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LETTER AND THE U S NAVY RESPONSE TO THE U S EPA REGION III COMMENTS ON
THE DRAFT SAMPLING AND ANALYSIS PLAN SITE 25 REMEDIAL INVESTIGATION NWS
YORKTOWN VA
04/11/2014
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April 11, 2014

Mr. Moshood Oduwole
Federal Facility Remediation (3HS11)
USEPA Region 3
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

Subject: Response to Comments dated April 8, 2014 on the Draft Sampling and Analysis Plan for the Remedial Investigation at Site 25, NWS Yorktown, Yorktown, Virginia

Dear Mr. Oduwole,

This letter is in response to comments dated April 8, 2014 for the subject document. Comments are presented below followed by responses in italics.

1) Based on Figure 5 (Proposed Samples Locations), no sampling is proposed along the 10- inch rectangular concrete discharge line. However, Worksheet #10 (Conceptual Site Model) states that, “[W]ash/rinse water subsequently was discharged from the catch basin into a drainage ditch leading to Felgates Creek via a 10-inch rectangular concrete discharge line (Brumfield, 1977). The line to the creek was plugged in the early 1960s...” While SS/SB07 is proposed to assess leakage from the catch basin, revise the SAP to clarify why no sampling is proposed along the 10-inch rectangular concrete discharge line given that wash/rinse water was discharged from the catch basin to the line.

Response 1: SS/SB07 is proposed where the catch basin is located, at the start of the discharge piping, and SS/SB34 is located roughly where the discharge line meets the drainage swale. The location of SS/SB34 and GW07/07A will be moved 5 ft to the north to better capture impacts from both the drainage line and the discharge to the swale. Figure 5 has been modified accordingly (attached).

2) Based on Figure 5 (Proposed Samples Locations), no sampling is proposed outside several Buildings 373, 386 and the solvent storage shed entrance(s)/exit(s); however, Worksheet #10 (Conceptual Site Model) indicates that chemicals were reportedly dumped outside of Building 373 entrance(s)/exit(s). Similarly, the seventh bullet of the Data Gaps subsection of Worksheet #10 states that, “Areas at doorways around Buildings 373, 386, and the solvent storage shed were not previously sampled. Additional sampling for these areas for contaminants most likely to be site-related will be conducted to ensure potential source areas are properly defined.” Revise the SAP to clarify why no sampling is proposed outside several Buildings 373, 386 and the solvent storage shed entrance(s)/exit(s).

Response 2: SS/SB26 is located on the downslope side of the exit to the solvent storage shed. Because this building is only approximately 10 x 15 ft and has only one entry/exit point, this one sample location should be sufficient to evaluate impacts from this shed. SS/SB31 is to be located on the upslope side of Building 386, while GW06 and SS/SB33 are proposed on the downslope side of the building. The exact location of SS/SB31 will be determined in the field in order to capture any potential area most likely to be contaminated, based on the building layout. It is important to note that no known release has occurred at either of these buildings, and the proposed samples are intended to allow for thorough site characterization. With respect to the sampling approach for the exterior of Building 373, sample locations were selected based on interviews with the installation employees regarding where

chemicals were historically disposed. The building has a perimeter of approximately 336 ft. There are 13 samples proposed around the building, equating to one sample per every ~25 ft of building length/width. There are additional samples beneath the floor of the building to evaluate impacts from rocket manufacture within the building. While the Navy acknowledges that additional samples may be necessary if risks are identified and a removal action is warranted, this sample frequency seems sufficient to support an RI sampling field effort. No changes to the SAP were made to address this comment.

3) Based on the confirmation sampling results presented in Figure 4 (Removal Action Soil Sample Results), several exceedances of Regional Screening Levels (RSLs) and ecological screening values (ESVs) remain following the underground storage tank (UST) and associated piping removal action. However, only two soil borings are proposed (i.e., SB01 and SB03) in the removal action footprint. Revise the SAP to clarify why only two soil borings are proposed in the removal action footprint given the exceedances of RSLs and ESVs during confirmation sampling following the UST and associated piping removal action.

Response 3: Many of the exceedances of ecological screening values identified during confirmation sampling were in floor samples, which were 3 or more feet bgs, where there is no exposure pathway for ecological receptors. Two wall samples exceeded the ESV for manganese in the vicinity of the tank, but it is not clear from the Construction Completion Report (OHM, 1997) at what depth these wall samples were collected. Based on the number of samples collected for the removal action, and the minimal impacts identified in these samples, it seems that three samples along the length of the former excavation (SB01, SB03, and SS/SB07) should be sufficient to support an updated risk evaluation. If risks are identified, additional sampling may be necessary to support any additional removal action. No changes to the SAP are proposed.

