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RESPONSE TO FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION COMMENTS ON THE DRAFT PROPOSED PLAN FOR OPERABLE UNIT 21 SITE 46 FORMER BUILDING 72 NAS PENSACOLA FL

07/13/2011

TETRA TECH INC

NAVAL AIR STATION PENSACOLA
PENSACOLA, FLORIDA
DRAFT PROPOSED PLAN
OPERABLE UNIT 21, SITE 46

RESPONSE TO FDEP COMMENTS
Dated June 3, 2011

Comment 1: On page 1, left column, The Cleanup Proposal, second paragraph, please replace the word "criteria" with "risks".

Response: Comment acknowledged, the requested change will be made.

Comment 2: On page 5, left column, inorganic and organic chemicals detected in surface and subsurface soil above regulatory criteria are listed. The regulatory criteria that are exceeded are mentioned as either a standard, a criterion, or a criteria. Please pick one and use it consistently for each chemical. Also, please identify for each chemical whether it is a state or federal standard that is being exceeded.

Response: Comment acknowledged, the requested change will be made.

Comment 3: On page 5, right column, bottom bullet, please note that the federal MCL for vinyl chloride is 2 µg/L (2 ppb).

Response: Comment acknowledged, the requested change will be made.

Comment 4: On page 6, right column, Step 1, in the discussion of surface soil, COPCs are identified as including aluminum, iron and Arochlor-1260, all of which are not mentioned as having been detected on page 5. Also, several contaminants listed on page 5 were not listed on page 6. I have the same comment concerning the COPCs listed for subsurface soil and groundwater.

Response: The COPCs listed on page 5 are inorganic and organic chemicals detected in surface and subsurface soil and groundwater samples collected during the Remedial Investigation (RI) (2008) at Site 46 were compared to Florida regulatory criteria for soil and Florida and federal regulatory criteria for groundwater. COPCs listed on page 6 are chemicals found at the site at concentrations greater than Federal and/or Florida risk-based screening levels (and for metals, greater than facility background levels).

Comment 5: On page 8, right column, middle of the page, it says that bis(2-ethylhexyl)-phthalate was not retained as a COC after resampling indicated that it was not present. In the next two sentences, it says that 2-methylnaphthalene, bromodichloromethane and chlorodibromomethane were not retained because they did not exceed regulatory criteria. Was this during the resampling event that is mentioned in the discussion on bis(2-ethylhexyl)-phthalate? When was this resampling done? I could not find a mention of it in the "History of Site Investigations" located on the right side of page 2.

Response: The groundwater sample collected in December 2005 from monitoring well PEN-38GS05 contained bis(2-ethylhexyl)phthalate at 64 micrograms per liter (µg/L). However, the duplicate collected in December 2005 from monitoring well PEN-38GS05 did not contain a detectable concentration (7 U µg/L). Because bis(2-ethylhexyl)phthalate exceeded its Florida GCTL, another groundwater sample was collected from monitoring well PEN-38GS05 in May 2006. This sample did not contain bis(2-ethylhexyl)phthalate (5.1 U µg/L).

The groundwater sample collected in December 2005 from monitoring well PEN-46-01 contained bromodicloromethane at an estimated concentration "J" qualifier of 1 µg/L and exceeded the Florida Groundwater Cleanup Target Level (GCTL) per Chapter 62-777, Florida Administrative Code (F.A.C.) of 0.6 µg/L. The groundwater sample collected in December 2005 from monitoring well PEN-46-14 contained chlorodibromomethane at an estimated concentration "J" qualifier of 0.6 J µg/L and exceeded the Florida GCTL per Chapter 62-777, F.A.C. of 0.4 µg/L. However, the detected concentrations of bromodicloromethane and chlorodibromomethane did not exceed the total trihalomethane Maximum Contaminant Level (MCL) of 80 µg/L per Chapter 62-550, F.A.C.

2-Methylnaphthalene was detected in groundwater samples collected in December 2005 at estimated concentrations "J" qualifier that ranged from 0.1 to 11 µg/L, and did not exceed its Florida GCTL of 28 µg/L per Chapter 62-777, F.A.C. 2-Methylnaphthalene was listed as a chemical of potential concern (COPC) because it exceeded its USEPA Region 9 Tap Water Preliminary Remediation goal (PRG) (October 2004).

