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U S EPA REGION V COMMENTS AND U S NAVY RESPONSES TO TECHNICAL  
MEMORANDUM FOR PRESCRIPTIVE REMEDIATION SAMPLING AND ANALYSIS PLAN  
FOR SOLID WASTE MANAGEMENT UNIT 17 (SWMU 17) PCB CAPACITOR BURIAL POLE  
YARD NSA CRANE IN  
4/12/2012  
U S NAVY

**EPA REGION 5 COMMENTS (DATED 1 MARCH 2012,) AND NAVY RESPONSES THERETO, REGARDING  
THE TECHNICAL MEMORANDUM FOR PRESCRIPTIVE REMDIATION SAMPLING AND ANALYSIS FOR  
SWMU 17 – PCB CAPACITOR BURIAL POLE YARD.**

**(FINAL, 12 APRIL 2012)**

**Comment 1: On page 3, references to USEPA should be USFWS.**

Response 1: References to USEPA on page 3 have been changed to USFWS.

**Comment 2: Referring to the text in the last paragraph on page 5 stating "most sampling depths are limited to the top two feet of soil", this may be the case at SWMU 17 particularly if shallow bedrock is encountered; however, given that the objective of this effort is to delineate sufficiently for a prescriptive removal, the Navy may wish to consider collecting all intervals down to bedrock and holding deeper samples for analysis as needed to fully bound any vertical contamination > 1 ppm. Site delineation should be done so that you can show proposed excavation boundaries to < 1 ppm in vertical and lateral directions.**

Response 2: The Navy has considered this comment and decided to add an additional 1-ft depth of exploration to each planned soil boring in flood plains. The additional 1-ft depth of sample collection will be conducted in two, 6-inch segments so that contamination can be delineated vertically with a resolution of 6 inches. In addition, samples will be collected even deeper, in 1-ft intervals, to bedrock at select locations that will be determined based on a site walk scheduled for late April. These "bedrock sampling locations" will be selected to represent different types of depositional areas or other characteristics that would support adequate delineation of PCBs in flood plain soil to bedrock. At least one location in every floodplain will be selected for bedrock delineation and bedrock delineation will also be done where soil contamination is deep at the outer boundaries of a flood plain.

Tables, text, and figures associated with the flood plains sampling and analysis portion of the technical memorandum have been updated to reflect these additional delineation samples. The plan is to collect these deepest samples but not to analyze them unless the shallower samples at the same soil boring locations indicate that contamination may have extended into the deeper intervals. Samples scheduled for automatic PCB analysis are identified Table 1; analysis of other samples for PCB concentration will occur if the initial analyses demonstrate that PCB contamination has not been delineated vertically in soil to 1 mg/kg concentration. This would generally be when the otherwise deepest sample in a boring has a PCB concentration greater than 1 mg/kg; however, concentration trends will also be considered to ensure that increasing concentrations indicative of deeper PCB contamination greater than 1 mg/kg in soil are investigated.

**Comment 3: Referring to the Figure 5 reference on page 7, what about sampling to the north of borings along the northern perimeter which exceed proposed cleanup goals (e.g. 17-FL-C-092) and northeast of D-047, D-042, etc., to bound contamination in these directions?**

Response 3: Several of the sampling locations in question that exceeded 1 mg/kg PCBs represent soil immediately south of an asphalt paved site access road (e.g., east and west of 17-FL-C-092). Samples collected from within the road previously (e.g., at locations SB09, EW-C-100, and SB-13) indicate that the elevated PCB concentrations end at the southern edge of the road, therefore, sampling under the road is not necessary to delineate the lateral extent of PCB contamination in the northern direction. A ditch

immediately south of and adjacent to the road intercepts runoff from the area south of this ditch, preventing further northward migration of PCB contamination. This type of PCB contamination pattern is also consistent with PCBs having been released to surface soil while the road was in place. Therefore, no additional sampling north of the ditch along the southern edge of the road is planned. Regarding the northeastern area, the Navy agrees that two additional sampling locations would help to completely delineate PCB contamination in soil to a level of 1 mg/kg. These locations (17SB229 and 17SB230) have been added to Figure 5 at positions approximately 10 feet northeast of D-047 and approximately 10 feet northeast of D-042. Samples designated for collection there are 0-2 ft, 2-4 ft, and 4-6 ft bgs. The sample collection table and other changes were updated as necessary to accommodate this change.

**Comment 4: Referring to the text in the second paragraph of page 9 stating "elevated concentrations of PCBs", what will be the decision criteria to determine whether discrete samples will be analyzed? If the objective here is also to assist in vertical delineation of contamination, the Navy may wish to consider analysis of composites from each one foot lift of soil removed from a test pit. Composites should be a maximum of 9-points preferably collected directly from the excavator bucket.**

Response 4: The decision criterion for determining whether PCB analysis is required on discrete samples is 1 mg/kg divided by the number of 1-ft soil lifts actually removed from the pit. This has been clarified by changing the text in the second full paragraph of page 9. Additional changes were made to this paragraph to describe how to collect a well-mixed sample representing each 1-ft lift of soil removed from the pit before these samples are composited to provide a vertical composite sample of soil in the pit. The new text is as follows:

