TETRA TECH

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Project Number 112G02124

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Mr. Paul Kulpa, Project Manager
Office of Waste Management
Rhode Island Department of Environmental Management
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Reference: CLEAN Contract No. N62470-08-D-1001
Contract Task Order No. WE19

Subject: Final Notes, June 24, 2009 Comment Resolution Meeting
Draft Remedial Investigation Report
Site 08, NUSC Disposal Area
NAVSTA Newport, Rhode Island

Dear Ms. Lombardo, Mr. Kulpa:

On behalf of Ms. Winoma Johnson (NAVFAC MidLant), submitted for your records are the final notes for the NUSC Disposal Area Draft RI comment resolution meeting held on June 24, 2009. Draft meeting notes were distributed by email on July 16, 2009 for your review and comment. Since no comments were received, these notes are considered to be final.

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

Very truly yours,

James R. Forrelli

James R. Forrelli, PE
Project Manager

JRF/lh

Enclosure

c: W. Johnson, NAVFAC MidLant (w/encl.)
C. Mueller, NAVSTA Newport (w/encl.)
Administrative Record c/o G. Wagner, TtNUS (w/encl.)
S. Parker, TtNUS (w/encl.)
D. Seiken, TtNUS (w/encl.)
J. Trepanowski,TtNUS (w/encl.)
File G02124-3.3 (w/o encl.)

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Meeting Notes
Comment Resolution Meeting
NUSC Disposal Area Draft RI (March 2009)
NAVSTA Newport, Rhode Island

June 24, 2009

The meeting convened at 9:35 AM

Present:
Winoma Johnson, NAVFAC
Cornelia Mueller, NAVSTA Newport
Ginny Lombardo, U.S. EPA (EPA)
Bart Hoskins, EPA
Chau Vu, EPA
Paul Kulpa, RIDEM
Bob Jupin, Tetra Tech NUS, Inc. (Tt)
Aaron Bernhardt, Tt
Dabra Seiken, Tt
James Forrelli, Tt

Telephone:
Greg Kemp (Gannett Fleming)
Todd Finlayson (Gannett Fleming)

EPA Comments/Navy Draft Responses (dated June 15, 2009) Discussion

EPA General Comments

General Comment (GC) 1. Beneficial Reuse of Groundwater: G. Lombardo stated that EPA has taken a very firm position on this issue. She advised that an EPA memorandum addressing beneficial groundwater reuse at federal facilities was recently signed and she will send copies when it becomes available. She stated that this issue will not hold up the RI as EPA's position can be discussed in the uncertainties section. Also, she stated that an FS RAO for groundwater should be "meet MCLs", unless the Navy wants to go into dispute. The arguments in the response would be considered in evaluating remedy timeframe for achieving MCLs. Under the 1986 EPA groundwater protection guidance if the state doesn't have an approved CSGWPP groundwater is considered a potential drinking water source "essentially" if it can supply a family of four. P. Kulpa advised there has been no movement by Rhode Island to become an EPA-approved CSGWPP state. He advised that the state would not stop installation of a water supply well in a GB aquifer. G. Lombardo advised that EPA is looking for an acknowledgement of the EPA's position in the uncertainties section or conclusions concerning the FS. G. Lombardo also stated that this should not prevent the RI from moving forward. EPA's position is that remediation will be required to cleanup groundwater to beneficial reuse.

Action Items:
Tt – Provide proposed language for Draft Final RI concerning MCLs in uncertainty section and in conclusions for FS by July 6, 2009.
EPA – Send copies of EPA memorandum on beneficial use of groundwater by July 9, 2009.

GC 2. Geophysical Investigation of the Paved Storage Area: G. Lombardo summarized EPA's concern that a drum could be present that contains material that could potentially be released contaminating the subsurface. J. Forrelli advised that's unlikely based on what has been discovered at the Site to date. W. Johnson stated the likely remedy, providing some type of

cover, would be protective and minimizes exposure risks. P. Kulpa advised that RIDEM shares EPA's concern and that state regulations require removal of free product, citing an URI site where RIDEM required test pits and hotspot excavation and the Hinkley Yacht Site where RIDEM required investigation in an active area. W. Johnson stated that the Navy will address the problem when the storage area is no longer in operational use; in the meanwhile the remedy will prevent exposure. G. Lombardo stated that the Site hasn't been adequately characterized. To address the issue concerning anomalies, it was agreed that the anomaly of most concern is Anomaly No. 1. The Navy could acknowledge in the RI that Anomaly No. 1 requires additional investigation to adequately design a remedy. This would allow the RI to move forward. The anomaly could be investigated during the FS or during RD/RA.

