addressing the other concerns noted in this comment package the Navy may elect to employ the ELUR for arsenic as well as lead.*

#### Discussion 5/28/09:

- Regarding the XRF analysis, refer to the discussion on Comment 3.
- Regarding the source of the arsenic in soil, refer to the discussion on comments 21 and 14.
- RIDEM is not in agreement with the conclusion statement (last sentence) of the proposed revised Section 5.3.
- Navy does not think that an ELUR is needed since the lead and arsenic does not pose an unacceptable risk.

#### **20 Appendix G, Page 1.**

Please include a figure depicting current arsenic distribution at the site.

#### *Evaluation of Response to Comments*

*The Navy has not provided the requested figure. Please be advised that this figure is typically provided as it offers information concerning the present distribution of arsenic at the site.*

#### Discussion 5/28/09:

- The Navy stated that such a figure is not planned. The concentrations of arsenic measured are presented in Table 3-1, as were the concentrations of lead. There are over 300 samples listed, mapped concentrations are unnecessary. Lead concentrations are not mapped either.

*Evaluation of Response to Comments*

*Comment has been addressed.*

**24 Appendix G, Section 4-2, Statistical Methods  
Page 3.**

Please include descriptive statistics, (range, average, medium, mode, kurtosis, etc) and list data in ascending concentrations for both the site and background samples.

*Evaluation of Response to Comments*

*Comment has been addressed.*

**25 Appendix G, Section 4-2, Statistical Methods  
Page 3.**

The report list a series of test, Student t test, Mann Whitney test, etc. As this is a public document the report should indicate which tests are parametric and which test are non parametric.

*Evaluation of Response to Comments*

*Please indicate which page contains the requested information.*

Discussion 5/28/09:

- The information is provided on Page C-4, Paragraph 3 of the April 9, 2009 letter. The comment was resolved.

**26 Appendix G, Section 4-2, Statistical Methods  
Page 3.**

Please provide additional information concerning the upper ranks test, including but not limited to a literature citation for the test employed, the equations used in the test and an example calculation.

*Evaluation of Response to Comments*

*Comment has been addressed.*