*"During test pitting, one vertical composite sample will be generated per test pit to represent the entire slab of soil removed from the pit. Under no circumstances will personnel enter a pit at any time. For a given pit, collect one discrete soil sample from each 1-ft lift of soil removed from the test pit. To achieve this, pile each bucketful of soil from a given 1-ft lift into a single pile, then collect a cross-section of all excavator bucketsful of soil, e.g., by coring or augering vertically through the pile to obtain a well-mixed, representative sample of the pile. Combine approximately half of each sample obtained in this manner to form a vertical composite sample representing all 1-ft depths of soil in the test pit in accordance with SOP-08. If the vertical composite sample representing the pit exhibits elevated PCB concentrations (based on laboratory analysis), analyze the samples representing individual 1-ft lifts to delineate the vertical PCB distribution. A vertical composite sample PCB concentration greater than 1 mg/kg divided by the number of 1-ft soil lifts removed from the pit is considered to be elevated. SOP-12 describes test pitting operations in detail, including management of test pit spoils, logging of test pit lithology, marking test pit locations, and sampling. Table 1 shows the composite sample numbers and numbers for samples representing each 1-ft lift of soil. Note that because actual excavation depths are unknown some of the depth information included in sample numbers must be generated at the time of sampling."*

An error was noted on page 9. The draft version of the Technical Memorandum indicated that the test pitting would begin in the "B" and "C" test pit groups. That is incorrect. The text in the second full paragraph of page 9 has been changed to indicate that test pitting is to begin in the "C" and "E" groups because debris was previously noted in those areas. The revised text reads as follows:

*"Because debris has been observed previously near the "C" and "E" groups of test pits, installation of test pits should begin in that area."*

**Comment 5: The first paragraph of Section 4.0 states that "sample holding times are not mandatory as long as the samples are stored in the dark under refrigeration". What is the basis for this statement?**

Response 5: Chapter FOUR, page 4-10, of the most recent update to SW-846 (Revision 4, dated February 2007) indicates that there is no holding time for PCBs in soil as long as the soil samples are stored in the dark at temperatures less than or equal to 6 degrees Celsius. The laboratory will store all samples under these conditions.

No change has been made in response to this comment.

**Comment 6: Referring to the sentence beginning with "Decontamination fluids" at the bottom of page 10 and Section 4.1.1 of SOP-09, how will PCB contamination be determined prior to discharge to NSA Crane water treatment facility. Note the discharge limits for PCB impacted water in 40 CFR 761.79(b)(1).**

Response 6: The Crane wastewater treatment plant accepts PCB concentrations less than or equal to 10 ug/L. The last sentence of Section 5.0 has been clarified as follows:

*"Decontamination fluids will be analyzed for PCBs and Total Toxic Organics (TTO) and will be discharged to an NSA Crane water treatment plant designated by the NSA Crane point of contact unless the water is contaminated with more than 10 ug/L PCBs or the TTO level is unacceptable. If the PCB concentration exceeds 10 ug/L or the TTO level is unacceptable, dispose of the water at facility approved for disposal of the determined level of TTO and PCBs (see also SOP-9)."*

Section 4.1.1 of SOP-9 has been changed as follows:

*"Collect soil sampling equipment liquid decontamination wastes and analyze them for PCBs and Total Toxic Organics (TTO) level. If the PCB concentration is less than 10 ug/L and the TTO level is acceptable, discharge the wastewater to an NSA Crane water treatment facility designated by the NSA Crane point of contact. If the PCB concentration exceeds 10 ug/L, regardless of the TTO level, the water dispose of the water at an approved PCB disposal facility. If the PCB concentration is less than 10 ug/L but the TTO level is unacceptable, dispose of the water at a facility approved for disposal of the determined level of TTO."*

**Comment 7: Referring to SOP-09, references to > 500 ppm PCB should be changed to > 50 ppm PCB as PCB liquids in excess of 50 ppm require disposal under 40 CFR 761.60(a). In Section 4.4.1, spills of more than 1 pound of PCBs must be reported to the National Response Center per 40 CFR 761.125 (a)(1).**

Response 7: All references to "500 ppm" PCBs in SOP-09 after Paragraph 4.1.2 have been changed to "50 ppm" at the following locations:

- The note immediately following Paragraph 4.1.2
- The last bullet on page 3
- The last bullet on page 4
- The last line on page 4

- The last bullet at the top of page 5.

In addition, a new bullet has been added to Section 4.4 as follows:

*“4.4.1 For all spills involving 1 pound or more by weight of PCBs:*

*4.4.1.1 Report the spill to the National Response Center (1-800-424-8802).*

*4.4.1.2 If such a spill directly contaminates surface water or sewers, notify the appropriate EPA Region 5 office and obtain guidance for appropriate cleanup measures in the shortest possible time after discovery, but in no case later than 24 hours after discovery. “*

Current bullets 4.4.1 and 4.4.2 have been renumbered as bullets 4.4.2 and 4.4.3, respectively.

**Additional Changes:** Changes were made throughout the technical memorandum to clarify existing statements, to add sampling locations in response to a site visit conducted with EPA Region 5 on March 28, and to correct some errors. A red line version of the technical memorandum text is attached to these comment responses to identify all changes. Changes to tables and figures will be submitted separately.