



**TETRA TECH**

PITT-11-7-045

November 16, 2007

Project No. 112G00477

Mr. Howard Hickey  
NAVFAC MW  
201 Decatur Avenue  
Building 1A, Code EV  
Great Lakes, Illinois 60088

Reference: CLEAN Contract N62467-04-D-0055  
Contract Task Order No. 0042

RE: Navy Response to United States Environmental Protection Agency (USEPA) Comments  
(Received Electronically: November 1, 2007) Regarding Solid Waste Management Unit  
(SWMU) 9 (Pesticide Control Area) Interim Measures Work Plan (IMWP)  
Naval Surface Warfare Center (NSWC) Crane  
Crane, Indiana

Subject: Response to USEPA Additional Clarification Request  
(Received Electronically: July 20, 2007) Regarding SWMU 9

Response to USEPA Comments  
(Received Electronically: June 14 and 21, 2007) Regarding SWMU 9 IMWP

Dear Mr. Hickey:

On September 28, 2007, Tetra Tech NUS, Inc. (Tetra Tech) transmitted responses to USEPA request for additional clarification dated June 14 and 21, 2007. On November 1, 2007 USEPA requested further clarification. Enclosure 1 presents the draft response to USEPA's November 1, 2007 request for further clarification.

To assist in review of the clarification request, Enclosure 2 presents the Tetra Tech transmittal dated September 28, 2007 that contains the first response to USEPA request for additional clarification July 20, 2007 and the original response to USEPA comments dated June 14 and 21, 2007.

An electronic copy of the attached response to comments will be provided via electronic mail (e-mail) to facilitate electronic review and comment.

Please note that the IMWP has been "marked up" as described in the responses. Unless otherwise directed, the draft version will be prepared from the markup once the Navy has reviewed and approved these responses and issued when the "contained-in" and Land Disposal Restriction (LDR) variance status have been resolved.



**TETRA TECH**

PITT-11-7-045  
Mr. Howard Hickey  
NSWC Crane  
November 16, 2007- Page 2

Please contact Valerie Plachy at 412-921-8389 (e-mail: [Valerie.Plachy@ttnus.com](mailto:Valerie.Plachy@ttnus.com)) or me at 412-921-8308 (e-mail: [Ralph.Basinski@ttnus.com](mailto:Ralph.Basinski@ttnus.com)) regarding any questions or comments.

Sincerely,

  
Ralph R. Basinski  
Task Order Manager

RRB:VJP/mlg  
Enclosure

cc: Mr. Tom Brent, NSWC Crane (letter and enclosure)  
Ms. Lee Anne Rapp, NAVFAC Atlantic (PDF copy of letter via e-mail)  
Ms. Bonnie Capito, NAVFAC Atlantic (PDF copy of letter via e-mail)  
Mr. John Trepanowski, Tetra Tech (letter and enclosure)  
Mr. Garth Glenn, Tetra Tech (letter only)  
Mr. James Goerd, Tetra Tech (letter only)  
Project File – CTO 0042

**ENCLOSURE 1**

**RESPONSES TO EPA COMMENTS DATED NOVEMBER 01, 2007  
REGARDING  
NAVY RESPONSES DATED SEPTEMBER 27, 2007  
TO  
EPA REQUEST FOR ADDITIONAL CLARIFICATION REQUEST  
DATED JULY 20, 2007 REGARDING JUNE 14 AND 21, 2007 EPA COMMENTS  
RESPONSES  
ON  
SOLID WASTE MANAGEMENT UNIT (SWMU) 9 INTERIM MEASURES WORK PLAN  
(IMWP)  
NSWC CRANE  
CRANE, INDIANA**

**RESPONSE TO EPA COMMENTS DATED NOVEMBER 01, 2007  
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NSWC CRANE  
CRANE, INDIANA**

EPA comments are shown in bold font. Navy responses to each comment are shown in regular font. Text changes to the IMWP are shown in italic font enclosed in quotation marks within the response.

