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U S NAVY RESPONSE TO SOUTH CAROLINA DEPARTMENT OF HEALTH AND  
ENVIRONMENTAL CONTROL COMMENTS TO CORRECTIVE MEASURES STUDY REPORT  
AREA OF CONCERN 597 (AOC 597) ZONE E CNC CHARLESTON SC  
5/13/2003  
CH2M HILL

AOC 597 Zone E  
RTC CMS Report (Rφ)

# CH2MHILL TRANSMITTAL

**To:** Jerry Stamps  
South Carolina Department of Health  
and Environmental Control  
Bureau of Land and Waste  
Management  
2600 Bull Street  
Columbia, SC 29201

**From:** Sam Naik/CH2M-Jones  
(770) 604-9182 ext. 255

**Date:** May 13, 2003

**Re:** CH2M-Jones' Responses to Comments by SCDHEC regarding the *CMS Report, AOC 597, Zone E, Revision 0*

Quantity	Description
4	CH2M-Jones' Responses to Comments by SCDHEC regarding the <i>CMS Report, AOC 597, Zone E, Revision 0</i> – Originally Submitted on January 14, 2003

If material received is not as listed, please notify us at once.

Remarks:

Copy To:

Dann Spariosu/USEPA, w/att  
Rob Harrell/Navy, w/att  
Gary Foster/CH2M-Jones, w/att

### **Engineering Comments Prepared by Jerry Stamps**

1. Section 5.2, Alternative 2: Land Use Controls

This section states that the monitoring required to ensure the effectiveness of the Land Use Controls (LUCs) will only be performed for 30 years. The text should clarify that this monitoring will be required for as long as LUCs remain necessary.

**CH2M-Jones Response:**

*Comment noted. Additional text will be added to the Revision 1 of this report to include this clarification.*

2. Section 6.0, Recommended Corrective Measure Alternative

The Department understands that engineering controls (i.e., pavement) will be maintained in this area. This control should be documented in the Interim Measure Work Plan (IMWP) that is currently under development to document interim land use controls. This IMWP is currently planned to be submitted concurrently with the revised FOSET.

**CH2M-Jones Response:**

*Comment noted. Additional text will be added to the IMWP mentioned above.*



1 weeks, and the benefits will be immediate. There is ample offsite capacity for disposal (and  
2 treatment, if required) of the contaminated soil.

### 3 **5.1.9 Other Factors (e) Cost**

4 Appendix A presents the overall cost estimate for implementing this remedy. These costs  
5 reflect soil removal based on available RFI sample results, plus removal and replacement of  
6 loading dock and pavement. A scope contingency (20 percent) is added to cover minor  
7 additional excavation that may be required per results of confirmation testing. In summary,  
8 the costs include the following:

- 9 • Remove soil in areas at each occurrence of MCS exceedance.
- 10 • Perform confirmation tests in each area to confirm compliance with MCS.
- 11 • Apply 20 percent contingency for additional scope that may be required based on  
12 compliance tests.
- 13 • Maintain LUCs applied as part of the Zone E LUCs for a 30-year period.

14 Using the assumptions listed above, the total present value of Alternative 1 is \$53,000.

## 15 **5.2 Alternative 2: Land Use Controls**

16 The following assumptions were made for Alternative 2:

- 17 • A basewide LUCIP will be developed for the CNC. The plan will allow for restrictions  
18 on the use of land at AOC 597 and other areas, and will be developed outside the scope  
19 of this CMS.
- 20 • Periodic monitoring will be performed for 30 years. The monitoring will consist of an  
21 annual site visit to confirm that site use(s) are consistent with the LUCIP. The 30-year  
22 period is used to calculate the present worth cost for this alternative, but it is assumed  
23 that LUCs will be maintained and monitored as long as required. The longer monitoring  
24 cost will not significantly alter the present worth cost of this alternative.

### 25 **5.2.1 Protection of Human Health and the Environment**

26 This alternative is effective at protecting human health because it restricts future use of the  
27 site that would be inappropriate for the MCS exceedances at the site.

### 28 **5.2.2 Attain MCS**

29 This alternative would not achieve the MCS for PCBs.

### 30 **5.2.3 Control the Source of Releases**

31 There are no ongoing sources of releases at AOC 597, therefore this issue is not applicable.

1 **5.2.4 Compliance with Applicable Standards for the Management of Generated**  
2 **Wastes**

3 Alternative 2 does not generate any wastes that would require special management.

4 **5.2.5 Other Factors (a) Long-term Reliability and Effectiveness**

5 This alternative provides some level of protection that has long-term reliability and  
6 effectiveness. The risk of failure is low, provided the LUCIP is enforced by the responsible  
7 entity. If LUCs were not enforced, unpermitted use of the site may result in human exposure  
8 to PCBs above the MCS.

9 **5.2.6 Other Factors (b) Reduction in the Toxicity, Mobility, or Volume of Wastes**

10 This alternative involves no treatment and does not reduce the toxicity, mobility, or volume  
11 of contaminated soil at AOC 597.

12 **5.2.7 Other Factors (c) Short-term Effectiveness**

13 The Navy retains ownership and control of the site use until LUCs are implemented. This  
14 alternative does not involve any site activities, thus, no short-term risks are created.

15 **5.2.8 Other Factors (d) Implementability**

16 Alternative 2 is relatively easy to implement since it only requires the development of LUCs  
17 and an appropriate monitoring program.

18 **5.2.9 Other Factors (e) Cost**

19 Alternative 2 is not costly to implement since it requires no construction of treatment  
20 facilities or disposal of wastes. The cost for this alternative is for administrative/legal  
21 services and periodic monitoring/review for 30 years. Longer monitoring would likely be  
22 required, but its cost impact to the present value of this alternative is minimal.

23 Using the assumptions described earlier, the total present value of Alternative 2 is \$20,000.

24 **5.3 Comparative Ranking of Corrective Measure Alternatives**

25 The overall ability of each corrective measure alternative to meet the evaluation criteria is  
26 described above. In Table 5-1 below, a comparative evaluation of the degree to which each  
27 alternative meets a particular criteria is presented. Alternative 2 (LUCs) is the preferred  
28 alternative. It provides a protective and reliable remedy at a lower cost.