

N62661.AR.002468
NS NEWPORT
5090.3a

RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT COMMENTS TO
DATA GAPS ASSESSMENT (DGA) REPORT SITES 12 AND 13 TANK FARMS 4 AND 5 WITH
TRANSMITTAL NS NEWPORT RI

03/15/2011

RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT



RHODE ISLAND

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

235 Promenade Street, Providence, RI 02908-5767

TDD 401-222-4462

15 March 2011

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

Re: Data Gaps Assessment (DGA) Report
Sites 12 & 13, Tank Farms 4 & 5, NETC

Dear Mr. Pagtalunan,

The Office of Waste Management at the Rhode Island Department of Environmental Management has conducted a review of the *Data Gaps Assessment (DGA) Report*, dated January 2011 for Tank Farms 4 & 5 (Sites 12 & 13), Naval Station Newport, located in Newport, RI. As a result of this review, this Office has generated the attached comments on the *Data Gaps Assessment (DGA) Report*.

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
Deb Moore, NSN
Kymberlee Keckler, EPA Region I
✓ Stephen Parker, Tetra Tech

**Comments on
Data Gaps Assessment (DGA) Report
Sites 12 & 13, Tank Farms 4 &5, NETC**

1. Page 1-1, Section 1.1 Purpose; Last Sentence.

“...the purpose of this DGA report is to provide up-to-date, site-representative data to supplement the usable historical data that has been collected, and to use these data together to aid in determining risks to potential human and ecological receptors...”

The DGA Report does not include any “usable historical data”. The human health and ecological risk assessments were based on the samples taken in 2010 (March-April) for the DGA Report. Please include any historical data from samples taken within the boundaries of Decision Units 4-1 and 5-1. If the Navy proposes not to include certain data points, please include a table with the results for the data points and an explanation why these particular data points were not used to evaluate risks. Please submit this information in the response to comments.

2. Page 1-3, Section 1.3.2 Tank Farm 4 Decision Unit 1; 3rd Paragraph.

This section deals with the removal actions that were conducted at Tank Farm 4. The report should note that the removal action at the western ruin was terminated due to lack of funds and that additional investigations were conducted to determine the nature and extent of contamination in the impacted area. The results of the investigations and any confirmatory results should be included in the report.

3. Page 1-4, Section 1.3.3 Tank Farm 5 Decision Unit 5-1.

“DU 5-1 includes a former OWS area, and associated discharge pipe and discharge area.”

Figure 1-3, as well as all other figures presented for Tank Farm 5, show the former oil/water separator and the oil/water separator discharge pipe. However, there is a significant distance between the OWS and the beginning of the pipe (as depicted the OWS is not connected to the discharge pipe). This should be shown as connected on all figures. Please modify accordingly.

4. Page 2-2, Section 2.1 Soil Boring Investigation; 2nd bullet, last sentence.

Field modification records are in Appendix C not B. Please change the text accordingly.

5. Page 4-1, Section 4.0 Nature and Extent of Contamination; 1st paragraph.

“The detections are compared to regulatory criteria identified in worksheet (WS) 11 of the Sampling and Analysis Plan (TtNUS, 2010), updated to current regulatory criteria.

Screening criteria used in the data evaluations of soil, sediment, and aqueous samples are presented in Table 4-1."

The regulatory criteria listed in Table 4-1 includes only EPA RSLs or MCLs. Worksheet #11 in the Sampling and Analysis Plan (SAP), Section 11.2.4, states that the regulatory criteria includes EPA RSLs, RIDEM criteria and appropriate ecological criteria. This criterion is listed in Appendix K of the SAP, where the most stringent values are listed as the Project Action Limits (PALs), and summarized in Worksheets 15a-15d in the SAP. The analytical results presented in Tables 4-2, 4-3, 4-6, 4-7, 4-9, 4-10, 4-11, 4-14, 4-15, and 4-17 should be compared to the PALs as stated in the SAP, not just the EPA RSLs and MCLs. Please revise these tables and the figures in Section 4.0 to include the more stringent of either EPA or RIDEM's criteria for the PALs.

6. **Page 4-4, Section 4.1.1 Nature and Extent of Contamination in Soil (DU 4-1); 2nd paragraph, last sentence.**

"Metals and PAHs were selected for presentation on these figures if they exceeded residential RSLs in more than 3 samples in a group."

Any exceedances should be presented on the figures for this section. Please revise the figures for Section 4.0 to include all exceedances for metals and PAHs.