**Comment EPA-Eco-1(11-01-07):** The response (Comment Eco-1) failed to explain why a high end food intake rate and a 90th percentile soil intake rate were not used to develop the soil preliminary remediation goals (PRGs) for ecological receptors.

Since considerable variation in food intake (coefficient of variation is 15 - 20%) exists for birds and mammals, a high end intake rate was applied in the U.S. EPA Guidance for Developing Ecological Soil Screening Levels (OSWER 9285.7-55), which is described in Attachment 4-1, Section 2.1 and Table 1. Likewise the proportion of soil in the diet also needs to be protective for a majority of individuals and a 90th percentile value was selected in the Eco-SSL guidance (see Attachment 4-1, Section 2.2 and Table 3) to estimate a high-end value.

The Navy's use of an average food intake rate and a 50th percentile for soil intake, to develop a soil PRG, will underestimate exposure and risk for all individuals within a species that have higher than average intake rates.

The Eco-SSL values for DDT and metabolites of 0.063 and 0.093 mg/kg (shrew and woodcock, respectively) need to be used as the NOAEL soil PRGs. By using the recent Eco-SSL report for DDT and metabolites (April 2007), a LOAEL soil PRG can be developed by substituting the LOAEL TRV into tables 5.2 and 6.2 (calculation of the avian and mammalian Eco-SSLs for DDT and metabolites, respectively). Using the equation (footnote #5) in Tables 5.2 and 6.2, rearrange the terms, insert the LOAEL TRVs (0.274 and 0.281 mg/kg/d for shrew and woodcock, respectively) and solve for "soil." The resulting LOAEL soil PRG's are 0.117 and 0.116 mg/kg for shrew and woodcock, respectively.

The Eco-SSL value for DDT and metabolites was intended to be applied to the combined concentration. The sum of individual metabolite (i.e., DDD, DDE & DDT) soil PRG values need to be no more than the corresponding NOAEL and LOAEL values.

Response to Comment EPA-Eco-1(11-01-07): Eco-SSLs are designed to be highly conservative screening level values, which are to be used in a screening-level risk assessment. Section 1.0 of the Eco-SSL guidance, second full paragraph, last sentence in states "The Eco-SSLs are not designed to be used as cleanup levels and the United States (U.S.) Environmental Protection Agency (EPA) emphasizes that it would be inappropriate to adopt or modify the intended use of these Eco-SSLs as national cleanup standards." Typically, during Step 3a (refinement of COPCs), the first step in a baseline ecological risk assessment, average exposure parameters are used for refining the COPCs. The use of average values for exposure parameters (including the 50<sup>th</sup> percentile soil intake value) to calculate the PRGs is an extension of this methodology. The Eco-SSL values for the NOAEL use a high-end soil ingestion rate and a low-end NOAEL from the studies that met the criteria for use. This lends to an overly conservative Eco-SSL value, which is needed for a screening level, but is too conservative for a cleanup number. Also, the

Eco-SSL document is unclear and does not state anywhere whether the Eco-SSL value is for total DDT or DDT and each individual metabolite. Please provide the basis for the indication that the DDT Eco-SSL is based on total DDT.

**EPA Comment-1(11-01-07):**

**Regarding Navy response to Comment EPA-1 dated 09-27-2007: Comment EPA-1 references that containerized water will be filtered prior to off-site disposal. Please note in the text that the filters will be disposed of in accordance with TSCA regulations.**

Response to EPA Comment-1(11-01-07): The 5<sup>th</sup> bullet in the 3<sup>rd</sup> paragraph of Section 3.1 has been further revised as follows:

*"Dewatering of Subsurface Soils – In the event that subsurface excavation extends below the water table, subsurface soils may need dewatering prior to disposal to meet transportation and disposal requirements. The water drained from the stockpiled soil during dewatering will be containerized, filtered, characterized, and, where applicable, managed in accordance with Toxic Substance Control Act (TSCA) regulations. The EMAC contractor will arrange for off-site disposal or treatment of containerized water. The volume of water collected through dewatering is not expected to be large unless excavation/removal is performed during periods of heavy rain."*

The last paragraph in Section 3.2.4 has been revised as follows:

