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TRANSMITTAL FOR U S EPA REGION IV COMMENTS ON REMEDIAL FACILITY
INVESTIGATION REPORT ADDENDUM FOR AREA OF CONCERN 580 (AOC 580)
ZONE E CNC CHARLESTON SC
5/20/2002
U S EPA REGION IV

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY



REGION 4

61 Forsyth Street SW
Atlanta, Georgia 30303-3104

May 20, 2002

4WD-FFB

Mr. M.A. Hunt
BRAC Environmental Coordinator
Code 18710
Department of the Navy
Southern Division, NAVFAC
2155 Eagle Drive
North Charleston, South Carolina 29419-9010

SUBJ: AOC 580 Remedial Facility Investigation Addendum
Charleston Naval Complex (CNC)
SCO 170 022 560

Dear Mr. Hunt:

The Environmental Protection Agency, Region 4 (EPA) has reviewed the above referenced document. Please find the comments enclosed.

Please contact me at (404) 562-8552 or spariosu.dann@epa.gov with any questions or responses regarding the enclosed comments.

Sincerely,

Dann J. Spariosu,

Remedial Project

Ph.D.

Manager

Enclosure

cc: D. Scaturo, SCDHEC
D. Williamson, CH2M-Jones
G. Foster (email), CH2M-Jones
J. Stamps (email), SCDHEC

**EPA Comments on the
RFI REPORT ADDENDUM
Area of Concern 580, Zone E
Charleston Naval Complex
North Charleston, SC**

GENERAL COMMENTS

1. There is toxicity assessment discussion presented for several of the COPCs. The discussion primarily indicates that the potentially affected organ systems are unique to that contaminant, and, therefore, adjusting the RBC value to an HI=0.1 is not necessary. A summary table that includes all of the COPCs and their target organs would be helpful in evaluating this discussion.

SPECIFIC COMMENTS

Page 5-3, Section 5.2.2. The text states, "The Zone E background range for arsenic in subsurface soils is 0.83 mg/kg to 26 mg/kg and the SSL value is 14.5 mg/kg ... Thus, the applicable COPC screening criteria is the background concentration range." The logic of this statement is not clear. Each of the screening criterion is applicable. In addition, there is no presentation of the RBC screening values in the arsenic discussion as there is for all other constituents. The section should include a presentation of the RBC screening values, and the existing screening criteria discussion should be clarified.

Page 5-5, Section 5.2.4. The text presents the Zone E background range for lead as 1 mg/kg to 400 mg/kg. It appears coincidental that the maximum detected value is the same as the residential screening value. The maximum background concentration should be confirmed. Further, the text indicates that there is a sample location that exceeds background and the industrial screening value (although the report describes the site concentration and the industrial screening value as "consistent"). The text describes the industrial worker-based value developed for CNC as 1218 mg/kg. The source or a reference for this screening value should be provided. The highest site concentration detected is 1240 mg/kg. This concentration may represent a "hot spot" of elevated lead concentrations. It is not clear from the discussion presented if the elevated lead concentration was detected below the asphalt paving, preventing exposure. Discussion regarding the potential exposure to lead at this potential hot spot should be provided in the text.

Page 5-8, Section 5.3.1. The weight of evidence discussion includes a hypothesis that arsenic, iron, and manganese may all be naturally occurring in the deep groundwater due to reducing conditions. It is not clear from the discussion if any physical parameters (e.g., oxidation- reduction potential, pH) have been collected to support the potential for reducing conditions. The additional discussion may not be necessary. The RFIRA report describes deep groundwater arsenic concentrations as "consistent with" and "similar to" background concentrations. However, the data presented in Tables 5-5 and 5-6 seem to show that the arsenic concentrations are within the background range. For clarity, the arsenic concentration could be limited to comparison with background.

Page 5-8, Section 5.4. The text states that there are no COCs under residential or industrial scenarios. The text appears to have adequately addressed the industrial receptor (with the potential limitations noted these comments). However, it is not apparent that the case has been adequately presented for eliminating COPCs for the residential receptors. For example, site concentrations for lead are significantly higher than their residential screening values (e.g., lead) and background screening values at several locations. It is not clear if exposure has been assumed to be limited based upon the presence of asphalt paving over the surface soil. It appears that land use controls may be necessary to prevent future residential exposure to lead at the site.

Table 5-3. The table has inverted the values for the lead screening values. The residential value is listed as 1200 mg/kg, and the industrial screening is listed as 400 mg/kg. The values should be corrected.