4) Table 1 (Problem Definition/Objective, Environmental Questions, and Project Quality Objectives) of Worksheet #11 (Project Quality Objectives/Systematic Planning Process Statements) indicates that groundwater samples will be analyzed for monitored natural attenuation parameters including alkalinity, chloride, nitrate, nitrite, sulfate, sulfide, methane, ethane, ethene, pH, oxidation-reduction potential (ORP), turbidity, specific conductance, dissolved oxygen, temperature, and ferrous iron. However, the Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Ground Water, EPA/600/R-98/128, dated September 1998 (Natural Attenuation Protocol) awards points for these parameters in addition to total organic carbon, carbon dioxide, dissolved hydrogen, volatile fatty acids, chlorinated volatile organic compounds (VOCs), benzene, toluene, ethylene, and xylene (BTEX), and iron. Revise the SAP to clarify why these parameters will not be included in the analysis to determine if natural attenuation is occurring at Site 25.

Response 4: While the Navy acknowledges that the EPA Natural Attenuation Guidance recommends analysis of other constituents either not proposed in the sampling plan for Site 25 or not listed as natural attenuation indicator parameters (NAIPs), the EPA's SAP process encourages the evaluation of usability of data prior to collection. With respect to the constituents included in the comment, the following should be noted: Benzene, toluene, ethylene, and xylene (BTEX) as well as chlorinated VOCs are included in the list of VOCs typically analyzed as part of the full VOC analytical list and will be analyzed at Site 25, as stated in the SAP. These parameters are considered contaminants, and while breakdown processes may be observed through evaluation of contaminant trends, these parameters are not considered NAIPs, and as such, are not listed as NAIPs. Iron is an inorganic, and will therefore be included in the total and dissolved metals results. While evaluation of iron concentrations can be helpful in assessment of natural attenuation potential, this metal is typically listed under the "Metals" analytical list, rather than the NAIP list. Please also note that Worksheet 11 states that "ferrous iron" field test kits will be used to support the natural attenuation evaluation. Ferrous iron is useful in determining the redox state of the aquifer. Analysis of total organic carbon, carbon dioxide, dissolved hydrogen, and volatile fatty acids are most

useful for evaluation of natural attenuation at sites where a carbon donor source is added to drive reductive dechlorination, or at sites with significant amounts of naturally occurring carbon that can drive natural attenuation. Because VOC concentrations based on previously collected data are quite low at Site 25 (maximum concentrations of 1,1,1-TCA and 1,1-DCE were 110 µg/L and 20 µg/L respectively in 1997), and the organic carbon content of the aquifer based on soil logs is also likely to be quite low, the Navy does not believe that these parameters would be of sufficient use to the team at this time to justify the cost of analyzing for them. Therefore, no changes to the SAP were made to address this comment.

5) Several of the project indicator levels presented in Table 3 (Project Indicator Levels) of Worksheet #11 (Project Quality Objectives/Systematic Planning Process Statements) do not correspond with the analytical parameters presented in Table 2.3 (Analytical Parameters and Weighting for Preliminary Screening for Anaerobic Biodegradation Processes) of the Natural Attenuation Protocol. For example, Table 2.3 of the Natural Attenuation Protocol indicates that alkalinity results greater than two times background are optimal for reductive dechlorination; however, Table 3 of Worksheet #11 indicates that the project indicator level for alkalinity is 50 milligrams per liter (mg/L). Revise the SAP to clarify why the project indicator levels presented in Table 3 of Worksheet #11 do not correspond with the analytical parameters presented in Table 2.3 of the Natural Attenuation Protocol.

Response 5: While it is acknowledged that the EPA's natural attenuation guidance referenced does mention an optimal alkalinity of greater than two times background as supporting evidence of optimal reductive dechlorination, for this purpose, the PIL was selected as the minimum limit of quantification listed in the the EPA's MNA guidance, which is 50 mg/L to ensure the laboratory reports would meet the needs of the project team. The table was edited to reflect two times the background as the PIL and have a footnote to specify that the laboratory reporting limit requested is 50 mg/L. The nitrate, nitrite, and DO PILs were also edited to match the USEPA's MNA Guidance, as requested.