*"Water that has drained from the staged soil lifts and collected within the material handling pad, along with any standing water removed from excavations, will be containerized for characterization prior to off-site disposal and, where applicable, managed in accordance with TSCA regulations."*

The 4<sup>th</sup> sentence of Section 3.2.11 has been revised as follows:

*"Wash water will be filtered, containerized, and characterized for off-site disposal or treatment and, where applicable, managed in accordance with TSCA regulations."*

The last sentence of Section 3.2.12 has been revised as follows:

*"Prior to off-site disposal, the containerized water must be filtered and an initial characterization sample must be collected and, where applicable, managed in accordance with TSCA regulations."*

**EPA Comment-2(11-01-07):**

**Regarding the Navy response to Comment EPA-3 dated 09-27-2007: Please change the text in the response that states "soils with in-situ PCB concentrations greater than 50 ppm will be segregated" to "soils with in-situ PCB concentrations greater than or equal to 50 ppm" to be consistent.**

Response EPA Comment-2(11-01-07): The 7<sup>th</sup> bullet in the 3<sup>rd</sup> Paragraph of Section 3.1 has been further revised to read as follows:

*"Off Site Disposal of Soils - Excavated soil containing PCBs will be disposed based on the in-place (in-situ) concentration of PCBs. Soils with in-situ PCB concentrations greater than or equal to 50 ppm will be segregated from soils with in-situ PCB concentrations less than 50 ppm. Soils with PCB concentrations greater than or equal to 50 ppm will be disposed in a TSCA-approved or RCRA landfill. Soils with PCB concentrations less than 50 ppm will be disposed at an NSWCC Crane-approved solid waste landfill."*

*Pesticides are present in SWMU 9 soils in concentrations that may require soil 'disposal' as a listed hazardous waste. NSWCC Crane has requested that IDEM determine whether the concentrations of pesticides in soils are such that the soils would be deemed to contain hazardous wastes. Soils 'containing' hazardous wastes must meet the Land Disposal Restriction (LDR) universal treatment standards for underlying hazardous constituents prior to land disposal. NSWCC Crane has requested an LDR treatment variance from USEPA Region 5 for these SWMU 9 soils that are subject to LDR universal treatment standards and do not meet these standards.*

*Excavated soils containing pesticides will be disposed based on whether threshold concentrations for 'contained-in' determinations are exceeded and whether soils containing hazardous wastes exceed the LDR disposal standards.*

*If USEPA Region 5 grants NSWCC Crane's LDR variance request, then soils will be segregated only on the basis of whether it 'contains' hazardous waste."*

**EPA Comment-3(11-01-07):**

**Regarding the Navy response to Comment EPA-5 dated 09-27-2007: We would like to know how your EMAC contactor will create and manage the handling pad(s) to ensure that all contaminated material is properly contained and the integrity of the pad will not be compromised. Please provide this information as soon as it becomes available.**

Response to EPA Comment-3(11-02-2007): The EMAC (NWRS) does not intend to utilize material handling / storage pads. All material from the excavation area will be directly loaded into trucks for off-site disposal. This has been addressed in the EMAC work plan.

**EPA Comment-4(11-01-07):**

**Regarding the Navy response to Comment EPA-6 dated 09-27-2007: We do not understand the response. The response indicates SWMU 13 sidewalls are being sampled every 20 to 25 linear feet while the proposed SWMU 9 sidewalls would be sampled every 100 square feet. EPA's preference would be to perform sidewall sampling every 20 to 25 feet.**

Response to EPA Comment-4(11-01-07): The text in the 1<sup>st</sup> paragraph of Section 5.2 has been updated to reflect the collection of verification samples along excavation side walls at a rate of 1 composite sample for every 25 linear feet of sidewall as follows.

