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LETTER REGARDING TETRA TECH RESPONSES TO PARTNERING TEAM COMMENTS  
ON DRAFT SITE ASSESSMENT REPORT FOR PETROLEUM CONTAMINATED AREA 25  
UNDERGROUND STORAGE TANK SITE 119 FUEL TRANSFER SUMP NAS JACKSONVILLE  
FL  
9/12/2012  
TETRA TECH



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Project Number 112G00132

Ms. Adrienne Wilson  
Remedial Project Manager  
Code OPDE3/AW  
Department of the Navy  
Naval Facilities Southeast  
Ajax Street, Building 135N  
NAS Jacksonville, Florida 32212-0030

Reference: CLEAN IV Contract Number N62467-04-D-0055  
Contract Task Order Number 0003

Subject: Response to Comments for the Draft Site Assessment Report for Petroleum Contaminated Area 25, UST Site 119 Fuel Transfer Sump  
Naval Air Station Jacksonville  
Jacksonville, Florida

Dear Ms. Wilson:

Tetra Tech is pleased to present this letter responding to the comments on the Site Assessment Report for Petroleum Contaminated Area 25, UST Site 119 Fuel Transfer Sump, located within Naval Air Station (NAS) Jacksonville in Jacksonville, Florida, received from NAS Jacksonville Partnering Team members. The questions and/or comments that have been received by Tetra Tech from the NAS Jacksonville Partnering Team members by letter are addressed below.

### **Naval Facilities Engineering Command Southeast**

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#### **Adrienne Wilson**

1. Why are we comparing marine surface water (MSW) clean-up values to the ground water results?

**Response:** The results of JAX25-TF-MW11 were compared to MSW criteria because of its close proximity to the sea wall.

2. This site will go to a BOA for further sampling to see if the VC in well JAX25-TF-MW11 and the sporadically petroleum constituents disappear.

**Response:** Comment Noted.

## Naval Air Station Jacksonville, Facilities and Environmental Department

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### Tim Curtin

1. Page viii: Add CSF Cancer Slope Factor to Acronym list.

**Response:** CSF has been added to acronym list.

2. Page 1-5, lines 11 & 16: How can NAS Jacksonville be located within the Pamlico terrace at 10 to 25 feet above sea level but the PCA 25 site be at 5 feet above sea level? PCA 25 must be sitting in quite a deep hole!

**Response:** The reference to elevation was removed to avoid confusion. The Pamlico terrace was formed in a depositional environment when sea level was 25 feet above its current level.

3. Page 1-8, line 16: Add "In March 2010 during the demolition of Bldg 24, many if not all of the product lines were removed." after "in place".

**Response:** Sentence added in Section 1.8.3.

4. Page 1-8, lines 23 & 28: On line 23 "Excessively contaminated soil and groundwater was encountered throughout the excavation during the removal of Tank 120" and on line 28 we say "Excessively contaminated groundwater was not detected during the excavation of Tank 120". How can this be?

**Response:** The sentence was revised to say that only contaminated soil was encountered since confirmatory samples did not show contaminated groundwater.

5. Page 4-10, line 29: Delete "in" after "accordance".

**Response:** Text has been corrected.

6. Page 4-18, lines 11, 16 & 27: Change "2-methylnapthalne" to "2-methylnapthalene". Do again on page 4-19, line 16.

**Response:** Text has been corrected.

7. Page 5-1, line 33: Change "GCTLs occurs" to "GCTLs occur".

**Response:** Text has been corrected.

8. Page 5-2, line 23: Add "to" after "exposure".

**Response:** Text has been corrected.

9. Page 5-2, line 24: Change "GCTLs occurs" to "GCTLs occur".

**Response:** Text has been corrected.

10. Page 5-2 line 29: Is 19.4 ft/year pretty fast for groundwater flow here?

**Response:** This value is within the typical flow velocity for groundwater.

11. Page 6-1, line 26: Change "sites" to "site's".

**Response:** Text has been corrected.

## Florida Department of Environmental Protection

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### David Grabka

1. On page ES-2, second paragraph, unlike the previous paragraph, it does not say at what depths the soil cleanup target level (SCTL) exceedances were detected. Also, the industrial SCTL for benzo(a)pyrene is 700 ug/kg, not 800 ug/kg. Lastly, please check line 18. Acenaphthene has a leachability to GW SCTL of 2,100 ug/kg, but acenaphthylene has a leachability to GW SCTL of 27,000 ug/kg. They are both PAHs and are spelled alike, but they have different SCTLs.

**Response:** Soil depths have been added to the second paragraph on page ES-2. In addition, it was determined that some locations were omitted in this paragraph in the executive summary. These locations were added to the referenced paragraph. The industrial SCTL for benzo(a)pyrene has been corrected in the text. Acenaphthene was the constituent that exceeded leachability SCTL. The misspelling has been corrected in the text.

2. On page 1-8, last paragraph, the term excessively contaminated groundwater is used. I am not familiar with the term. Does the term "excessively" mean groundwater contaminated above Natural Attenuation Default Criteria or above groundwater cleanup target levels?

