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DEPARTMENT OF THE NAVY
NAVY ENVIRONMENTAL HEALTH CENTER
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From: Commanding Officer, Navy Environmental Health Center
To: Commander, Atlantic Division, Naval Facilities Engineering Command, Attn: Randy Jackson, 1510 Gilbert Street, Norfolk, VA 23511-2699

Subj: REVIEW OF INSTALLATION RESTORATION PROGRAM DOCUMENTS FOR ST JULIENS CREEK ANNEX, CHESAPEAKE, VIRGINIA

Ref: (a) CH2M Hill transmittal ltr of 2 Dec 96

Encl: (1) Medical Review of "Work Plan and Sampling and Analysis Plan for the Remedial Investigation and Feasibility Study, Landfill C (Site 3) and Landfill D (Site 4), St. Juliens Creek Annex, Chesapeake, Virginia"
(2) Medical/Health Comments Survey

1. Per reference (a), we have completed a medical review of the "Work Plan and Sampling and Analysis Plan for the Remedial Investigation and Feasibility Study, Landfill C (Site 3) and Landfill D (Site 4), St. Juliens Creek Annex, Chesapeake, Virginia" and are forwarding it to you as enclosure (1).

2. Please complete and return enclosure (2). Your comments are needed to continually improve our services to you.

3. We are available to discuss the enclosed information by telephone with you and, if necessary, with you and your contractor. If you require additional assistance, please call Ms. Wendy Bridges at (757)-363-5552 or Mr. David McConaughy at (757) 363-5557. The DSN prefix is 864.

Andrea Lunsford

A. E. LUNSFORD
By direction

MEDICAL REVIEW OF DRAFT WORK PLAN AND SAMPLING AND ANALYSIS PLAN FOR THE REMEDIAL INVESTIGATION AND FEASIBILITY STUDY, LANDFILL C (SITE 3) AND LANDFILL D (SITE 4), ST. JULIENS CREEK ANNEX, CHESAPEAKE, VIRGINIA

Ref: (a) Risk Assessment Guidance for Superfund, Volume I, Part A: Human Health Evaluation Manual, December 1989 (EPA 540/1-89/002)

General Comment: The draft document entitled "Work Plan and Sampling and Analysis Plan for the Remedial Investigation and Feasibility Study Landfill C (Site 3) and Landfill D (Site 4), St. Juliens Creek Annex, Chesapeake, Virginia," was provided to the Navy Environmental Health Center (NAVENVIRHLTHCEN) for review on 5 December 1996. The report was prepared for Atlantic Division, Naval Facilities Engineering Command by CH2M Hill.

Review Comments and Recommendations:

Work Plan

1. Page 4-5, "Groundwater Sampling"
   Page 4-10, "Soil Sampling"

Comment: Background samples are not mentioned for any medium of concern at Site 3 or Site 4. It is not clear whether background samples were taken at Site 3 or Site 4. Per reference (a), background samples for each medium of concern should be collected to adequately compare them to site-specific samples.

Recommendation: Provide information concerning where the background samples were taken. Provide background sample location(s) on the Site 3 and Site 4 maps, if applicable, or provide justification for not taking background samples. Discuss how the background concentrations will be used in the baseline risk assessment. If background samples have already been collected, the work plan should indicate that the proposed field sampling methods and analytical methods will be the same. If they are different the work plan should discuss how the uncertainties associated with the data will be addressed in the health risk assessment.

2. Page 4-8, "Groundwater Sampling Techniques"

Comment: The text does not say whether groundwater samples taken will be filtered, unfiltered, or both. We strongly recommend the collection of both filtered and unfiltered groundwater samples. EPA guidance, such as reference (a), states that "unfiltered groundwater data should be used to estimate exposure concentrations."

Recommendation: We recommend collecting both unfiltered and filtered groundwater samples. State whether filtered and/or unfiltered groundwater samples will be taken and specifically how the groundwater sampling results, filtered or unfiltered, will be used in the risk assessment.

3. Figure 4-1, "Proposed Monitoring Well and Soil Sample Locations, Site 3, Landfill C"
Figure 4-2, "Proposed Monitoring Well and Soil Sample Locations, Site 4, Landfill D"

Comments:

a. Both of the figures show the locations of proposed composite soil samples. The Work Plan does not state why the composite samples are being collected or if they will be used in the health risk assessment. Page 1-1 of "The Field Sampling Plan" states that composite samples will be collected from each of the sites at locations "representative of background conditions." If the composite sample locations depicted on Figures 4-1 and 4-2 are the selected background soil sample locations, we do not agree. The composite sample locations appear to be up-gradient, down-gradient, and in the center of each site.

b. We agree that composite samples are useful to assess the presence or absence of contamination. If composite samples are to be used to determine background concentrations the samples should be separated into specific media such as surface and subsurface samples. Collecting composite samples from 0 to 3 feet may not be representative of actual site conditions.

Recommendation: The sampling plan should justify the use of composite soil samples for determining surface and subsurface soil background concentrations. If the composite sample locations shown on the figures are being used to determine the background soil concentrations, either justify the sites selected, or select new sample locations.

4. Figure 4-3, "Proposed Surface Water and Sediment Sampling Locations, Site 3, Landfill C"

Comment: The figure shows the proposed locations of the sediment and surface water samples. Neither the text, nor the figure gives a rationale for the selected locations, such as a ditch, stream, pond water, or surface water flow direction. Background sampling locations are not shown on any of the figures. This information should be somewhere in the sampling and analysis plan.

Recommendation: Provide the rationales for the proposed sampling locations. The text should clearly state the reason(s) why sample locations are selected. Show the location(s) of the background samples.

5. Page 4-18 and 4-19, "Baseline Human Health Risk Assessment"

Comments:

a. The text states that the 95 percent upper confidence limit (95% UCL) of the mean will be used as the exposure concentration. We support the use of the average as well as the 95% UCL for comparative purposes.

b. The text on page 4-19 states that the risk assessment will be used to determine whether remediation is necessary. The decision criteria are not included.

Recommendations:

a. For comparative purposes, calculate exposure concentrations using both the 95% UCL and the average.

b. Discuss the decision criteria to be used in determining whether or not remediation will be required.

FROM: _____
(YOUR NAME/COMMAND)

TO: NAVENVIRHLTHCEN, ENVIRONMENTAL PROGRAMS

FAX: COM: (757) 444-7261/DSN: 564-7261

MEDICAL/HEALTH COMMENTS - YOUR VIEW

Please help us improve our review process by indicating the extent to which you agree or disagree with the comments we provided your activity.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. "Value added" to IR/BRAC process?	1	2	3	4	5
2. Received in a timely manner?	1	2	3	4	5
3. High level of technical expertise?	1	2	3	4	5
4. Very useful to the RPM?	1	2	3	4	5
5. Contractor incorporated comments?	1	2	3	4	5
6. Easily readable/useful format?	1	2	3	4	5
7. Overall review was of high quality?	1	2	3	4	5
8. NAVENVIRHLTHCEN was easily accessible?	1	2	3	4	5
9. NAVENVIRHLTHCEN input during scoping or workplan development would be "value added"?	1	2	3	4	5
10. Added involvement in IR/BRAC document needed?	1	2	3	4	5

Please return by fax using the box provided at the top of this page. If you have any other comments, please list them below or call Mr. David McConaughy, Head, Health/Risk Assessment Department, at (757) 363-5557, DSN 864 at any time to discuss your viewpoint. As our customer, your comments and suggestions of how we can improve our services to you are important!