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LETTER FROM SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL
CONTROL DENYING NO FURTHER ACTION REQUEST FOR SOLID WASTE
MANAGEMENT UNIT 42 (SWMU 42) AND AREA OF CONCERN 505 (AOC 505) ZONE A CNC
CHARLESTON SC

2/28/2002

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL



2600 Bull Street
Columbia, SC 29201-1708

February 28, 2002

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Ms. Amy Daniell, Environmental Engineer
Caretaker Site Office 1895, Avenue F
North Charleston, SC 29405

Re: Denial of NFA Request
CMS Work Plan/IM Completion Report
SWMU 42/AOC 505, Zone A, dated December 2001
Charleston Naval Complex
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 reference document, which was received on December 28, 2001. The review was based on applicable State and Federal Regulations, and the Charleston Naval Complex Hazardous Waste Permit (Permit), effective September 17, 1998.

The Department believes that further assessment of groundwater is necessary and that the Navy's request for No Further Action (NFA) is premature. The Department's comments are included as attachments.

Please contact me at (803) 896-4182 or Mansour Malik at (803) 896-4169 to discuss the comments.

Sincerely,

Susan Peterson, Engineer Associate
Corrective Action Engineering Section
Bureau of Land and Waste Management

cc: Susan Peterson, Mansour Malik, SCDHEC
Rick Richter, Trident EQC
Dean Williamson, Gary Foster CH2M-Hill
Dann Spariosu, EPA Region IV
Tony Hunt, Rob Harrell, SOUTHDIV



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**CMS Work Plan/IM Completion Report
SWMU 42/AOC 505, Zone A
Dated December 2001**

Comments

Prepared by Susan Peterson, February 28, 2002

The Department has issued comments regarding the need for additional groundwater assessment of VOCs (Zone A RFI report, the CMS WP for Zone A, and most recently for the 2001 IM WP at SWMU 42/AOC 505). The Department's inclusion of a groundwater comment (on an IM WP whose focus was the excavation of arsenic contaminated soil) was meant to serve as a reminder that the subsequent CMS WP/IM Completion Report should address this issue. CH2M-Jones initial response was to address the groundwater assessment in the CMS phase of work, after the IM had been completed. CH2M-Jones later altered their position, stating that they did not believe a CMS for groundwater was warranted.

There are a number of reasons why the Department believes that additional groundwater assessment is warranted at SWMU 42/AOC 505. These include:

- Possible VOC plume. 88 ug/l of cis-1,2-DCE was present in well A042GW02D. This well is the only deep monitoring well at this site and has only been sampled once. There is not sufficient evidence to refute the possibility that this result may be part of a VOC plume.
- Likely connection to site operations. Upon review of aerial photographs, it appears that a portion of SWMU 42/AOC 505 was used as a general waste storage area. Cis-1,2-DCE is a degradation product of PCE, a substance frequently used, thus stored at military installations.
- Discussion of possible source. The Department disagrees with CH2M-Jones's conclusion that the VOCs reported at SWMU 42 are from SWMU 39. Reiteration of a prior Departmental comment is as follows: "given that monitoring well 42-GW001 is separated from SWMU 39 contamination by a groundwater trough, the vertical gradient in this Zone is positive, and low positive TCE detections in four of four upgradient grid soil samples were not included in the RFI evaluation, makes considering the SWMU 39 VOC plume as the source difficult."
- Evaluation of deep groundwater. The detection of VOCs lower than their respective mcls in shallow groundwater wells does not preclude the possibility that VOCs would be detected in deeper groundwater. Given the nature of VOCs in soil,

especially sandy soil, it is likely that analysis of deeper groundwater would show VOC concentrations. The results of deep well A042GW02D substantiate that.

The Department concurs that CH2M-Jones has met their objective of the 2001 Soil Removal IM WP. Arsenic-contaminated soil has been excavated to an extent that would allow for unrestricted land use.

The Department would like an opportunity to discuss concerns relating to groundwater contamination and discuss the measures necessary to resolve them.