6. The SAP references criteria and acceptance limits in Version 4.2 of the DOD QSM, but a newer version is available (Version 5.0, dated July 2013). Clarify why the older version of the QSM is referenced, and revise the SAP if necessary to use the newer version

Response 6: DoD QSM version 4.2 is referenced because that is the version the laboratories will adhere to for this work. There is a grace period of the implementation of QSM v5.0. No changes to the SAP were made based on this comment.

7. Some of the proposed analytical methods are inconsistently presented in the SAP. For example, Worksheet #17 indicates the Lloyd Kahn method will be used for analyses of total organic carbon (TOC) in sediment, while the other worksheets in the SAP list Walkley Black for TOC sediment analyses (e.g., Worksheets #19, #23, and #30). In addition, Worksheet #17 indicates Method 310.0 will be used for analyses of alkalinity in water samples, Worksheet #30 indicates Method 130.2 will be used, and other worksheets indicate Method 310.2 will be used (e.g., Worksheets #19 and #23). Revise the SAP to consistently identify the methods that will be used for this investigation.

Response 7: The SAP has been corrected to resolve these discrepancies

8) The method and SOP QC acceptance limit for the pH duplicate analysis listed in Worksheet #28-27, Laboratory QC Samples, (page 171) is 25%, but Worksheet #15-24 includes a relative percent difference (RPD) acceptance

limit of 20%. Revise the SAP to resolve this discrepancy in the precision acceptance limits that will be used for pH analyses of sediment.

Response 8: Worksheet #28-27 has been updated to address the discrepancy.

9) Worksheet #18, Sampling Locations and Methods/SOP Requirements Table, Page 111: The first five surface soil samples (YS25-SB10-0H02-MMY to YS25-SB23-0H02-MMY) have the same sample identifications as the first five subsurface soil samples. Revise this worksheet to provide different identifications for these surface soil and subsurface soil samples.

Response 9: Sample IDs have been modified as suggested.

10) Worksheet #30, Analytical Services Table, Pages 179 to 180: The analyses of AVS/simultaneously-extracted metals (SEM) in sediment and cyanide in water are not included in this table. Revise Worksheet #30 to include the laboratories that will perform these analyses.

Response 10: Worksheet #30 has been updated as requested.

EPA TECHNICAL SUPPORT COMMENTS

1) Page 6, Executive Summary: The objectives of the Site 25 RI should be revised and the text of this summary, and elsewhere in the report, also need to be revised. Specifically the fifth bullet on this page needs to change to "Characterize the nature and extent of contamination of surface water, sediment, and sediment pore water." This is supported by the fact there are two drainage swales and one corrugated pipe leading to outfalls adjacent to Felgates Creek and all drain portions of Site 25.

Response 1: The suggested edit has been made as requested, and the objectives listed on Worksheet 11 have also been updated for consistency.

2) Worksheet #9-1 on page 35 (second bullet) states that the solids removed from Building 373 were open burned at another area at the Station. Please identify this other area and document that it is being investigated for contaminants under CERCLA.

Response 2: According to the 1996 SSP, solids were incinerated at Site 4, the Burning Pad Residue Landfill. This site has since been fully remediated and is closed under a No Further Action ROD (Navy, 2005).

3) Worksheet #9-1 on page 36 indicates that with the exception of slug testing, previous data would not be used to support this RI. The first bullet on page 37 indicates that previous data would be used to determine which analyses would be conducted. These two pieces of information appear inconsistent. It would appear the analyses to be conducted would be for those contaminants traditionally included in a CERCLA remedial investigation plus contaminants specific to the site and not based on a limited contaminant list from a previous investigation when these previous data will not be used in this RI.

Response 3: The references on page 36 specifically relate to data of questionable quality collected during the 1997 RI that was not finalized. Other data have been collected at Site 25, during the OU1 Groundwater RI in 2004 and during the 1996 SSP. The degree to which full suite samples are proposed was related to the existing data at the site and the known site contaminants based on that data, as well as an understanding of which areas have not previously been sampled. It is common to limit the analyte list for investigations based on historical activities at a site and analytical results of previous investigations. EPA's Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA (October 1988) states that, "existing data can be used to determine the additional work that needs to be conducted both in the field and within the community," and that, "a thorough search of existing data should help avoid duplication of previous efforts." The use of the existing data (from the SSP and OU1RI) is intended to support the development of the approach rather than directly being used to support the risk assessment, nature and extent assessment, and fate and transport assessment, which are more appropriately completed with more recent data. No changes to the SAP are proposed to address this comment.