7. **Page 6-3, Section 6.1.1 Data Usability; Whole Section.**

"Much of the data from previous investigations are not considered usable for risk assessment because the data are: 1) for samples collected approximately 20 years ago, and/or 2) for samples that were collected to represent soils that have been disturbed or no longer exist because of the various excavation activities that have been conducted to close out the tank farms. Therefore, the data are not reflective of current conditions and were not used in this risk assessment."

Investigations and removal actions were conducted from late 2004 to mid-2006; as such, the data should not be classified as being collected 20 years ago. In regards to the removal actions, confirmatory samples should be employed as this would represent what was left in place. Investigation samples would also represent what is currently at the site. Please modify the report to include this data. In regards to data collected prior to 2000, please refer to comment #1.

8. **Page 6-39, Section 6.4.2 Interpretation of Risk Assessment Results; Paragraph 2.**

The report notes that the HHRA in terms of evaluation and the need for remediation will be compared to the USEPA target risk range of 1×10^{-4} to 1×10^{-6} . Please add the following text to this section of the report: *"The RIDEM acceptable risk range, under State Regulations, is 1×10^{-6} for individual contaminants and 1×10^{-5} for cumulative exposure."*

9. Page 6-39, Section 6.4.3 Results of the Risk Characterization; Last Paragraph, 1st Sentence.

".....and hypothetical future child and adult resident...."

Please modify the above sentence as follows: *"...and hypothetical future child and adult resident (note under State regulations the recreational exposure scenario is equivalent to the residential exposure scenario) ..."*

10. Page 6-53, Section 6.6 Soil Risks; Table.

This section contains a table delineating which exposure scenarios exceed the USEPA Risk Range. Please add to this table the RIDEM's risk range when more stringent than EPA's.

11. Page 7-22, Section 7.4.1 Soil Invertebrates; Whole Section.

The report notes that a number of SVOCs and pesticides which exceeded screening values were not retained as they did not exceed Dutch intervention values. The Dutch intervention values are not PRGs for the site. The report also notes that certain SVOC exceedances were limited to one area and as such the COC would not be carried forth in the process. Exceedances in one location are an indication of an impacted area. Please retain all COCs that have SVOC exceedances of the screening values and that are located in one area for the BERA.

12. Page 7-28, Section 7.4.2 Terrestrial Plants; Whole Section:

The endpoint for terrestrial plants is limited to surface soils. Plant roots are not limited to the surface soils zone; therefore, this comparison should be made to surface and subsurface soils. Please modify the report to reflect this requirement.

13. Page 7-28, Section 7.4.2 Terrestrial Plants; Whole Section.

The report notes that screening levels are not available for 16 SVOCs. The report then goes on to cite two surrogate values that could be used, and states that the observed concentration did not exceed the NOEC of 4,400 ppm. The report does not note whether the observed concentrations exceed the lower surrogate value from Mitchell. Please clarify this in the report, and in accordance with the nature of a screening ERA, please include all SVOCs which exceed the Mitchell screening value. Finally, in regards to the other SVOCs (other than the cited 16), it is not clear whether there are screening values for these contaminants. Please clarify and if screening values are present, please include them in a table and discuss the results in this section of the report.

14. Page 7-28, Section 7.4.2 Terrestrial Plants; Whole Section.

The report acknowledges that the concentrations of a number of inorganics exceed the benchmarks; however, these COCs are proposed to be eliminated due to the belief that the

benchmark is too conservative or the concentrations are not significantly above the benchmark, the site is heavily vegetated, or the pH of the soil will limit bioavailability (pH is 6.1).

Typically, contaminants which exceed a screening benchmark are retained for the BERA (unless it can be shown that the value used in a screening benchmark is in error). Please modify the report to include contaminants which exceed the benchmarks.

In terms of the significance of the exceedance, this is addressed through hazard quotients in which the sum of the exceedances is used to determine overall risk. This is carried out in the BERA and therefore the report must be modified to include contaminants which exceed the screening values.

The lack of stressed vegetation is not a criterion by which contaminants of concern may be eliminated. Please remove these statements from this and other sections of the report.

Finally, the limited pH data collected at the site indicates that the site is only slightly acidic, which may or may not have a significant impact on bioavailability. The magnitude of this impact is normally addressed under a BERA. Please do not use this criteria to eliminate COCs and eliminate the statement concerning pH from this and other sections of the report (the report may note that the impact of pH will be evaluated in the BERA).

