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NAS SOUTH WEYMOUTH  
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LETTER AND COMMENTS FROM U S EPA REGION I REGARDING DRAFT REMOVAL  
ACTION WORK PLAN FOR AREA OF CONCERN 55C NAS SOUTH WEYMOUTH MA  
12/11/2009  
U S EPA REGION I



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, REGION I  
5 Post Office Square, Suite 100  
Boston, MA 02109-3912

December 11, 2009

Brian J. Helland, P.E.  
BRAC Program Management Office NE  
4911 South Broad Street  
Philadelphia, PA 19112-1303

Re: Draft Removal Action Work Plan Area of Concern 55C

Dear Mr. Helland:

EPA reviewed the Draft "Removal Action Work Plan for Area of Concern 55C" at the Naval Air Station South Weymouth, dated November 2009 (RAWP for AOC-55C) for consistency, technical accuracy and completeness and for general compliance with EPA guidance. The document presents the removal action objectives and describes the methods and procedures that will be used to conduct the removal action. Detailed comments are provided in Attachment A.

The one figure presented in the work plan does not clearly designate the area targeted for excavation. While the limits of disturbance are shown on the figure, please specifically identify the area that is planned for excavation on the figure. This is important because the limits of disturbance encompass a different area than the area designated in the Engineering Evaluation and Cost Analysis for excavation.

There is a discrepancy between the work plan text (page 3-5, §3.6) and the Sampling and Analysis Plan (SAP) regarding the size of the grid for confirmatory sampling of the bottom of the excavation. The work plan text states that one five point composite sample will be collected every 500 square feet. The SAP states that one five point composite will be collected every 1,000 square feet. Please reconcile the discrepancy. Also, please describe the confirmation sampling scope consistently when discussed. In some instances the specific bottom composite samples at the two deeper excavation areas are included and in other instances they are not mentioned. Similarly, the five point composite under the stockpile area is only mentioned sometimes.

The SAP does not consistently identify the proper contaminants of concern when the analyte lists for soil and sediment are discussed. In most instances, the analyte list for sediment does not include cadmium and copper. For the soil list, total PCBs are listed, but Aroclor 1260 is also required. Please review the work plan and correct these inconsistencies throughout.

In establishing the confirmation sampling grids for the bottom samples, to the extent possible, EPA requests that adjacent grids be rotated 90 degrees from one another so that the five subsamples that make up the composite sample are spread more uniformly throughout the bottom area rather than having the corner samples in each grid located close to one another. Please include a sketch in the work plan depicting this sampling scheme.

Please present a default analyte list for the waste characterization sampling with the caveat that the list is subject to modification based on the requirements of the selected disposal facility. The default list should be the comprehensive list that is regularly required for disposal characterization and at a minimum should address requirements for Massachusetts landfills or the requirements of a specific facility if one has tentatively been selected. It is noted that Exhibit VII-1 in Appendix C contains such a list.

Further regarding waste characterization, please include a sampling protocol for the collection of the waste characterization samples. Typically a multi-subsample composite sample is collected for every 500 cubic yards (CY) of waste. A protocol such as dividing the 500 CY stockpile into quarters and collecting two subsamples from each quarter (one shallow and one deep) would be appropriate.

The PRGs presented in SAP Worksheet #10 are conservative and appropriate. However, for many of the sediment COCs, the PRG is the SOWEY background UPL. While this is a conservative approach, incorrect background numbers are used. As recognized in the Ecological Risk Assessment (page 4-35), the background UPLs for soil are actually more appropriate than the SOWEY sediment background UPLs for comparison to AOC 55C sediments because the AOC 55C sediment are more like soils than submerged sediments. The PRGs for sediments should be based on the background UPLs for soil.