4) Worksheet #9-1 on page 37 states that "...perchlorates are unlikely to remain in soil...." Please provide the data that supports this statement as it applies to the soils at this site. Other articles (<http://www.sciencedirect.com/science/article/pii/S0269749104001307>, <http://pubs.acs.org/doi/abs/10.1021/es0106321>) do not appear to support this statement. Another article (<https://dl.sciencesocieties.org/publications/jeq/abstracts/33/5/1638>) indicates that terrestrial (includes trees) and aquatic plants can accumulate perchlorate at concentrations up to 100 times higher than in water. This suggests that even though perchlorate may not be present in soil or at low levels in surface/ground water, perchlorate concentrations in vegetation may be higher.

Response 4: The first link provided returned an error message. The statement included in Worksheet 9 was based on the very high water solubility of perchlorate (up to 2,096 g/L at 25°C) and the general absence of perchlorate in soils at most environmental sites. EPA's Technical Fact Sheet on Perchlorate (May, 2012) states, "Highly soluble in water; migrates quickly from soil to ground water," in the "At a Glance" section, and makes no additional mention of perchlorate-impacted soils or remediation of perchlorate in soils. It is important to note, however, that the proposed sampling approach does not eliminate perchlorate sampling in soil completely. It merely limits sampling to a few key locations, and, as per the decision logic in Worksheet #11, allows for additional sampling if the initial sampling approach proposed fails to adequately delineate the nature and extent of contamination. With respect to the second link, the Navy could not find any EPA or other guidance document to support analysis of vegetation for any contaminant, including perchlorate. No changes to the SAP are proposed to address this comment.

5) Worksheet #9-1 on page 37 (third bullet) states that TOC will only be analyzed for in surface soils. Please explain why TOC will not be analyzed for in subsurface soils.

Response 5: TOC will be added as an analyte for all 6-24 inch subsurface soil samples.

6) Worksheet #9-1 on page 37 (fourth bullet) states that sediment pore water samples will not be analyzed for mercury and cyanide. Please explain why pore water is not being analyzed for the same constituents as "...all samples for all media..." (see first bullet on page 37).

Response 6: The list of analytes for sediment pore water was limited to the greatest extent practicable based on contaminants most likely to be identified based on previous data. These limitations are primarily due to the difficulty of collecting large volumes of water from pore water samplers. However, please note that Worksheet #11 states, "If the nature and extent of contamination in and/or fate and transport pathways to surface water and

sediment are not clearly defined or cannot be reasonably estimated, then additional sediment, surface water, or pore water samples may be proposed.”

7) Worksheet #10 on page 39 states that based on interviews with previous site workers, chemicals were reportedly dumped outside of Building 373 doorways. It is unclear from this statement if there were particular doorways where chemicals were dumped or all doorways have the potential to be contaminated from dumping. This issue should be clarified as according to Figure 5, sampling is only proposed outside of two of the eight doorways. Unless specific information can be provided to support only sampling outside two of the doorways, soil should be sampled outside of all eight doorways. Regarding the solvent storage shed, please explain how one sample is adequate.

Response 7: As per the response to general comment #2, sample locations were selected based on areas where base employees had reported that chemicals would likely have been disposed during historical operations. This has been clarified in the SAP.

8) Worksheet #10 on page 40 states that the 2004 Phase I RI for Groundwater at Sites 1, 3, 6, 7, 11, 24, and 25 recommended that perchlorates be analyzed for in groundwater. Please clarify if perchlorates are part of the chemical constituents that will be analyzed in all media.

Response 8: As per Worksheet #18, perchlorate will be analyzed in a subset of soil samples, groundwater, surface water, and sediment.

9) Worksheet #10 on page 42 provides a list of data gaps and concerns identified for this site. One data gap identified is the impact from discharging groundwater including the collection of surface water, sediment, and sediment pore water. If the groundwater table is deeper than the creek elevation, sediment pore water should be sufficient to assess this migration pathway. However, if the groundwater table is shallower than the creek elevation, the groundwater may discharge to Felgates Creek as a seep. If this is the case, a seep survey should be performed to determine if seeps are present along the shoreline. If seeps are present, they should be sampled. Seeps may only flow from late fall to early summer depending on rainfall; therefore, the seep survey and sampling should be performed during this timeframe.