*"IMWP implementation activities include the excavation and off-site disposal of surface and subsurface soil containing contaminants at concentrations causing unacceptable human health and ecological risks. These excavation areas are shown on Figures 3-1 and 3-2. Verification samples will be collected from the excavation floors and sidewalls to determine if all the IMWP soil cleanup goals have been reached. In general, as indicated in the QAPP, excavation floor samples will be collected at a rate of one composite sample for every 1,000 square feet of exposed surface area and excavation side wall samples will be collected at a rate of one composite sample for every 25 linear feet of exposed sidewall. Samples collected for DRO analysis will be collected at a rate of one grab sample per 1,000 square feet of excavation and one grab sample per every 25 linear feet of exposed sidewall. The following paragraphs describe the verification sampling procedures to be performed for each of the excavation area."*

**ENCLOSURE 2**

**RESPONSES TO EPA REQUEST FOR ADDITIONAL CLARIFICATION REQUEST  
DATED JULY 20, 2007 REGARDING  
JUNE 14 AND 21, 2007 EPA COMMENTS RESPONSES ON  
SOLID WASTE MANAGEMENT UNIT (SWMU) 9  
INTERIM MEASURES WORK PLAN (IMWP)  
NSWC CRANE  
CRANE, INDIANA**

**RESPONSES TO EPA REQUEST FOR ADDITIONAL CLARIFICATION REQUEST  
DATED JULY 20, 2007 REGARDING  
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INTERIM MEASURES WORKPLAN (IMWP)  
NSWC CRANE  
CRANE, INDIANA**

The following are questions from Dan Mazur on the ecological (Eco) portion of the responses:

**Comment Eco-1: The values used for food & soil ingestion rates for tables 1 and 2 do not appear to correspond with values generated for the Eco-SSL documents as follows: shrew food ingestion rate (FIR) is 0.209 kg dw/ kg bw/ day and shrew soil ingestion is 0.03 (proportion of diet). In table 1, the FIR is 0.001648 kg/day (1.648E -3 kg/d) and the soil ingestion rate is 1.483E-5 kg/d (which is 0.009 proportion of the diet).**

**Please provide some clarification on how the ingestion rates were generated (correction for wet weight). Same issue for the woodcock in table 2.**

Response to Eco-1: The information in the IMWP regarding ecological receptors is a summary of the findings presented in the Internal Draft RFI Ecological Risk Assessment (ERA), which has not been submitted for agency review. The IMWP does not include all of the supporting documentation normally included in a formal ERA. A description is given below that summarizes the derivation of the food ingestion rate issue raised by the comment, and additional tables are included in this response as described below.

The EPA Eco SSL Attachment 4-1 Table 1 gives the ingestion rates in grams (g) dry weight per g body weight per day (the 0.209 value that is referred to in the comment). The values in Table 1 and Table 2 in the IMWP Response to Comment (6-21-07)-1 for ingestion rates are given in kg/day. The calculations of those factors are detailed in the attached Table 3 - Calculation of Exposure Parameters for Surrogate Wildlife Receptors and are listed in Table 4 - Exposure Parameters for the Terrestrial Wildlife Model. The description is as follows:

Ingestion Rates (kg/day)

Avg. value = Avg. Ingestion rate (g food wet weight/g body weight-day) \* Avg. Body Weight (g)

For the shrew the average food ingestion rate and body weight calculated from the USEPA (1993) Wildlife Exposure Factors Handbook are 0.61 g/g-day and 16.87g, respectively (derivation shown in attached Table 3).

Average Food Ingestion Rate = 0.61 g/g-day \* 16.87 g  
= 10.3 g/day  
= 0.0103 kg/day (wet weight value)

This was a wet weight value, so the dry weight was calculated as in the following manner. The food ingestion rate was converted from wet weight to dry weight by multiplying by the percent solids in the food items. For the shrew and the woodcock, 16% solids in earthworms (Sample, B.E., M.S. Aplin, R.A. Efrogmson, G.W., Suter II, and C.J.E. Welsh. 1997. Methods and Tools for Estimation of the Exposure of Terrestrial Wildlife to Contaminants. Oak Ridge National Laboratory. October. ORNL/TM-13391.)

Food ingestion rate (dry weight) (kg/d) = 0.0103 kg/d \* 0.16  
= 0.001648 kg/d

The same process was used for the woodcock.