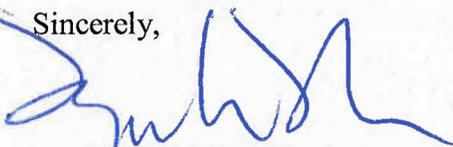
The October 2009 Ecological Risk Assessment identifies copper, lead, and zinc as COCs for soil invertebrates and plants and does not present an argument for exonerating these chemicals. Please incorporate these COC for these receptors into the PRG derivation. Likewise, the October 2009 Ecological Risk Assessment identifies mercury as a soil COC based on elevated HQs for the robin. Therefore, a PRG for mercury in soil should be derived. The October 2009 Ecological Risk Assessment also identifies mercury as a sediment COC based on elevated HQs for the Carolina wren. Please derive a PRG for mercury in sediment.

All references to the Human Health and Ecological Risk Assessments should cite the October 2009 final documents.

Although the plan requires returning the topography of the wetland to "similar topography to the historic and surrounding wetland conditions" (first paragraph of Section 3 of Appendix E), it is especially important to retain the vernal pool characteristics of the wetland. EPA therefore recommends that the wetland elevations are carefully surveyed before excavation.

I look forward working with you and the Massachusetts Department of Environmental Protection to remove contamination from AOC 55C. Please do not hesitate to contact me at (617) 918-1385 should you have any questions.

Sincerely,



Kimberlee Keckler, Remedial Project Manager  
Federal Facilities Superfund Section

Attachment

cc: Dave Barney, USN, South Weymouth, MA  
Dave Chaffin, MADEP, Boston, MA  
Kevin Donovan, SSTTDC, South Weymouth, MA  
Phoebe Call, TTNUS, Wilmington, MA

## ATTACHMENT A

| <u>Page</u>                  | <u>Comment</u>  |
|------------------------------|---|
| p. 2-1, §2.0                 | The last paragraph summarizes the HHRA conducted at AOC 55C. The text should specify that the HHRA identified total PCBs as a soil COC for human health.  |
| §3.2                         | Please conduct a survey of elevations in the wetland before mobilization so that these elevations can be accurately restored afterwards. Please describe this survey in the work plan.  |
| §3.2.4                       | Please replace “in a manor where as any water from the excavated soils will be allowed to drain back into the debris removal area” with “in a manner whereby any water from the excavated soils will be allowed to drain back into the debris removal area.”  |
| §3.7, bullet 1               | Please change “Backfilling and grading to approximate elevations” to “Backfilling and grading to pre-construction elevations or, as appropriate, to achieve probable historic topography while retaining vernal pool characteristics.” Grading should be designed to achieve highly accurate elevations.  |
| §4.4                         | Please replace “in a manor where as any water from the excavated soils will be allowed to drain back into the debris removal area” with “in a manner whereby any water from the excavated soils will be allowed to drain back into the debris removal area.”  |
| §5.0, ¶2                     | Please specify that a copy of the written report will also be sent to both EPA and DEP at the end of the growing season.  |
| §5.5                         | It would be preferable to prevent herbivory of trees rather than to implement preventive measures after it is observed. Please consider installing plastic sleeves around the main stem of the installed trees to prevent herbivory.  |
| Appendix C, Exhibit VII-1    | Regarding the waste characterization analysis, the parameters listed include <i>Maine DRO, GRO</i> . This suggests that either disposal is planned for Maine or this is a remnant from another project. Please review and correct as appropriate.   |
| Appendix D, SAP Worksheet 3  | Please add EPA to the distribution list.  |
| Appendix D, SAP Worksheet 10 | a) On page 18 of 139 there is one example where the SAP specifies bottom samples every 1,000 square feet. There are other similar citations throughout the SAP. Please reconcile this with the work plan text that calls for samples every 500 square feet.<br><br>b) In the soil COC table, footnote 2 is included with every citation of background except for arsenic. Review of the footnotes suggests that footnote 5 would be the |

proper footnote to cite for these background references. Footnote 2 appears appropriate only for the Selection Basis Header line. Please review and correct as appropriate.

c) On page 20 of 139 there is one example where the reference to the confirmation sample under the stockpile was not included in the discussion of the confirmation samples required. Please correct the work plan throughout to consistently refer to all the required confirmation samples when the list of confirmation samples is presented.