Response 9: No seeps have been observed during multiple site visits conducted by the Navy RPM in 2013. Additionally, the depth to water across the site is over 20 ft in all monitoring well locations, which is consistent with the elevation change from the level area of the site to Felgates Creek, so it is not anticipated that seeps would be present at this site. However, the Navy would like to make arrangements for U.S. Fish and Wildlife to visit the site to ensure that no seeps are present. No changes to the SAP are proposed at this time.

10) Worksheet #10 on page 42 provides a list of data gaps and concerns identified for this site. The second bullet needs to add that perchlorates will be analyzed for in soil. Additional ecological receptors (e.g., vegetation and rodents) may need to be included in the analytical process for this RI.

Response 10: Bullet #2 already states that perchlorate will be evaluated in select soil samples. Please refer to the response to technical comment #4. No changes to the SAP are proposed to address this comment.

11) Table 1 on page 46 of Worksheet #11 states that if the risk assessment indicates that risks are present but are not site-related, a no further action Record of Decision will be completed for Site 25. While this would be

acceptable for the closure of Site 25, the presence of unacceptable risk may necessitate the need for further investigations to determine if a release from another unidentified site has occurred. This should be clarified.

Response 11: The Navy agrees with this comment. The determination as to whether contamination is site-related to which this comment refers will be based on background data. A parenthetical has been added to clarify this. It is assumed that no additional action will be necessary to address risks which are comparable to those posed by background concentrations.

12. Worksheet #11 on page 48 states that ecological screening values were used to evaluate risk to ecological receptors. Please confirm that EPA EcoSSLs are included in the ecological screening values for this site.

Response 12: Eco-SSLs were the primary values used during the derivation of the ESV set for soils.

13) Worksheet #11 on page 48 states that groundwater will not be quantitatively screening against ecological screening values but will be qualitatively considered in conjunction with pore water, surface water, and sediment data. Please explain why groundwater concentrations are not being compared directly to surface water ecological screening values as an additional line of evidence for this exposure pathway.

Response 13: Because Felgates Creek (the water body to which groundwater from the site will discharge) media are being evaluated directly, no additional quantitative comparison of groundwater to ESVs is necessary. However, a qualitative comparison to groundwater will be completed for any COPCs identified in the other aquatic media (surface water, sediment, and pore water).

14) Worksheet #11 on page 49 states that to evaluate ecological risk from surface water and sediment, media concentrations will be compared to marine-based screening values. Receiving waters with salinity values less than 1 part per thousand (ppt) should be considered freshwater and evaluated using freshwater criteria or benchmarks. Those with salinity values between 1 ppt and 10 ppt should be considered brackish and evaluated using the more conservative of the freshwater and marine benchmarks. Receiving waters with salinity values equal to or greater than 10 ppt are considered marine and should be evaluated using marine criteria. The salinity of Felgates Creek at the site should be used to determine appropriate screening values.

Response 14: The salinity in Felgates Creek measured during the 1997 Round I RI ranged from 18 ppt to 27 ppt at Site 25. Based on these data, marine values are appropriate. Salinity will be measured during the proposed sampling and used as the basis for selecting the appropriate set of ESVs. Collection of in field salinity data during the investigation will be used to confirm the previous data and to make adjustments in the criteria used, if necessary. No changes to the SAP are proposed to address this comment.

15) Worksheet #11 on page 52 states that "Both total and dissolved metals data will be screened against ESVs but dissolved data will be used to select ecological COPCs because they better reflect the bioavailable fraction." The selection of ecological COPCs needs to consider both total and dissolved metals data.

Response 15: Both total and dissolved metals data will be included in the screening tables but COPC selection at Step 3A will be based primarily on the dissolved metals data for the reason stated. No changes to the SAP are proposed to address this comment.

16) Worksheet #15-14 on page 90 provides the reference limits and evaluation table for the seven Aroclors in soil. The ecological screening values for the seven Aroclors listed need to change to 2,510 µg/kg, 5,000 µg/kg, 5,000 µg/kg, 5,000 µg/kg, 5,000 µg/kg, 2,510 µg/kg, and 5,000 µg/kg, respectively.

Response 16: In order to understand the proposed values, the Navy requests that the EPA provide the rationale and basis for these proposed ESVs.

17) Worksheet #15-16 on page 92 provides the reference limits and evaluation table for metals in soil. A number of the soil ESVs need to be changed from those listed on this page. The reason for the changes is because the selected EcoSSL needs to be the lowest available value of the four ecological receptor groups listed for each chemical. These changes include antimony – 0.27 mg/kg, beryllium – 21 mg/kg, cadmium – 0.36 mg/kg, chromium – 26 mg/kg, copper – 28 mg/kg, lead – 11 mg/kg, silver – 4.2 mg/kg, vanadium – 7.8 mg/kg, and zinc – 46 mg/kg. In addition, those chemicals with NA listed for an ecological receptor group need to be identified and discussed in the uncertainty section.

