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RESPONSE TO U S EPA REGION 4 AND NORTH CAROLINA DEPARTMENT OF
ENVIRONMENT AND NATURAL RESOURCES COMMENTS REGARDING DRAFT EE/CA D-9
SKEET RANGE SOURCE REMOVAL

8/22/2011
CH2M HILL

Response to Comments
Draft Engineering Evaluation/Cost Analysis
D-9 Skeet Range Source Removal
MCB CamLej, North Carolina

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Introduction

The purpose of this document is to address comments on the Draft Engineering Evaluation/Cost Assessment (EE/CA) for the D-9 Skeet Range Source Removal. The United States Environmental Protection Agency (USEPA) and the North Carolina Department of Environment and Natural Resources (NCDENR) provided the comments listed. The responses to comments are provided in bold.

United States Environmental Protection Agency Comments (dated June 14, 2011)

Comments from David Buxbaum, EPA Region 4 Attorney:

My cursory review of the EE/CA revealed several issues with respect to the on-site treatment options related to RCRA ARARs and compliance with LDRs as well as EPA guidance. Also, the descriptions of all of the removal alternatives need to include better description of the compliance with RCRA ARARs related to waste storage, on-site treatment and off-site disposal. It is not clear for Alternative 2 whether the treatment occurs off-site and whether the costs include that process.

Before I submit detailed comments and suggested revisions, it might be beneficial to limit the removal alternatives to just two or three that can utilize most of the existing ARARs with limited additions/revisions. Alternatives 2 and 5 would share many of the same ARARs; however, many of the RCRA requirements would not apply to Alt 5 since there would not be much waste generated due to in-situ treatment.

Alternative 3 entails soil washing ex-situ and then re-disposal into the excavated area (deemed an AOC) would nevertheless trigger RCRA LDRs and thus the treated soil would have to meet LDRs for all constituents subject to treatment and be rendered non-characteristic as well. The treatment residuals (both debris and wastewaters) must be managed as RCRA hazardous waste and also would require further treatment to meet LDR treatment standards before disposal in off-site RCRA

Subtitle C landfill or NPDES WWTU. As you can tell, this would require additional ARARs that are not included in the existing table.

I have included my generic RCRA ARARs table with certain entries highlighted that need to either be added to the EE/CA table or existing entries revised to include the updated version of the requirements, in particular for characterization of solid and hazardous waste. A staging pile would be useful for temporary staging/segregation of the excavated soils before off-site disposal. Also, there are transportation exemptions for hazardous waste samples.

Please forward the ARARs table to the team (in particular Navy Contractor) and discuss whether they want to streamline the removal alternatives which will make my review/comments much simpler and shorter. If they want to maintain "as is" then I'll have to submit fairly detailed comments and there will be considerably more ARARs to add to the table. I am happy to further discuss my concerns and provide any clarification.

Comments from Gena Townsend, EPA Region 4 Remedial Project Manager:

In summary, the list of alternatives should be reduced or be prepared to develop a more detailed ARAR list.

At this time, the preference is to develop a more detailed ARAR list based on the example provided. Descriptions and comparisons of the removal alternatives will include discussions regarding compliance with the revised ARARs with respect to waste storage, on-site treatment, and off-site disposal. These revisions will be incorporated into the Draft Final EE/CA and re-submitted for detailed review.

North Carolina Department of Environment and Natural Resources Comments (dated July 1, 2010)

General Comments

The NC Superfund Section accepts removal alternative 2; however, this alternative does not meet the NCP preference for treatment. Alternative 3 is the State's preferred remedy for this removal action since it reduces toxicity, mobility, and volume by removing the lead contaminants and recycling the natural resource. Removal alternative 3 has the least traffic on public roads and doesn't relocate the contaminated soil to a landfill.

Removal alternative 4 is a better remedy than most since it treats the contaminated soil to non-hazardous concentration and reduces contaminant mobility. However, alternative 4 has the most public contact during transport of treated soil by thousands of trucks over public roads for long distances. Alternative 4 is acceptable to the State if the characterization samples for offsite disposal are representative of each 500 tons that are sampled. See my specific comment on this issue.

Removal alternative 5 is presently not acceptable to the NC Superfund Section since it does not permanently reduce the toxicity or mobility of the contaminants. Alternative 5 would be acceptable to the State if the contaminants are stabilized and solidified and covered with 2 feet of clean cover. Alternative 5 would also require

land use controls (LUCs) to prevent future digging or construction in the solidified materials. The characterization samples would also need to be representative of the treated material.

This comment is respectfully acknowledged.

Specific Comments

1. Table E-1; Alternative 5 does not effectively treat the soil permanently for lead toxicity and mobility and does not reduce the volume of the lead contaminants. Therefore, risks are not permanently addressed.

Alternative 5 does not permanently reduce the toxicity or volume of lead in soil; however, the stabilization agent is intended to bind and immobilize lead.

2. The third paragraph on section 4.2.3 on page 4-4 states, "Approximately 1 sample will be collected per 500 tons of treated soil." One grab sample is not representative of 500 tons of soil. Each characterization sample should consist of a 10 aliquot composite at a minimum. This is important since the screened and washed materials in alternative 3 will be back-filled in the barracks area.

Agreed. The text will be revised as follows: "Approximately 1 composite sample would be collected per 500 tons of treated soil excavated for backfill characterization. Each composite sample would consist of at least ten representative aliquot samples collected from the treated soil."

3. The treated materials in alternative 4 for off-site disposal at a landfill should also be a 10 aliquot composite sample, as well as the PAH contaminated soil for alternative 5.

Samples for off-site disposal characterization will be collected in accordance with the Waste Management Plan and requirements of the disposal facility.

4. Please clarify in the details section of the EE/CA how the contaminated sludge from the soil washing process in alternative 3 will be further treated.

The contaminated sludge resulting from the soil washing process will be characterized using TCLP and any other disposal facility requirements and disposed of accordingly as a non-hazardous or hazardous waste. This will be included in the text in Section 4.2.3.

5. Section 6.2 states, "Of the active alternatives, Alternative 4 is the most easily implementable. This is not immediately obvious and seems to be counter intuitive since Alternative 5 is half the work of Alternative 4. Please give a brief explanation after this statement to clarify your reasoning.

Alternative 4 is the most easily implementable because stabilization and excavation are proven and reliable technologies, the equipment and materials are readily available, additional permitting is not required for the management and

disposal of non-hazardous waste, and no future remedial actions for soil are anticipated. Alternative 5 would require LUCs until future remedial actions for soil are conducted.

6. The last sentence in the paragraph for Step 3 on page A-4 is somewhat unclear. The sentence above the last sentence seems to clarify how the data set will be used. I would recommend that the last sentence be removed from the paragraph.

Agreed. The last sentence of Step 3 on page A-4 will be deleted.

7. The second paragraph under the Human Health Risk Screening Results at the bottom of page A-4, states, "Step 3 could not be performed for the surface soil as there were less than five samples." Please add the following sentence to this paragraph. "Therefore, the maximum concentration from the data set was used as the exposure point concentration (EPC)".

This sentence will be added.

8. The last paragraph on page A-4 should add the words "and subsurface soil" after the words "surface soil". Table A-2 is not included in the Navy's Web page version previously called Enterprise. Please make appropriate corrections in the final document.

This sentence will be revised. Table A-2 will be included in the final document.

9. The Division IH is in the process of reviewing the Risk Screening Sections of the EE/CA and his comments will be forwarded at a later date.

Comments received by the Division IH will be addressed upon receipt.