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RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT COMMENTS TO
DRAFT SAMPLING AND ANALYSIS PLAN FOR DATA GAPS ASSESSMENT SITE 10 TANK
FARM 2 NETC WITH TRANSMITTAL NS NEWPORT RI
04/12/2011
RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT



RHODE ISLAND
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

235 Promenade Street, Providence, RI 02908-5767

TDD 401-222-4462

12 April 2011

Roberto Pagtalunan, P.E.
NAVFAC MIDLANT (Code OPTE3)
Environmental Restoration
Building Z-144, Room 109
9742 Maryland Avenue
Norfolk, VA 23511-3095

Re: Draft Sampling and Analysis Plan for the Data Gaps Assessment
Site 10, Tank Farm 2, NETC

Dear Mr. Pagtalunan,

The Office of Waste Management at the Rhode Island Department of Environmental Management has conducted a review of the *Draft Sampling and Analysis Plan for the Data Gaps Assessment*, dated February 2011 for Tank Farm 2 (Site 10), Naval Station Newport, located in Portsmouth, RI. As a result of this review, this Office has generated the attached comments on the *Draft Sampling and Analysis Plan for the Data Gaps Assessment*.

If you have any questions in regards to this letter, please contact me at (401) 222-2797, extension 7148 or by e-mail at gary.jablonski@dem.ri.gov.

Sincerely,

Gary Jablonski, Principal Engineer
Office of Waste Management

cc: Matthew DeStefano, DEM OWM
Richard Gottlieb, DEM OWM
Pamela Crump, DEM OWM
Darlene Ward, NSN
Kymberlee Keckler, EPA Region I
✓ Stephen Parker, Tetra Tech

**Comments on
Sampling and Analysis Plan for the Data Gaps Assessment
Site 10, Tank Farm 2, NETC**

General Comments:

1. Releases from tanks and other sources have been documented at the site. Please implement the work as outlined in the 2007 Work Plan submitted as an attachment to RIDEM's response to comments for Tank Farm 3 submitted on March 23, 2011.
2. Please submit, as part of the response to comments, a series of figures containing cross sections and plan views of the site, showing the location of soil and groundwater sample results (TPH, total SVOCs, etc.) and historical presence of free product including sheens.
3. Free product was observed flowing into the drainage sump pit at the bottom of the pump chamber for Tank 23. Please include an inspection of the pump chambers, including sumps, for signs of a release as well as any other potential sources of contamination. Please modify this SAP accordingly.
4. Please propose in this SAP to collect a representative number of samples from along the fence line to be analyzed for TPH, lead and arsenic. At a minimum, collect one sample from each side of the fence (north, south, east, and west).
5. Firefighting foams were known to contain chlorinated compounds. Foam Storage Buildings 105 and 104 are located west of the southern access road and north of the eastern access road, respectively. Please add these buildings to the areas to be investigated and sampled for releases of chlorinated organic compounds and lead.
6. The fuel distribution line/bottom sediment and water lines that transverse the tank farm contain a number of gate boxes or control valves. Please modify this SAP to include the investigation and sampling of these areas.
7. All figures show the Newport Naval Cable TV area as outside the Tank Farm 2 property boundaries. However, this area is considered part of the Tank Farm 2 property. Please revise the figures to show this area within the Tank Farm 2 property boundaries.
8. Based upon the location of the JP-5 soil piles as shown in Figure 2, the area of the JP-5 soil piles extends to the access road located to the east. According to the figures showing test pit locations in this area in the *Draft Site Investigation and Remedial Action Report for Tank Farm 2 (July 2006)*, the test pits do not appear to cover the entire area, particularly in the northern section. Please explain this discrepancy and investigate as necessary.
9. As noted in previous comments on the *Work Plan for Site Closure of Tank Farm 2 (Sep 2003)*, buoys were stored on the northern end of the site. The buoys and associated submarine netting were known to contain anti-corrosive grease as well as lead paint. Please

indicate if this area was investigated and if not, please revise this SAP to include sampling in this area for TPH and lead.

10. The *Site Investigation and Remedial Action Report* does not appear to contain the results of the investigation and sampling of the catch basins and drainage swales as per DLA's response to RIDEM's comment #26 on May 23, 2005. If this sampling was conducted, please include the results in this SAP, and in the response to comments. If the sampling was not conducted, please modify this SAP to include the investigation and sampling of these areas.

Specific Comments:

1. **Page 4, Executive Summary; 2nd Paragraph, 4th and 5th sentences.**

"Soil samples will be collected using a drill rig or direct-push methods, at depths of 0 to 1, 2 to 4 and 8 to 10 inches. Groundwater samples will not be collected in these areas because groundwater has been monitored, and results did not suggest contamination migration from soil to groundwater."