15. Page 7-33, Section 7.4.3 Sediment Invertebrates; Whole Section.

A number of COCs that were found above TECs were eliminated due to the fact that they did not exceed PECs, or the exceedances of the PECs were not significant. PECs are not the cleanup objective for the site. Therefore, all contaminants which exceed TECs, but were eliminated for the cited rationale, must be retained in the BERA. In regards to SVOCs, it is not appropriate to ignore the individual analytes and treat them as total SVOCs. Please modify the report accordingly to include individual SVOCs.

16. Page 8-1, Section 8.1 Objectives.

As discussed in Comment #1, Section 1.1 of this report states:

“...the purpose of this DGA report is to provide up-to-date, site-representative data to supplement the usable historical data that has been collected, and to use these data together to aid in determining risks to potential human and ecological receptors...”

However, this section states that the purpose of the report was to collect “up-to-date” data and use this data for the human health and ecological risk assessments. The purpose of this report should have been to provide additional data to fill in the gaps of the existing usable data collected previously, such as the data collected from late 2004 to mid-2006 during a series of investigations and removal actions, which was documented in a closeout report (2007) and the Technical Memorandum for Data Summary and Plan for Risk Assessment, Tank Farms 4 and 5 (TtNUS, 2008). This data is not more than 10 years old.

Please include any “usable” historical data in the DGA report and use this data together with the new data from 2010 to evaluate risks from the designated units, or explain why this historical data should not be used in the risk assessments.

17. Page 8-3, Section 8.5 Nature and Extent of Contamination; Whole Section.

As stated previously in Comment #5, the concentrations of contaminants should have been compared to the PALs as determined in the approved Sampling and Analysis Plan (TtNUS, 2010). The PALs are the more stringent of the EPA RSLs/MCLs, RIDEM criteria or appropriate ecological criteria. This report uses only EPA RSLs and MCLs. Please revise the report (including all tables and figures) to include RIDEM’s criteria when more stringent than EPA’s, as approved in the Sampling and Analysis Plan.

18. Page 8-3, Section 8.5.1 Nature and Extent of Contamination for DU 4-1; 1st paragraph, 2nd sentence.

“The distribution of PAHs and metals shows no real pattern that would point to an uncontrolled source area.”

Please remove the above statement from the report as elevated levels were observed in locations of potential sources.

19. Page 8-5, Section 8.7 Human Health Risk Assessment; Whole Section.

As mentioned in Comment #8, this report uses the USEPA target risk range of 1×10^{-4} to 1×10^{-6} . The RIDEM acceptable risk range is 1×10^{-6} for individual contaminants and 1×10^{-5} for cumulative exposure. Please add RIDEM’s risk ranges to the document.

20. Page 8-7, Section 8.8 Ecological Risk Assessment; Whole Section.

It appears to RIDEM that a BERA is necessary based on the data presented in this report. As discussed in Comment #'s 11-15, a number of contaminants were eliminated from the screening process which should have been retained for further evaluation. Please modify the report as stated in the previous comments.

21. Table 2-1, Soil Sample Analysis Summary; Page 3 of 5.

The Sample ID numbers for TF4-SB935 are mislabeled as SB934. Please correct.

22. Table 2-1, Soil Sample Analysis Summary; Page 3 of 5.

The Sample ID number for TF4-SB939 for the 8-10 ft interval is mislabeled as SB939-0204. Please correct.

23. Table 2-1, Soil Sample Analysis Summary; Page 4 of 5.

The Sample ID number for TF5-SB966 taken at the interval of 6-8 ft is labeled as TF5-SB966-0810. Please correct.

24. Figure 2-1, DU 4-1.

Please modify Figure 2-1 to depict the discharge pipes being connected to Ruin 1 and show the drainage swales, as well as the storm water system including the manholes.

25. Figure 2-2, DU 5-1.

Please modify Figure 2-2 to depict the discharge pipes being connected to the oil/water separator, and show both discharge pipes from the oil/water separator.

26. Appendix A, Figure 7, Category 2 Areas of Concern and Assignment of Decision Units; TF 4 Tank 41.

The discharge line from Tank 41 requires investigation and closure. As determined in the Supplemental Site Investigation, the discharge line was leaking and may possibly still be a source of contamination. Please modify Figure 7 to include this information.

27. Appendix A, Figure 8, Category 3 Areas and Assignment of Decision Units.

Elevated lead concentrations were found along the fence lines at both Tank Farms 4 and 5. Please add the fence lines as an Area of Concern in Figure 8.

