2/4/2002 - 01499

February 4, 2002

142506.RI.DF
02-027-SJM

Ms. Mary Cooke
Remedial Project Manager (3HS13)
USEPA Region III
1650 Arch Street
Philadelphia, PA 19103

Subject: Responses to Comments - Draft Supplemental RI for Site 13, NAB Little Creek
Contract N62470-95-D-6007
Navy CLEAN II Program, Contract Task Order 54

Dear Ms. Cooke:

The following are the Navy's responses to comments submitted by EPA Region III on the above-referenced document. To help ease your review of these responses, each comment is reiterated, followed by the response.

Comment 1. *The Executive Summary page ES-4. The report states that the chlorinated VOCs do not appears to have a continuing source, but appears to moving through the groundwater as a contaminant "slug"; however this conclusion is based on only two rounds of data. Discuss why the limited amount of data. Also, discuss whether or not the behavior of the VOCs plume have changed since the last round of samples in 1998 or continue to be the same as reported in the SRI.*

Response to Comment 1: It is agreed that another round of data is warranted to better understand the dynamics of the Site 13 groundwater plume. Therefore a third round of groundwater samples was collected in July 2001. This data was presented to the Little Creek partnering team in October 2001. The data did not reflect conditions that would significantly change the results and conclusions of the RI, or the risks calculated in the HHRA or ERA. The team agreed at that time that the recent data would be presented in the draft FS report rather than to revise the RI with the new data.

With regard to the VOC plume, the 2001 data shows that the maximum VOC concentrations continue to dimish and are now in the 50 ug/L range. There is no sign of the high concentrations (1,793 ug/L of total VOCs) that were initially detected in well 13MW06S in 1995.

Comment 2. *The figure 3-3 for SRI Geoprobe Groundwater Sample shows the Geoprobe LS13-GP214 located in two different places. The figure should be reviewed.*

Response to Comment 2: The geoprobe groundwater sample location collected on the north side of Building 3503 should be identified as LS13-GP210 in Figure 3-3 rather than LS13GP214. This figure will be revised in the final SRI.

Comment 3. *The Supplemental Remedial Investigation (SRI) Report addresses the first SRI (1995) and the second SRI (1998). The figure 4-12 shows that the groundwater elevations were measured at site 13 on January 2001, but the monitoring wells were not sampled. There is no sample data in the SRI report regarding the current conditions of the PCP and VOC plumes. The SRI does not discuss why the groundwater wells at site 13 were not sample during this investigation or why it was necessary to collect water levels measurements. Revise the SRI to include a discussion for including water level measurement event but not the groundwater-sampling event. The report also should discuss why there is a sample data gap since 1998 to the present.*

Response to Comment 3: Water levels were collected from the full set on monitoring wells at Site 13 on three occasions (once in September, once in January, and again in April) in order to determine if flow directions varied seasonally. Water levels are often measured more frequently than contaminant concentrations, especially when there are questions as to groundwater flow directions.

It is recognized that a third round of groundwater data would be useful to better characterize current site conditions. This has been done as discussed in the response to Comment 1.

Comment 4. *Section 8.1.3 page 8-3 Fate and Transport of contamination. The text states that both the plume of PCP and the plume of chlorinated VOCs appears to be migrating to the south west toward a leaking sanitary sewer line which bounds the plume on the west. Discharge of water from the aquifer to the sewer line is occurring at the rate of approximately 16 GPM, which may be enough to provide hydraulic control of the aquifer and prevent migration of contaminants beyond the sewer line. Discuss the possibility that once the contamination arrives at the sewer lines certain contaminant migration would be occurring throughout the foundation of the pipes. If the pipe's foundation is acting as a pathway for the contamination at site 13, is it possible that the wells LS-13MW20T and LS-13MW17T are not detecting it?*

Response to Comment 4: It is clear that the sanitary sewer pipes themselves are acting as conduits for goundwater contaminant migration. It is possible that the bedding (foundation) of the sewer pipes can also be acting as conduits if the sewer bedding has a greater hydraulic conductivity than the surrounding aquifer material. The hydraulic conductivity for the aquifer material is relatively high (110 ft/day or 1X10-2 cm/sec) and is indicative of a clean sand. The pipe bedding is unlikely to have a conductivity that is much greater than this.

The existing monitoring well network (specifically wells 13MW20T and 13MW17T as noted above) would not be able to determine if contaminant migration is occuring through the bedding of the sewer line trunk line along Gator Boulevard.

Elimination of this migration pathway is done on a qualitative rather than quantitative basis. Section 8.1.3 of the SRI will be revised to discuss this.

Please call me to discuss any questions.

Sincerely,

CH2M HILL

Scott J. MacEwen
Project Manager

c: Dawn Hayes/LANTDIV
Randy Sawyer/ Yorktown NWS
Robert Weld/Virginia DEQ
Matt Louth/CH2M HILL
Paul Landin/CH2M HILL
file