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LETTER AND COMMENTS FROM U S EPA REGION 1 REGARDING DRAFT SAMPLING AND
ANALYSIS PLAN FOR ETHYL BLENDING PLANT TANK FARM 1 NS NEWPORT RI
6/3/2011
U S EPA REGION 1



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, REGION I

5 Post Office Square, Suite 100
Boston, MA 02109-3912

June 3, 2011

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

Re: Draft Sampling and Analysis Plan for the Ethyl Blending Plant, Tank Farm 1

Dear Mr. Pagtalunan:

Thank you for the opportunity to review the *Draft Sampling and Analysis Plan for the Ethyl Blending Plant, Tank Farm 1* at the Naval Education and Training Center Superfund Site in Newport, Rhode Island, dated April 2011 (referred to as the SAP). The document presents the sampling design and rationale and the analytical and data assessment requirements for the project in accordance with the requirements of the *Uniform Federal Policy for Quality Assurance Plans* and *EPA Guidance for Quality Assurance Project Plans*. Detailed comments are provided in Attachment A.

The Navy has selected only the ethyl blending plant as a Category 1 area at Tank Farm 1. As has been the practice at other tank farms, the Navy typically stored and maintained batteries at its local electrical substations/control buildings. Lead is a CERCLA contaminant and could be present at a electrical substations/control building. Please clarify if such a building exists at Tank Farm 1 and if it does, include it in this investigation. EPA notes that an electrical substation exists immediately south of the southern boundary of Tank Farm 1. If this building serviced Tank Farm 1, please include it within the scope of the Tank Farm 1 investigation.

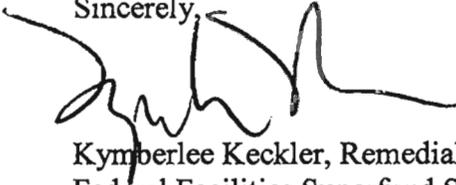
Groundwater at this site and particularly at the points of interest for this SAP is within the bedrock. Groundwater is likely to migrate via bedrock fractures and therefore, it is not apparent that the existing or proposed groundwater monitoring wells would capture contamination migrating in the groundwater. Unless the monitoring wells have been placed based on an investigation of groundwater fractures it appears that the proposed groundwater monitoring locations are not reliable locations for capturing contamination that might be migrating with groundwater.

Please supplement this SAP with information confirming the groundwater contours/groundwater flow direction at Tank Farm 1 and specifically in the vicinity of the ethyl blending plant.

Local groundwater flow directions are likely influenced by the continuous operation of the tank ring drains. Tank 17 is located less than 200 feet north of the ethyl blending plant and may affect the groundwater flow direction near the plant. This should be considered and possibly evaluated when selecting groundwater monitoring locations for this SAP.

I look forward to working with you and the Rhode Island Department of Environmental Management toward the cleanup of Tank Farm 1. Please do not hesitate to contact me at (617) 918-1385 should you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read 'Kimberlee Keckler', written over a horizontal line.

Kimberlee Keckler, Remedial Project Manager
Federal Facilities Superfund Section

Attachment

cc: Gary Jablonski, RIDEM, Providence, RI
Darlene Ward, NETC, Newport, RI
Steven Parker, Tetra Tech-NUS, Wilmington, MA