Action Item:
Tt – Provide proposed revised language for Draft Final RI concerning paved area Anomaly No. 1 by July 6, 2009.

GC 3. Groundwater Contamination from Building 179: G. Lombardo asked why the Building 179 Site is not covered by the FFA. She questioned if the NUSC Disposal Site should be enlarged or a new study area be designated. W. Johnson advised that the Building 179 Site is already being addressed under RIDEM regulations. The site can't be under the CERCLA program too; RIDEM has to give up authority. EPA and RIDEM should work out which regulatory program should apply. C. Mueller advised that NAVSTA Newport was not responsible for the implementing environmental programs at the NUWC property when the release occurred in the 1990s. NUWC funded and directed the original work, and that NAVSTA Newport has no correspondence on the project. P. Kulpa advised that Building 179 was a critical operation. He acknowledged that NUWC conducted a soil removal action but groundwater solvent contamination was not addressed. He also remembered that the Otto Fuel source area soil contamination was removed, but the source area extent of soil contamination by solvents was not investigated thoroughly. A discussion followed concerning how the Building 179 Site might be addressed under CERCLA as a part of the NUSC Disposal Area Site or as a separate site. No decision was reached, but it was decided additional research and discussion is required (see action items below).

Action Items:
RIDEM – provide status and position concerning Building 179 Site by July 2, 2009.
EPA/RIDEM – hold conference call regarding Building 179 Site under CERCLA by July 7, 2009.
Navy – review previous documentation for Building 179 Site by July 9, 2009 to plan for future investigation.

GC 4. TCE Plume: G. Lombardo stated that depending upon the remedies the Navy develops additional investigation may needed to evaluate TCE with depth. It was agreed that further action regarding evaluating the depth of TCE groundwater contamination would be deferred to the FS.

GC 5. Building 185 Complex: G. Lombardo stated that EPA's concern is historical releases from the Building 185 Complex. P. Kulpa stated that soil samples should be collected under the gravel at the Area 4 drain that the drain must registered under the RIDEM Underground Injection Control (UIC) program. W Johnson agreed that the sample could be collected when the Navy ceases use of the property and that if registering the drain is a requirement, that RIDEM could move forward with requesting that NAVSTA Newport register the drain. G. Kemp and P. Kulpa stated that this was a data gap that needs to be addressed. W Johnson stated that the Navy's position is the Area 4 drain sampling is not required from a CERCLA standpoint. P. Kulpa requested that the Navy provide documentation showing what has been stored at the Building 185 Complex. There was a discussion concerning the Otto fuel release form the Building 185 Complex Area 1 discovered in 2004, and the notification to RIDEM at that time. W Johnson noted that there is no documented release at Area 4. D. Seiken reviewed the soil sampling performed during the RI to investigate possible releases from the Building 185 Complex. D. Seiken provided that the RI included one soil boring (two soil samples) adjacent to and on the downgradient side of each of

the Building 185 storage sheds and there was no source observed. It was agreed the EPA and RIDEM would review the Building 185 Complex investigation conducted during the RI and propose additional investigation efforts and provide their assessment if these efforts can be deferred to the FS.

Action Item:
EPA/RIDEM – review Building 185 Complex investigation and propose any further action by July 9, 2009.

GC 7. 1,4 Dioxane: G. Lombardo stated that 1,4 Dioxane issue must be resolved separately from the Bldg 179 issue and adequately to address risk. She indicated that this can be conducted during the FS. She stated that there is a potential major risk form vapor intrusion to indoor air from groundwater. Chau Vu noted that according to the IRIS assessment 1,4 Dioxane is seventeen times more toxic than previously thought via the inhalation pathway and there is also a non-cancer toxicity. She stated that this document is in the open comment phase (EPA does not expect significant comments) and would be finalized sometime next year. W. Johnson stated that the Navy has agreed to address 1,4 Dioxane sampling under the Building 179 Site investigation. G. Lombardo advised that this was acceptable depending on the time track for the Building 179 Site investigation. Chau Vu noted the very low detection level for 1,4 Dioxane and that the advisory level for this compound is being revised to a more stringent level. W. Johnson advised that she would discuss this issue with the Navy risk assessor.