Soil Ingestion Rate

The shrew soil ingestion rate for the average scenario (0.9% or 0.009) was from the 50<sup>th</sup> percentile (mean) value listed in Table 3 in the USEPA Eco SSL Attachment 4-1.

The same process was used for the woodcock.

No changes have been made to the SWMU 9 IMWP to address this comment.

**Aside from Dan's questions, I'm OK with the responses dated 7-09-07 and will wait to see the QAPP for more details on certain aspects. Those were my 'preliminary comments' - here are my comments after looking through the hardcopy version of the workplan in detail.**

**Comment EPA-1(7-20-07): Referring to the third bullet on page 3-2, Section 5.0 should contain the criteria which will be applied to collected water from dewatering and decontamination operations or which is otherwise collected for characterization prior to disposal.**

Response EPA-1(7-20-07): This comment appears to be based on the discharge of water from the remediation activities into NSW Crane drainage channels or storm drains. Waters from the IMWP remediation activities will not be discharged onsite but will be taken offsite. Criteria for the offsite disposal of IMWP remediation activities waters will be based on the disposal facility criteria. The characterization sampling for generated water and excavated soil will be addressed in the QAPP and in the EMAC contractor's Characterization Sampling Plan.

The 5<sup>th</sup> bullet in the 3<sup>rd</sup> paragraph of Section 3.1 has been revised as follows:

*"Dewatering of Subsurface Soils – In the event that subsurface excavation extends below the water table, subsurface soils may need dewatering prior to disposal to meet transportation and disposal requirements. The water drained from the stockpiled soil during dewatering will be containerized, filtered, and characterized. The EMAC contractor will arrange for off-site disposal or treatment of containerized water. The volume of water collected through dewatering is not expected to be large unless excavation/removal is performed during periods of heavy rain."*

The last paragraph in Section 3.2.4 has been revised as follows:

*"Water that has drained from the staged soil lifts and collected within the material handling pad, along with any standing water removed from excavations, will be containerized for characterization prior to off-site disposal."*

The 4<sup>th</sup> sentence of the last paragraph in Section 3.2.11 has been revised as follows:

*"Wash water will be filtered, containerized, and characterized for off-site disposal or treatment."*

The last two sentences of the 1<sup>st</sup> paragraph in Section 3.2.12 have been revised as follows:

*"Prior to off-site disposal, the containerized water must be filtered and an initial characterization sample must be collected."*

**Comment EPA-2(7-20-07): Referring to the last bullet on page 3-3, will this EMAC contractor prepared plan be part of the future QAPP?**

Response EPA-2(7-20-07): A QAPP is being prepared for the confirmation sampling. Once the EMAC contractor is awarded the work, the EMAC will be requested to provide the necessary information regarding the detailed site characterization sampling plan. The last bullet in Section 3.1 has been modified to read as follows to address this comment.

*"Detailed Characterization Sampling Plan – The EMAC contractor will prepare a characterization sampling plan as indicated in Table 3-1. This plan must describe sampling procedures for collected soil, wastewaters, and removed debris. The sampling procedures and analytical methods must comply with acceptable methods and must comply with the requirements of the approved waste disposal facility. The EMAC contractor will also provide these waste characterization procedures to Tetra Tech for inclusion into the Confirmation Sampling Quality Assurance Project Plan (QAPP)."*

**Comment EPA-3(7-20-07): Text on disposal characterization needs to be clarified. For example, the first bullet on page 3-3 states that "some of" the material will be disposed of based on "in-place" concentrations. This should apply to PCB soils and should be stated as such. Text in Section 3.2.1 states that soils from excavations will be stockpiled or containerized separately for characterization purposes. PCB soils must be disposed of based on in-situ concentrations and may be segregated based on > 50 ppm and < 50 ppm concentrations. RCRA excavated soils from different locations should not be mixed or otherwise diluted. The text also mentions potential utilization of roll-off boxes.**

Response EPA-3(7-20-07): The 7<sup>th</sup> bullet in the 3<sup>rd</sup> Paragraph of Section 3.1 has been revised to read as follows:

*"Off Site Disposal of Soils - Excavated soil containing PCBs will be disposed based on the in-place (in-situ) concentration of PCBs [i.e., greater than or less than 50 parts per million (ppm)]. Soils with in-situ PCB concentrations greater than 50 ppm will be segregated from soils with in-situ PCB concentrations less than 50 ppm. Soils with PCB concentrations greater than or equal to 50 ppm will be disposed in a Toxic Substance Control Act (TSCA)-approved or RCRA landfill. Soils with PCB concentrations less than 50 ppm will go to an NSWC Crane-approved solid waste landfill.*

*Pesticides and herbicides are present in SWMU 9 soils in concentrations that may require soil 'disposal' as a listed hazardous waste. NSWC Crane has requested that IDEM determine whether the concentrations of pesticides and/or herbicides in soils are such that the soils would be deemed to contain hazardous wastes. Soils 'containing' hazardous wastes must meet the Land Disposal Restriction (LDR) universal treatment standards for underlying hazardous constituents prior to land disposal. NSWC Crane has requested an LDR treatment variance from USEPA Region 5 for these SWMU 9 soils that are subject to LDR universal treatment standards and do not meet these standards.*

*Excavated soils containing pesticides and/or herbicides will be disposed based on whether threshold concentrations for 'contained-in' determinations are exceeded and whether soils containing hazardous wastes exceed the LDR disposal standards.*

*If USEPA Region 5 grants NSWC Crane's LDR variance request, then soils will be segregated only on the basis of whether it 'contains' hazardous waste."*

**EPA Comment EPA-3(7-20-07) (continued): Wouldn't it be more advantageous to direct load excavated soils into roll-off boxes instead of staging and double handling them?**

Response EPA-3(7-20-07) (continued): Agreed. However, because the IMWP was developed as a document to be submitted to contractors as part of a request for bid package, it was left up to the individual contractors to determine the most advantageous way to handle excavated soils. As indicated in Table 3-1 of the IMWP the selected contractor will provide a Work Plan. This work plan will describe the handling procedures for excavated soil.

**Comment EPA-4(7-20-07): The table presented in Section 3.2.6 does not seem to reflect the values presented in the tables in the preceding sections. For example, text states that soils classified as hazardous waste are present, yet the table has blanks or zeroes in the "Hazardous" column. Please correct any inconsistencies.**

Response EPA-4(7-20-07): The zeroes in the hazardous and non-hazardous columns represent the anticipated volume of that type of waste for that particular location. For example, the area adjacent to Building 150 is expected to be all non-hazardous waste. Therefore, on the referenced table, it is reported that for Building 150, 26 cubic yards of material will be excavated and disposed as non-hazardous waste and 0 (zero) cubic yards will be disposed of as hazardous waste. As for the apparent inconsistencies, the table summarizes all of the excavated materials (delineated and side-slope material for the purposes of generating a safe excavation), for example, the 930 cubic yards of soil to be disposed of as non-hazardous waste reported for the Fire Training Area includes 223 cubic yards of surface soil (reported in the Table on page 3-4), 395 cubic yards of non-hazardous subsurface soil (reported in the Table on page 3-5 first row), and 312 cubic yards of non-hazardous sidewall soil (reported in the Table on page 3-5 third row). However, based on the conclusions of the evaluation being conducted under Comment EPA-3(7-20-07), these volumes will likely need to be modified.

For clarification, the excavation volumes throughout the text have been revised to be consistent with the volumes listed in the tables. Additionally, the approximate excavation dimensions have been replaced with the excavation volumes listed in the tables.

**Comment EPA-5(7-20-07): Referring to Section 3.2.12 states that an 8-mil thick polyethylene geomembrane will be overlaid with a gravel drainage layer. Is there any concern about piercing this liner with the gravel and/or soil/sediment/machinery loads?**

Response EPA-5(7-20-07): The referenced 8-millimeter (mil) polyethylene geomembrane is a minimum requirement to ensure the containment of water. Ultimately, it is the EMAC contractor's requirement to evaluate how they plan to use the handling pad(s), what types of equipment they plan to operate within the material handling pad(s), and what construction materials will stand up to this type of use to prevent the impact of underlying soils.