ATTACHMENT A

<u>Page</u>	<u>Comment</u>
p. 9, Worksheet 2	Please add the scoping session from February 3, 2011 to the list in paragraph 4 (<i>see</i> page 20).
p. 18, Worksheet 9	Regarding the comments for the November 17, 2010 scoping session, please determine if utilities are active because if they are not, sampling at the transformers should be included in this sampling plan. EPA notes that the Site has reportedly been inactive since the termination of DESC operations in the early 1990s so it is not clear why the utilities would be active or why this site should be considered active.
p. 19, Worksheet 9	The projected date of sampling should be July 2011.
p. 20, Worksheet 9	The projected date of sampling should be July 2011.
p. 22, §10.3	Please supplement the second paragraph to indicate that the groundwater elevation in the wells surrounding the ethyl blending plant is beneath the bedrock surface. This is an important consideration in selecting or placing monitoring wells for the ethyl blending plant.
p. 28, §11.2.1	For ease of reference, please supplement the text in the third bullet to indicate that NGVD 1929 will be used for vertical measurements. Please confirm that the horizontal and vertical datums proposed are consistent with those previously used at the site.
p. 29, §11.2.3	Regarding the third bullet, because EPA considers the top twelve inches surface soil, please clarify that shallow subsurface soil is accessible to some terrestrial receptors.
p. 30, §11.2.3	The first paragraph states that non-detected results greater than the PSLs will be treated as values less than the PSL for decision-making. Because the purpose of the sampling is to screen the site, the screening criteria should be selected to conservatively capture potential contamination rather than to eliminate potential contamination of concern. Therefore, this sampling and analysis program should be designed accordingly and non-detected results greater than the PSLs should preferably be treated as exceedances or as data gaps. Please edit the document accordingly.
p. 31, §11.4.1	There are no background data for VOCs and EPA does not accept the use of literature background values for PAHs to screen out contaminants at this stage. Please rewrite this section.
p. 31, §11.4.2	No site-specific background data are available for PAHs for the site and it is not appropriate to eliminate contaminants based on literature

background values. Decisions for these contaminants in the Category 1 AOCs should be made without consideration to background and if background concentrations appear to be potentially relevant then further discussions and actions including a background study would be appropriate.

- p. 34, Worksheet 13 Please delete the second reference in this worksheet by Bradley, Magee, and Allen because literature values are not appropriate for screening contaminants.
- p. 46, Worksheet 15b Please clarify why DBCP will not be analyzed by Method SW 846 8011 (similar to EDB). Since EDB is going to be analyzed by Method 8011, it makes sense to also analyze for DBCP. Method 8011 will also have a significantly lower reporting limit for DBCP than 8260B.
- p. 50, Worksheet 15b The analytical Methods listed refer to 7471B, but the reference should be 7470A for groundwater.
- p. 50, Worksheet #15b The PSLs for arsenic and chromium are almost 50 times lower than the other metals, and the laboratory cannot meet the project goals for either metal. Please clarify why the MCLs are not being used for arsenic and chromium.
- p. 53, Worksheet 17 The second paragraph states that existing wells GZ-101 and GT-124 will be sampled for this SAP. Please note that GT-124 has consistently been dry when sampled and GZ-101 has occasionally been dry (both were dry when Shaw sampled in 2010). Therefore, please include a contingency plan to get additional groundwater data should one or both of these wells be dry.
- p. 54, Worksheet 17 The second paragraph discusses the collection of soil samples stating that the second interval sampled will be directly above the water table. Please clarify the intent if the water table is beneath the bedrock surface, as it appears it is near the ethyl blending plant.
- p. 56, Table 17-1
- a) Because the site groundwater is in bedrock near the ethyl blending plant, the usefulness of the groundwater monitoring wells identified in this table and in Figures 3 and 5 for capturing contamination migrating from the ethyl blending plant is questionable because fractures will likely determine the groundwater flow direction. Please re-evaluate the plan for collecting relevant groundwater samples.
 - b) Please do not change the name for the two existing groundwater monitoring wells. Presumably the determination of geological conditions for the existing wells will be based on the boring logs prepared when the wells were first installed.
- p. 57, Worksheet 18
- a) Two of the four wells listed in this Worksheet are existing, so no soil

samples will be collected from them unless the Navy is proposing to install new borings adjacent to these existing wells. Please clarify.

b) The names for the two existing groundwater monitoring wells should not be changed.

p. 58, Worksheet 19

This Worksheet lists SOP CA-391 for water analysis for EDB, but Worksheet 23 and Worksheet 28a list SOP CA-319. Please correct.

