

N61165.AR.004638  
CNC CHARLESTON  
5090.3a

LETTER FROM SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL  
CONTROL APPROVING INTERIM MEASURE WORK PLAN SOLID WASTE MANAGEMENT  
UNIT 166 (SWMU 166) ZONE K CNC CHARLESTON SC

*2/26/2002*

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL



2600 Bull Street  
Columbia, SC 29201-1708

February 26, 2002

Ms. Amy Daniell  
Caretaker Site Office  
Charleston Naval Complex  
CSO 1895 Avenue F  
North Charleston, SC 29405

RE: Interim Measure Work Plan, SWMU 166, Zone K  
Charleston Naval Complex (CNC)  
SC0 170 022 560

Dear Ms. Daniell:

The Corrective Action Engineering and the Hydrogeology Sections of the South Carolina Department of Health and Environmental Control (Department) have completed the review of the above referenced document, which was received on January 17, 2002. This review was based upon applicable State and Federal Regulations, and the CNC Hazardous Waste Permit, effective September 17, 1998. The Department hereby approves the above referenced document. However, the attached concerns must be addressed. Please note that the attached concerns were discussed with Mr. Sam Naik of CH2M-Jones via a telephone conversation held on February 20, 2002.

Thank you for your cooperation in this matter. If you have any questions or concerns, please contact Jerry Stamps at (803) 896-4285.

Sincerely,

David Scaturo, P.E., P.G., Manager  
Corrective Action Engineering Section  
Division of Waste Management  
Bureau of Land and Waste Management

Attachment:

Memorandum from Paul Bergstrand, P.G., to Jerry Stamps dated February 26, 2002.

cc: Tony Hunt, PE, SOUTHDIV  
Rob Harrell, PE, SOUTHDIV  
Dean Williamson, PE, CH2M-Jones  
Paul Bergstrand, P.G., Hydrogeology

Rick Richter, Trident EQC District  
Dann Spariosu, PhD, EPA Region 4  
Gary Foster, PE, CH2M-Jones

ENGINEERING COMMENTS  
Prepared by Jerry Stamps  
Charleston Naval Complex (CNC)  
February 26, 2002

---

1. **General**

The Department has not yet had the opportunity to review the RFIRA for SWMU 166. Please be advised that additional investigation may be necessary based upon review of the RFIRA.

2. **General**

The Department is aware that CH2M-Jones intends to conduct a pilot test utilizing the Zero-Valent Iron injection technology at Target Treatment Area 4 to determine the proper amount of iron necessary for treatment, the zone of influence of the injections, etc. The Department is also aware that a design addendum will be developed based upon the results of the pilot study. As discussed with Mr. Sam Naik, the design addendum will be submitted to the Department for review.

3. **General**

Prior to the full-scale implementation of the interim measure, the Navy must confer with the Department concerning the need and location of additional wells necessary to evaluate the effectiveness of the interim measure and to evaluate if the injections are causing contaminant migration. Enough time should be allotted prior to full-scale implementation to discuss this topic thoroughly.

4. **Section 3.2, Page 3-2**

This section states that the goal of this interim measure is to obtain 95% reduction in the average TCE concentration for each of the Target Treatment Areas (TTAs). Please incorporate a table identifying the numeric values of the treatment goals for each of the TTAs.

5. **Section 3.3.3, Page 3-5**

Figure 3-9 is referenced in this section; however, the figure is missing from the document. Please include this figure.

6. **Section 3.5.1, Page 3-9**

The text in this section should be revised to include VOC analysis for the baseline sampling. The Department understands that the baseline sampling for the pilot test was completed which included VOC analysis. This comment is intended as a point of clarification.

7. **Section 3.5.3, Page 3-9**

The text should be revised to state that VOC analysis will be included in the post-injection groundwater monitoring. The text should be consistent with the parameters identified in Table 3-1.

8. **Section 3.9, Page 3-17**

This section states that groundwater sampling will occur in select wells every 3 months during the first year following the conclusion of the full-scale remediation. The Navy must confer with the Department when selecting the wells to be sampled as part of the post-injection monitoring.