Comment 6: Please note that for the ecological pathway, the Department considers the groundwater to surface water (Pensacola Bay) pathway to be important. While contaminants have not been shown so far to have reached the bay by this pathway, groundwater monitoring will be required to show that this pathway for contaminant migration remains incomplete.

Response: Comment acknowledged, groundwater monitoring will be conducted and the analytical results compared to Marine Surface Water criteria per Chapter 62-777, F.A.C.

Comment 7: On page 9, left column, last paragraph on bottom of page, please remove the word "unacceptable" that is used twice in the paragraph.

Response: Comment acknowledged, the requested change will be made.

Comment 8: On page 9, right column, bottom of the page, Subsurface Soil, the lead criteria of 15 ppb seems too low. The residential SCTL for lead is 400 ppm. It would appear the GCTL for lead is listed there.

Response: The lead remaining in subsurface soil at isolated areas of the site exceeds its Florida Leachability to Groundwater criteria. Therefore, the concentration stated on page 9 is based on the analytical results for the Synthetic Precipitation Leaching Procedure for lead, which would be 15 µg/L based on the Florida and Federal MCL.

Comment 9: On page 10, Groundwater, please note that the Florida MCL for trichloroethene is 3 ppb (µg/L). Also, the federal MCL for vinyl chloride is 2 ppb (µg/L).

Response: Comment acknowledged, the requested change will be made.

Comment 10: For alternatives G-2 and G-3, natural attenuation processes are identified as being able to reduce inorganic contaminants. Please identify the natural processes by which this would occur.

Response: In December, 1999, EnSafe, Inc. prepared a Final Technical Memorandum for Evaluation for MNA for Site 38, Buildings 71 and 604 at Naval Air Station (NAS), Pensacola, Florida. The Technical Memorandum described the natural attenuation study that was

performed as part of a Feasibility Study (FS) for Site 38 (Buildings 71 and 604). The MNA study found that measurements of dissolved oxygen, oxidation reduction potential, hydrogen, iron and sulfate and sulfide supported reductive dechlorination of chlorinated solvents and sorption of lead to sediment.

Comment 11: On page 12, left column, in the section **Evaluation of Alternatives**, first paragraph, the paragraph stops and then reappears at the top of the page in the right column.

Response: Comment acknowledged, the requested format change will be made.

Comment 12: On page 12, compliance with ARARs for the soil cleanup alternatives is discussed, but the term ARARs is not explained until the end of the section on page 13.

Response: Comment acknowledged, the requested change to the acronym reference will be made.

Comment 13: On page 12, right paragraph, near bottom of the page, it says that federal and state location-specific ARARs (i.e. requirements because a site is on or near a wetland or surface water) for soil do not apply to Alternatives S-1 and S-2. While I would concur that there is not a soils remediation location-specific ARAR, I would identify salt-water surface water cleanup target levels (Chapter 62-777, Florida Administrative Code) as location specific-ARARs for groundwater located adjacent to and discharging into Pensacola Bay.

Response: Comment acknowledged, the Marine Surface Water criteria per Chapter 62-777, F.A.C. will be included as an ARAR.

Comment 14: On page 14, left column, Compliance with ARARs, first sentence, please swap GW-2 and GW-3. On same page, left column, Long-Term Effectiveness and Permanence, second paragraph, please swap GW-2 and GW-3.

Response: Comment acknowledged, the requested change will be made.

Comment 15: On page 14, Reduction of Toxicity, Mobility, or Volume Through Treatment, first sentence, please change it to read that Alternative GW-2 would not reduce the toxicity, mobility or volume of the COCs through treatment because no treatment would occur.

Response: Comment acknowledged, the requested change will be made.

Comment 16: On page 14, Reduction of Toxicity, Mobility, or Volume Through Treatment, second sentence, please explain how alternatives GW-2 and GW-3 would reduce the mobility of the inorganic contaminants over time be adsorption to sediment beyond that which would happen if Alternative GW-1, No Action, were selected.

Response: Under alternatives GW-2 and GW-3 the mobility would not necessarily be reduced over the no action alternative. However under GW-2 and GW-3 monitoring would be conducted to determine if there would be a reduction in the mobility of the inorganic contaminants over time. The text will be modified for a better understanding.