p. 59, Worksheet 20

a) Please correct the number of soil samples included in this table.

b) Please clarify Note 4 that calls for shipping one trip blank per cooler. Because VOCs and EDB will be analyzed by separate methods for groundwater samples, clarify whether the Navy intends to provide separate trip blanks for VOC and EDB analysis as implied by this table.

p. 62, Worksheet 23

Worksheet 19 lists CA-204 for PAH/SVOC analysis for soil and water, but that SOP is not listed in Worksheet 23 or 28c. The later two list CA-226 which is not included in Worksheet 19. Please correct.

p. 73

Rinsate Blanks (second bullet): Is there a "1" missing at the end of the example (*i.e.*, TF1-W-RB01-0811)?

p. 83, Worksheet #28f

The matrix spike recovery is listed as 80-120% under the Method Acceptance Limits, but it is 75-125% under the Measurement Performance Criteria (MPC). Please correct.

p. 88, Worksheet 30

a) Please delete Method 6010C from this table because it is not being used according to Worksheets 19 and 28f.

b) Please clarify for SVOCs/PAHs that both full scan and SIM will be run.

p. 96, Worksheet 36

Please delete Method 6010C from this table for metals because it is not being used according to Worksheets 19 and 28f.

Figure 4

a) This figure includes an infiltration pathway to overburden groundwater, but near the ethyl blending plant and over much of Tank Farm 1, the groundwater table is beneath the bedrock surface. At a minimum, add bedrock groundwater to this figure and clarify that overburden groundwater may not exist near the ethyl blending plant.

b) Please correct or clarify the bulleted list of exposure pathways and receptors on the right side of the figure. The exposure identified for the Onsite Construction Worker includes groundwater but this receptor is listed under *Soil* not *Groundwater/Soil*.

Figure 5

a) Please supplement the sampling plan with at least four additional borings immediately adjacent to the four sides of the ethyl blending

building.

b) The established grid for sampling proposes very few samples within the limits of the AOCs. This is not acceptable. Most of the samples should be collected within the boundaries of the AOCs, to document the presence or absence of contamination, with some additional samples located around the perimeters to attempt to characterize the extent of contamination. Please revise the sampling plan to better characterize the AOCs.

Appendix A-4

This appendix suggests literature-based background concentrations for PAHs in soil for use at Tank Farm 1. The proposed values for PAHs are based on samples collected from urban areas much larger and more densely populated than that at Tank Farm 1. Further, the proposed background values result in exceedance of EPA's acceptable risk range for residential exposure and a cumulative risk for industrial exposure in excess of RIDEM's criterion of 1×10^{-5} excess lifetime cancer risk based on Regional Screening Level concentrations. Screening decisions for these contaminants in the Category 1 AOCs should be made without consideration to background and if background concentrations appear to be potentially relevant then further discussions and actions, including a background study, would be appropriate.

Appendix D

a) Please correct references in the field forms to ensure that they refer to Tank Farm 1.

b) GRO, ExTPH, and dioxins are not analytes of concern for this SAP. Please correct the forms in this appendix to refer to the correct analytes.

c) Please change references from 4°C to 6°C on the forms.

Appendix E, p. L-2-2

a) The discussion in the second full paragraph is ambiguous and needs to more accurately describe the procedure to be followed. For example, the first sentence should refer to each interval to be collected, not each interval to be sampled. The text should clarify that, in addition to the two fixed intervals that will be sampled, the third sample interval will be selected based on the initial PID screening results and/or visual and olfactory observations. Each jar headspace sample needs to be collected as close as possible to the portion of the sample interval collected for lab analysis. Multiple VOC samples will initially be collected, one from each soil interval collected between the top and bottom intervals and the VOC sample selected for laboratory analysis will be determined after all the soil intervals have been evaluated.

b) The second last sentence in the second full paragraph refers to TEL analysis. Should this be deleted?

b) Please change the reference in the third full paragraph to 6°C which is the value used throughout the rest of the SAP.