Response 17: For the purposes of the SAP, the lowest of the Eco-SSLs will be selected as the PAL. However, during the conduct of the ERA, only the plant/invertebrate values will be used to screen direct exposures for lower trophic level receptors. The bird/mammal values will be used in an initial screening step to determine the constituents to be included in site-specific food web modeling. Chemicals without available ESVs will be identified as COPCs for risk evaluation if they are detected. No changes to the SAP are proposed to address this comment.

18) Worksheet #15-19 on page 97 provides the reference limits and evaluation table for semivolatile organic chemicals in sediment. This table, and others, contains a footnote stating “Shading indicated that the PAL is less than the LOD. Non-detects will be reported at a value greater than the PAL; however, non-detects will not be considered exceedances of the PAL.” If the limit of detection is greater than the project action limit, then it does not make sense to conclude the LOD does not exceed the PAL.

Response 18: Agreed. However, this footnote is intended to specify that a non-detect will not be considered an exceedance of the PAL. Only detections can be exceedances. No changes to the SAP are proposed to address this comment.

19) Worksheet #17 on page 109 states that surface water samples will be collected at the top of the water column. This statement also appears on Worksheet #18 on page 114. Please clarify why this depth is the most appropriate.

Response 19: This depth was selected to allow the sample to be collected by direct immersion of the sample bottle into the water column without the need for specialized sampling equipment and to minimize sample turbidity that might occur if the sediment substrate is disturbed during sample collection. The water depth adjacent to the site is shallow enough that the depth of sample collection is not expected to be a significant factor in the observed chemical concentrations.

20) Worksheet #17 on page 110 states that sediment samples will be collected from 0 to 4 inches below ground surface (bgs). Please explain why subsurface sediment samples (4 to 8 inches bgs) are not needed.

Response 20: Surface sediment samples (4 to 8 inches bgs) have not been collected at other Yorktown sites. Exposure is to surface sediment, so subsurface sediment is not required for the risk assessment. Please provide additional clarification as to why these samples are needed.

21) Worksheet #18 on page 113 appears to incorrectly state that subsurface soil samples will be collected from 0 to 6 inches bgs. This issue should be clarified. This comment also applies to surface and subsurface soil samples associated with monitoring well locations.

Response 21: The edit was made as suggested.

22) Worksheet #18 on page 114 states that pore water will be collected from 6 inches below the sediment surface. According to Worksheet #17 (page 110), sediment pore water will be collected from 0-12 inches bgs. These locations of where pore water is to be collected are not consistent. Please explain this inconsistency or make the collection depths the same.

Response 22: Pore water samplers have a screen length of 12 inches are typically embedded with the top of the screen a couple of inches into the sediment. As such, the sample collection interval in the SAP has been changed globally to between 2 and 14 inches below sediment surface.

23) Worksheet #18 on page 115 states that sediment samples will be collected from 0-6 inches below the sediment surface. According to Worksheet #17 on page 110, sediment samples will be collected from 0-4 inches below the sediment surface. These descriptions of the depth of the sediment samples are not consistent. In addition, adding subsurface sediment samples from 4 to 8 inches below the sediment surface needs to be included.

Response 23: Please see response to comment #20.

24) Page 6 proposes analysis of VOCs, metals, and explosives in soil samples (surface and subsurface) collected in the vicinity of site buildings. However, because open burning occurred at this site, it is suggested that PAHs be included in the analytical suite for soils (unless historical data support the absence of these compounds).

Response 24: As per the response to technical comment 2, solids were removed from Building 373 and incinerated at Site 4, the Burning Pad Residue Landfill. Because there was no record of open burning at Site 25, no extensive sampling of SVOCs at Site 25 is proposed. However, in order to further confirm that the removal action addressed any SVOCs in the tank area, two additional SVOC samples were proposed in the footprint of the tank removal (SB01 and SB03), based on historical information. Please note that soil samples to be collected from drainage ditches are already being analyzed for SVOCs.

Sincerely,
CH2M HILL



Digitally signed by Laura J. Cook
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Laura J. Cook
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Mr. James Gravette/NAVFAC Midlant
Mr. Adam Forshey/CH2M HILL
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