Please change "inches" to "feet". RIDEM requests that soil samples be taken in the 0 to 2 foot interval. In addition, please collect sub-surface soils at depths exhibiting the highest evidence of field contamination. Please collect continuous split-spoon samples two feet into the historical low water table. Also, please collect groundwater samples at these areas.

2. **Page 4, Executive Summary; 3rd paragraph.**

"New monitoring wells will be installed and sampled and existing monitoring wells will be sampled. Monitoring wells will be gauged for NAPL. Soil samples will also be collected from each new boring."

Please collect continuous split-spoons to two feet into the historical low water table for each new boring. Please collect samples from the zones which exhibit the highest field evidence of contamination. If no field evidence of contamination exists, please collect the soil sample at the soil/groundwater interface.

3. **Page 9, SAP Worksheet #2 – SAP Identifying Information; Bullet #5.**

Two of the documents listed here were a source of confusion. The *Draft Condensed Work Plan for Soil and Groundwater Sampling, Tank Farm 2 (TtEC, May 2005)* is a response to RIDEM comments on the *Draft Condensed Work Plan for Soil and Groundwater Sampling, Tank Farm 2 (TtEC, Feb 2005)*. Also, the *Technical Memorandum – Plan for Sampling at Tank Farm 2* is not an actual memorandum and instead should be labeled as an email dated December 14, 2010 titled "Tank Farm 2 Summary of issues for SAP" (including Table A-1). Please update this worksheet accordingly.

4. **Page 13, Worksheet #6, Communication Pathways.**

Please add an additional row to Worksheet #6 stating the following: *“Both agencies will be notified 48 hours prior to commencement of field activities, 24 hours prior to any change in schedule, and Tetra Tech will provide weekly field updates via email. This weekly update shall include at a minimum the activities performed that week and a schedule of activities to be performed the following week.”*

Also in the 4th row under “Procedure”, after *“PM informs RPM by phone within 24 hrs, if warranted”*, please add *“after obtaining approval from both agencies.”*

5. Page 20, Section 10.1, Site Location and Background; Numbered bullets.

As stated in previous comments by RIDEM on the *Draft Work Plan for Site Closure, Tank Farm 2 (Sep 2003)*, a number of areas of potential concern were identified by RIDEM. These include:

- The Foamite Building;
- The Gasoline Storage Area;
- Structures along the eastern fence line (southern end);
- A structure west of the north access road;
- Numerous buildings, structures, etc. on the northwestern corner of the site;
- Potential UICs associated with the piping and drainage network; and,
- The area of disturbed soil along the eastern fenceline.

Also, east of the southern gate was a series of buildings, which over time were modified and used for a variety of activities, including: Naval Contractor Buildings, Public Works Garage, and Naval Gas Station. Potential areas of concern associated with this complex include underground storage tanks for heating, underground gasoline and diesel storage tanks, discharges of solvents and waste oils associated with maintenance activities, etc.

DLA has stated that these areas are not the responsibility of DESC and will be addressed by the Navy. Therefore, please add these above listed areas of concern to Figure 2 and fully investigate and sample as necessary in this SAP.

6. Page 23, Section 10.5.3, Soil Boring Sampling; 2nd paragraph, 3rd sentence.

“One soil sample was taken from each boring at a depth of approximately 10 to 12 feet, which is just under the 10-foot deep concrete lined utility trench that houses the fuel distribution lines (Figure 2).”

Please provide engineering plans, as built drawings, etc. to verify that the bottom depth of the concrete lined utility trench is 10-feet.

7. Page 25, Section 10.5.5, Soil Testing & Excavation; 3rd paragraph.

According to the *Site Investigation and Remedial Action Report (TtEC, July 2006)*, page 2-2, soil samples were collected around former transformer Buildings 218 and 219. Results of laboratory analysis showed levels of PCBs in two samples near Building 219 to be higher

than RDEC and ICDEC standards of 10 ppm. Also, one lead sample result near Building 218 exceeded the RDEC criteria of 150 ppm. In previous responses to RIDEM's comments, the DLA stated that these areas will be addressed by the Navy. Please include these areas of concern to the SAP, with all historical analytical data, and show the locations of Buildings 218 and 219 on Figures 2 and 8.