Action Items:
Navy – follow up with Navy risk assessor concerning 1,4 dioxane sampling by July 3, 2009.
Tt – If Navy agrees to 1,4 dioxane sampling, provide proposed language concerning sampling for Draft Final RI by July 6, 2009.

EPA Specific Comments

SC 15. Page 3-9, Section 3.2.2.1: ...TP-103 and TP-105...: It was agreed that the discussion of follow up actions taken after the drum discovery would be revised to clarify why the test pit excavations were terminated.

SC 32. Page 8-36, Section 8.5: ...unacceptable human health risk concerns to be addressed by the Feasibility Study.:

Action Item:
EPA – review response to EPA SC 32 after reassessing other ecological risk assessment comments response by July 2, 2009.

EPA Human Health Risk Assessment General Comments

HHRA GC 2. ...practice of using 1/2 of the reporting limit as a proxy concentration for calculating EPC for non-detects...: Bob Jupin explained that the work plan was followed. One half the detection limit was used for non-detected values in the calculation of the exposure point concentrations in the human health risk assessment; however the ProUCL software was not used. EPA requested the exposure point concentrations be recalculated using methodology presented in the ProUCL guidance. Bob Jupin advised that this will not change the risk assessment conclusions and proposed that text be added to the Draft Final RI acknowledging the different methods used and discussing the issue in the uncertainty section. It was agreed that borderline COPCs in all media be checked using the ProUCL software. It was noted that the ecological risk assessment used the same exposure point concentrations as the human health risk assessment. A. Bernhardt asked if the ecological risk assessment exposure point concentrations should be recalculated.

Action Items:

Tt – Provide proposed language to address uncertainty in using one-half reporting limit versus ProUCL by July 6, 2009.
Tt – Review borderline COPCs from 10-7 to 10-6 to see if they are COCs by July 6, 2009.

EPA Human Health Risk Assessment Specific Comments

HHRA SC 6. Page 6-59, Section 6.6: Please use the equations in RAGS B to calculate the site-specific preliminary remedial goals...: It was agreed that discussion would be added to the human health risk assessment section text to make the calculation more transparent and that a sample calculation would be presented in the text.

HHRA SC 8. Table 6-15: ...revise the target vapor intrusion bedrock groundwater screening toxicity values for ethylbenzene, PCE, TCE, and vinyl chloride to 3.04 µg/L, 0.55 µg/L, 2.89 µg/L, and 0.5 µg/L, respectively...: Chau Vu noted that the vinyl chloride screening toxicity value presented in the comment is incorrect; it should have been 0.32 µg/L.

EPA Ecological Risk Assessment General Comments

ERA GC 1. ...80% survival rule... : It was agreed that discussion and use of the 80% survival rule would be removed form the report text and tables and that it would be discussed in the uncertainty section.

Action Item:
Tt – Provide proposed language for Draft Final RI concerning 80 percent survival rate by July 6, 2009.

ERA GC 2. ... straight regression analysis is unlikely to give any clear association between site contaminants and toxicity in situations with multiple contaminants and few samples... : Bart Hoskins handed out example table used to present results for site with similar circumstances. A. Bernhardt advised that a similar approach was used to present the data in Table 7-28 and that the response to the comment would be changed to state that in addition to regression analysis other techniques were used to evaluate the data. The issue was not resolved; EPA will review the report further.

Action Item:
EPA – Review ERA to evaluate risk driving chemicals by July 2, 2009.

ERA GC 3. ... include a comparison of measured fish tissue concentrations to Critical Body Residue (CBR) values for fish.: It was agreed that EPA would provide CBR values.

Action Item:
EPA – Provide CBR data to Tt by June 25, 2009.

EPA Ecological Risk Assessment Specific Comments

ERA SC 3. Section 7.3.4.1: Metals benchmark comparisons... : After discussion this comment was retracted by EPA.

ERA SC 5. Page 7-10, Section 7.3.4.4: ... potential effects of PAHs would be better understood for wildlife if HMW PAHs, LMW PAHs, and total PAHs were evaluated in the food chain models.: After discussion, EPA agreed that the draft Navy response is acceptable.

ERA SC 6. Page 7-11 – 7-12, Section 7.4.1: ...evaluation of potential risk to plants... : A. Bernhardt stated that the work plan was followed. It was agreed that the uncertainty section text regarding the plant toxicity evaluation would be expanded.

Action Item:
Tt – Provide proposed uncertainty language for Draft Final RI to address plant toxicity issue by July 6, 2009.