**Comment EPA-6(7-20-07): Referring to Section 5.2/5.3 and with the understanding that the QAPP will provide detail on numbers and locations of verification samples, the Navy should maintain consistency with the SWMU 13 PCB IM workplan for sidewall sampling every 20 to 25 linear feet.**

Response EPA-6(7-20-07): This comment is noted. However, the decision to go with collecting verification samples along the SWMU 13 sidewalls every 20 to 25 linear feet and along the SWMU 9 sidewalls every 100 square feet was based on the excavation approach. At SWMU 9, the initial excavation is defined by connecting clean sample locations, where the initial excavation for SWMU 13 was defined by connecting contaminated sample locations. This verification sampling is consistent with the methodology used for SWMU 8 verification sampling.

No changes have been made to the SWMU 9 IMWP to address this comment.

**How will composite sample results be compared to criteria? Direct? UCL?**

Response EPA-6(7-20-07) (continued): The Composite results will be compared directly to the criteria. The 1<sup>st</sup> bullet in the 2<sup>nd</sup> Paragraph of Section 5.1 has been replaced with the following text:

- *“Soil Excavation Areas - Verification samples will be collected from the excavation side walls and excavation floor in the three soil excavation areas. Based on the estimated extent of excavation at the former Building 55 area, ten excavation floor samples will be collected and eleven excavation sidewall samples will be collected. From the excavation area on the southern end of Building 150, one excavation floor sample and four excavation side wall samples will be collected. Lastly, at the former fire training area, two excavation floor samples and six excavation sidewall samples will be collected. The verification samples will be analyzed for the COCs (i.e., pesticides, PCBs, and/or DRO) at each excavation area. The analytical results of these samples will be directly compared to the COC media cleanup goals. The following is a listing of the COCs that are present at each of the three excavation areas.*

| <b>Excavation Area</b>    | <b>Applicable COCs</b> |
|---------------------------|------------------------|
| Former Fire Training Area | PCBs                   |
| Former Building 55 Area   | Pesticides and DRO     |
| Building 150 Area         | DRO                    |

*“In the event that verification sample results indicate that COC concentrations remaining in an excavated area still pose unacceptable human health or ecological risks (COC concentrations greater than COC media cleanup goals), the Navy may direct the EMAC contractor to extend the excavation in the appropriate direction(s). The extent of additional excavation will depend on the location and concentrations of the COCs that still pose risks to human or ecological receptors. Following the additional excavation effort, additional verification samples will be collected by Tetra Tech. Excavation expansion may continue, at the discretion of the Contracting Officer, until all verification sample results indicate that all COC concentrations within the excavated area fall within acceptable human health and ecological risks (COC concentrations less than the COC media cleanup goals).”*

**Petroleum verification should be consistent with the IDEM RISC TPH guidance (e.g. PEC comparison to criteria).**

Response to EPA-6 (7-20-07) (continued): Comment noted, as indicated above, the COC concentrations found in the verification samples will be directly compared to the COC media cleanup goals.

**In this section or other appropriate section, discharge limits to the Crane sewer for water (e.g., collected stockpile water) should be listed (e.g. PCB < 0.5 ppb). Section 5.2 also states that a number of samples will be selected for fixed-based lab analysis - will this be expanded upon in the QAPP?**

Response to EPA-6 (7-20-07) (continued): The IMWP has been revised to indicate that all collected water will be discharged offsite [see response to Comment EPA-1 (7-20-07)].

**Non-Technical Modifications to the SWMU 9 IMWP:**

1 - The following acronyms definition has been added to the 5<sup>th</sup> paragraph table in Section 5.2:

*"ppm - parts per million.*

*"ppb - parts per billion."*

2 - The following acronyms have been added to the acronym list:

*"TSCA*

*Toxic Substance Control Act*

*"LDR*

*Land Disposal Restriction"*