8. Page 28, Section 10.7, Areas Requiring Further Investigation; Whole Section.

As stated on p. 2-11 of the *Draft Site Investigation and Remedial Action Report (July 2006)*, the following areas remained above the RIDEM Direct Exposure Criteria:

Sample Location	Criteria Exceeded	GPS Coordinate of Sample		Associated Samples
		Northing	Easting	
Building 219 North Wall	RDEC/ICDEC PCB	181623.312	388846.884	TF2-B219-1
Building 219 West Wall	RDEC/ICDEC PCB	181610.988	388830.611	TF2-B219-4
Building 218 Battery Storage Area North Wall	RDEC LEAD	182808.09	3888656.771	TF2-B218-PB7
AOC-26 (JP-5 soil piles)	RDEC TPH	182357.014 182361.84	389012.618 389018.162	TF2-026-2 TF2-026-3
Soils below Tank 25 Vent	RDEC SVOCS	181431.518	388509.233	TF2-tank-25-2

In this section of the SAP, please propose additional sampling in the areas around Buildings 218 and 219, in AOC-26, around Tank 25 and any other areas which exceed RIDEM's residential or leachability criteria.

9. Page 32, Section 11.2.2, Laboratory Chemical Data; 2nd bullet.

Please ensure that the extractable TPH range covers all of the fuels that were stored at the site (marine diesel, F-76, Navy Special, etc.) Please run all GCs to C-44 and/or baseline and quantify all petroleum hydrocarbons using standards.

10. Page 32, Section 11.2.3, Project Screening Levels; Whole Section.

Please include RIDEM's Residential Direct Exposure Criteria (RDEC), Leachability Criteria, Product requirements and GB Groundwater Criteria in the determination of "PSLs" for the Category 1 areas. Also, please include TPH, PCBs and lead in the list of contaminants to be analyzed for in both Category 1 and Category 2 areas. Please change the criteria for Category 2 from RIDEM's ICDEC to RDEC, and include EPA's MCLs and ECO SSLs.

11. Figure No. 2, Site Plan:

According to Figure No. 3 which shows the Tank Farm 2 site boundaries, this site includes the area in the north-west corner near Tank Farm 1. Please expand Figure No. 2 to include this area of the site, and depict any known structures, pipelines, etc. Please investigate these areas as stated above in Comment # 5.

Figure No. 2 is difficult to read. Please provide Figure No. 2 as a large fold-out map, and include the locations of AOCs 001, 003, 004 and 005.

12. Figure No. 3, Northern Portion of the Site, Category 1 AOCs.

It is difficult to determine where the AOCs are in relation to the visible structures. Please update Figure No. 3 with a more focused background.

13. Figure No. 5, Planned Soil Sampling Locations, Category 1/AOC-001.

Please add two additional sampling locations near the north-west and south-west corners of the grid, or explain why these locations were not included.

14. Figure Nos. 5-7, Planned Soil Sampling Locations, AOCs 001, 003, 004 & 005.

For all AOCs, please adjust the proposed grid pattern to allow samples to be taken in close proximity to those which previously exhibited elevated levels of contamination. Also, please include provisions in the SAP to require additional sampling to track contamination. To aid in tracking areas of contamination, please use field sampling techniques such as Petroflag in addition to laboratory samples.

15. Figure No. 8, Proposed Sample Location Map.

Similar to Figure No. 2, this figure is difficult to read. Please provide Figure No. 3 as a large fold-out map.

16. Appendix B, Determination of Soil PSLs, Tables B-1, B-2 and B-3

Please modify these tables to include the following:

- TPH, PCBs and Lead in Categories 1 & 2;
- RIDEM's residential, leachability and groundwater criteria in Category 1;
- EPA's MCLs and ECO SSLs in Category 2;
- TPH for groundwater in Category 2; and,
- Presence of product in groundwater or soil for Category 1 & 2.

Please combine GROs and DROs and compare to residential TPH and UCLs. Please note that RIDEM considers surface soil for both Categories 1 & 2 to be 0-2 ft. The residential criteria for Category 1 is from the surface (0 ft) to the top of the water table.

Please note in a footnote that the requirements of RIDEM's Site Remediation, LUST, UIC, Groundwater, and Oil Pollution Control Regulations are applicable to both the PSLs and the overall investigation of the site.

17. Appendix C, Tetra Tech and EPA SOPs.

Please gauge the monitoring wells for NAPL using an oil/water interface probe and a bailer prior to and after development/purging.

Please be advised that in accordance with RIDEM's Groundwater Regulations, all monitoring wells installed at the site must be designed to allow for the free movement of contamination into the wells. These tanks were used to store Navy Special and black oil. As such, a filter pack of standard sand is inappropriate. Therefore, please specify that the filter pack for the monitoring wells will consist of course sand and gravel.