Appendix D, a) On page 49 of 139 the number of floor and sidewall samples have been  
SAP inadvertently transposed. There should be approximately twenty floor samples and  
Worksheet 18 approximately six sidewall samples. Please correct throughout the work plan.

b) This worksheet does not specifically mention the bottom confirmation samples at the deeper excavations. For clarity, if they are included in the sample count provided, add a note to the rationale column to indicate that the proposed number of bottom samples includes the bottom samples at the deeper excavations. If that is not correct, please edit the worksheet appropriately to include these samples.

c) It would be appropriate to collect separate sidewall confirmation samples from the two deeper excavations. Please collect a four point composite sample from the sidewalls of each of these excavations (one sidewall sample per excavation).

d) As noted elsewhere, the list of COCs for each confirmation sample needs to be corrected. Sediment samples and the sample beneath the stockpiles need to include cadmium and copper. Similarly, the field and equipment blanks and the fill material samples also need to include cadmium and copper.

e) Please review the footnote at the bottom of page 50 of 139 and edit as necessary to conform with any changes made to the number of sidewall and floor samples based on these comments.

Appendix D, a) This worksheet refers to *Total PCBs* consistently throughout. EPA presumes that  
SAP the analysis will be for *PCBs*, meaning that all Aroclors will be identified and that  
Worksheets the total of the Aroclors will be compared to the remedial goal for total PCBs, except  
19, 20, & 30 that Aroclor 1260 must also be specifically reported for soils. Please edit this  
worksheet to make that clear.

b) As noted in other comments, please add cadmium and copper to the analyte list for all sediment-related samples, the sample(s) under the stockpile, and the fill material sample.

c) Please also add the sample under the stockpile to this worksheet and also list separately where the samples (floor and sidewalls) for the deeper excavations are included.

Appendix D, a) Please review footnote 8 and modify as necessary based on changes

SAP made in response to these comments.  
Worksheet 20

Appendix D, If the intent is to use selected ion monitoring (SIM) for PAH detect. please  
SAP edit this worksheet to make that clear.  
Worksheet 23

Appendix E, This bullet states that the wetlands will be restored to pre-existing hydrology. Please  
§1.2, bullet 1 describe how the topography will be restored to probable “historic and surrounding  
wetland conditions,” while assuring retention of vernal pool conditions.

Appendix E, Please edit the second bullet because work cannot contain habitat. Does it mean that  
§1.2 work within the wetlands and buffer is not allowed if that portion of the wetland and  
buffer contains rare wildlife habitat? Or does it mean that the contractor will not  
work in areas of rare habitat? It may be preferable to state that the contractor will  
review the most recent Estimated Habitat Maps of the Natural Heritage Program to  
ensure that there is no rare wildlife habitat in the work area.

Appendix E, a) The third paragraph refers to Figure 3 (Excavation Limits), but Figure 3 does not  
p. 3-1, §3.0 identify the excavation limits. Please edit the figure to clearly identify the  
excavation limits.

b) Who is the local Conservation Commission and will an Order of Conditions be  
obtained from the Conservation Commission?

c) Please edit the fifth bullet to state “Development of a Restoration Monitoring  
Plan and monitoring of the site ....”

Appendix E, The first paragraph refers to 12% minimum organic content for the topsoil peat  
p. 3-2, §3.3 mixture and the first bullet on page 3-3 refers to a minimum organic content of not  
less than 20% by weight. Please reconcile this discrepancy.

Appendix E, The first paragraph states that the final grading associated with the wetland reflects  
§3.0 similar topography to the historic and surrounding wetland conditions. Please  
specify that the final grading will achieve pre-existing topography and hydrology to  
the extent that it retains vernal pool characteristics and probable historic and  
surrounding wetland conditions.

Appendix E, Please consider installing larger trees so that shading will be achieved faster, thereby  
§4.0 limiting the possibility of invasive species rapidly overshadowing smaller tree  
seedlings during the first year.