ERA SC 7. Page 7-13, Section 7.4.2.1: ...elimination of carbazole and dibenzofuran is premature... : After discussion, EPA acknowledged that the draft Navy response is acceptable.

ERA SC 8. Section 7.4.2.2: ... interpretation of toxicity test results ... : It was agreed that this comment will be addressed by the response to ERA GC 1.

ERA SC 9. Page 7-37, Section 7.4.5: ...fish tissue sample size may not be adequate... : A. Bernhardt advised that the work plan was followed. It was agreed that the text would be revised to discuss any fish observed but not collected as samples.

Action Item:
Tt – Provide additional information on fish caught and not sampled by July 6, 2009.

ERA SC 13. Table 7-1: EPA uses both central tendency (mean) and reasonable maximum (95% UCL) risk calculations... : EPA agreed that the response is acceptable.

ERA SC 14. Table 7-3: ... toxicity thresholds for AVS/SEM... : After discussion this comment was retracted by EPA.

ERA SC 15. Table 7-5: ... 1% incidental soil ingestion for the shrew... : After discussion this comment was retracted by EPA.

ERA SC 16. Table 7-6: ...surface water samples... : It was agreed that the SASE and RI surface water data would be compared.

Action Item:
Tt – Confirm that surface water data is higher in SASE by July 6, 2009.

ERA SC 19. Tables 7-13 to 7-17: ... survival and growth are statistically different from reference... : After discussion this comment was retracted by EPA.

Submittal Schedule

The following scheduled was proposed for the submittal of final comment responses and the Draft Final RI report.

Submit Final Responses to Comments on the Draft RI	July 24, 2009
Submit Draft Final RI Report	September 8, 2009

RIDEM Comments/Navy Draft Responses (dated June 19, 2009) Discussion

P. Kulpa stated that he has not had the opportunity to review the Navy's responses to RIDEM's comments as the responses were provided on July 19, 2009. He suggested scheduling a teleconference to discuss the responses after he completes his review. W. Johnson noted that he had agreed to the schedule. A schedule for RIDEM to identify Navy responses that require further discussion was proposed.

Action Items:
RIDEM – Review Navy Responses to RIDEM Comments and identify only responses that require further discussion by July 2, 2009.

Navy – Based on RIDEM response, provide indication as to whether final responses can be provided by July 24, 2009.

At the Navy's request the following RIDEM comments/Navy responses were discussed.

R 27. Section 4.1.2, Unexposed Surface Soil Samples, Page 4-10: D. Seiken pointed out that in accordance with the work plan, samples were not collected in the interval immediately under the pavement.

R 50. Section 4.2.7.1, Summary of Groundwater Contamination, VOCs, Page 4-52: P. Kulpa advised he would provide RIDEM's interpretation of the groundwater contours.

Action Item:
RIDEM – Provide RIDEM's interpretation of groundwater contours to Tt for evaluation by July 9, 2009.

R 62. Section 4.4.3, Earthworm Tissue Sample, Page 4-74, Paragraph 2: The Navy advised RIDEM that this response would be revised based in the response to comment No. 61.

R 64. Section 6.0, Human Health Risk Assessments, Page 6-1: P. Kulpa requested that the Navy provide the variables used in the human health risk assessment particularly for the recreational scenario.

Action Item:
Tt – Provide to RIDEM on values used for recreational scenario by July 6, 2009.

R 86. Section 7.4.2.1, Chemistry Evaluation, Page 7-12: A. Bernhardt advised that the testing did not show toxicity to earthworms.

R 87. Section 7.4.3.1, Chemistry Evaluation, Page 7-20: A discussion was held concerning the acceptability of the reference pond.

R 92. Section 7.4.3.2, Toxicity Test Evaluation, Page 7-22: A. Bernhardt clarified that the 80 percent survival threshold is for the laboratory control samples, not the reference samples.

R 93. Section 7.4.3.2, Toxicity Test Evaluation, Page 7-22: A. Bernhardt pointed out that the comment contradicts EPA guidance. Bart Hoskins agreed with the Navy's position.

R 94. Section 7.4.3.2, Toxicity Test Evaluation, Page 7-26: A. Bernhardt and B Hoskins explained that the standard approach was followed; P. Kulpa advised he would discuss with he RIDEM ecological risk assessor.

R 97. Section 7.4.3.2, Toxicity Test Evaluation, Page 7-26: P. Kupla advised he would discuss with he RIDEM ecological risk assessor.

The meeting adjourned at 3:00 PM.