**Response:** Concur. The term "excessively" has been removed from the language.

3. On page 4-12, top paragraph, last sentence, it says that most Florida GCTLs are not risk based values. I do not agree. I would agree that some GCTLs are not risk based, but most GCTLs are risk based.

**Response:** Concur. The text has been modified to say, "some Florida groundwater CTLs are not risk-based values".

4. Section 4 is devoted to risk assessment. Based on what I've read in the section and based on my limited understanding of the details involved in a risk assessment, I am hesitant to comment. Unless alternative cleanup numbers are being proposed in the risk assessment, the Department prefers that the Navy default to our published CTLs. I did not find where alternative CTLs are proposed in Section 4. I did find a list of chemicals of potential concern (COPCs) that are identified through the risk assessment. I believe that the same COPCs would have been identified by simply screening against our published CTLs.

**Response:** Comment noted.

5. On page 4-22, Section 4.3.2.2, it describes the calculation of exposure point concentrations using FL UCL (95 % UCL). Please provide the raw data that went into FL UCL and the FL UCL calculations. Also, please note that our petroleum cleanup rule requires apportionment when there is risk of exposure of multiple carcinogens in soil. Were FL UCL calculations correctly conducted on each soil strata? Please verify that Section 62-770.680(1)(c)1., Florida Administrative Code, was followed completely.

**Response:** On page 4-22, the uncertainty associated with the use of the 95% UCL is discussed. UCLs were calculated using the Florida UCL calculator (FL-UCL). The output from FL-UCL is provided and will be included in an appendix.

The comment also notes that the petroleum cleanup rule requires apportionment when there is a risk of exposure of multiple carcinogens in soil. To ensure that all appropriate contaminants (i.e., COPCs) were evaluated in the risk assessment, maximum detected concentrations of each contaminant was compared to one tenth of the residential cleanup target level (CTL) value. In the case of carcinogens, where the CTL corresponds to a 10E-06 risk level, the screening level for a COPC corresponds to a 10E-07 risk level. Risks were calculated for these COPCs. If the risk exceeds a risk level of 10E-06, then cleanup levels will be apportioned for the COPCs to ensure attainment of the FDEP target risk level.

FL-UCL calculations were only conducted for one stratum of soil. COPCs were identified from a total soil data set which consisted of the combined surface and subsurface soil data sets. Surface and subsurface soil data sets were combined because only six surface soil samples (out of 110 samples) were collected and the majority of the PCA 25 surface area is paved.

Finally, Section 62-777.680(c)(1), F.A.C. was followed. For residential exposure to soil, the cumulative soil risk exceeds 10E-06; therefore, NFA is not appropriate. For industrial exposure to soil, the cumulative risk is approximately equal to 10E-06. Therefore, all COPCs would have EPCs that result in risks that would be less than apportioned CTLs and an NFA with a land use controls would be appropriate. The raw data for the FL UCL calculations has been added as Appendix G.

6. In Figures 3-2, 3-3, and 3-4, the water level elevations of well JAX25-MW01 appear anomalous. Please check that the top of casing elevation is correct.

**Response:** Wells at the site were resurveyed in 2011. While elevations were slightly different in all wells due to a different reference point during survey, JAX25-MW01 water levels were similarly lower with the updated elevations. This is likely due to its close proximity to a storm sewer going through the area, which may be draining groundwater.

7. On page 3-14, Section 3.3.1, second paragraph, first sentence, please remove SB86 and add SB69 to the list of soil samples that produced concentrations of petroleum constituents greater than FDEP SCTLs.

**Response:** The text has been modified as requested.

8. Figures depicting the locations of soil samples collected for OVA analysis or laboratory analysis should clearly show those areas that are covered with asphalt or concrete and those areas that are bare soil or grass. These figures would visually support the conclusion in Section 6.1 that contaminated soil above industrial SCTLs is either located below two feet of clean soil or is located below a paved asphalt surface. This would also support the recommendation made in that section to manage the remaining contaminated soils with engineering and administrative controls under Risk Management Option II.

**Response:** Figures 3-5 and 3-6 have been updated to have an aerial photo as the background for the site to clearly show paved versus unpaved areas.

9. Appendix H to the Draft SAR is the Monitored Natural Attenuation Work Plan for PCA 25, UST Site 119 Fuel Transfer Sump. The Work Plan is adequate for its intent except that the Department requires that one field duplicate groundwater sample be collected during each sampling event. Please also take into account the Department's recent comments on the UFP-SAP that covers the work proposed in the MNA Work Plan.

**Response:** Comment noted.



**TETRA TECH**

If you have any questions regarding the enclosed material, or if I can be of assistance in any way, please contact me at (904) 730-4669, extension 213, or by e-mail at [Mark.Peterson@tetrattech.com](mailto:Mark.Peterson@tetrattech.com).

Sincerely,

Mark A. Peterson  
Task Order Manager

Enclosure (hard copy/CD)

- c: Tim Curtin, NAS Jacksonville (hard copy/CD)
- David Grabka, FDEP (hard copy/CD)
- Debra Humbert, Tetra Tech (cover letter only)
- Chris Pike, Tetra Tech (unbound/CD)
- CTO 0003 Project File