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CERTIFIED MAIL RETURN RECEIPT REQUESTED

North Carolina Department of Environment,
Health, and Natural Resources
Attn: Mr. Peter Burger
Post Office Box 27687
401 Oberlin Road
Raleigh, North Carolina 27611

Re: MCB Camp Lejeune; Responses to North Carolina DEHNR
Comments on 30 Percent Design Submittal

Dear Mr. Burger:

This letter addresses comments from the State of North Carolina Department of Environment, Health, and Natural Resources (NC DEHNR), Division of Solid Waste Management, on Draft 30 Percent Design Basis of Design Report for the referenced project. These comments were contained in a letter from Mr. E. Peter Burger, P.E., dated April 7, 1993; and were discussed at a meeting with LANTDIV, USEPA, NC DEHNR, and Baker on March 23, 1992. These comments have been incorporated into the 90 percent design submittal.

Response to General Comment No.1

The groundwater treatment system design was based on the maximum concentrations of the VOCs detected. A table was included in the 90 percent design submittal that lists the minimum, average, 95th percentile, and maximum concentrations detected from a sampling data collected in January 1991. The table lists the estimated effluent concentrations from a four tray air stripper at maximum influent concentrations, based on computer modeling of the four tray air stripper.

Response to General Comment No.2

The 90 percent design submittal package includes a polymer addition system to aid in the flocculation of the suspended metals. The oil water separator will be followed by a surge tank and sand filters for the removal of suspended metals.

Response to General Comment No.3

The 90 percent design submittal package includes two liquid phase carbon polishing units as the final treatment process at each site. These units have been designed with bypass piping.

Response to General Comment No.4

Baker will review the results of the planned sampling at Operable Unit No. 1 when this data is available, and will consider any design revisions which may be necessary due to this additional data.

Response to General Comment No.5

Baker has reviewed pump test data and well influent calculations for the Site 22 product recovery system (O'Brien & Gere, January 1990). This report documented similar pump test results to those obtained during the recent aquifer test, with pumping rates from 2 to 3 gpm obtained from a 6 inch diameter well. O'Brien & Gere calculated a radius of influence of 300 to 400 feet. Based on this information, and after considering potential well configurations, Baker is recommending that the recovery wells be placed 400 feet apart (200 foot radius) with sufficient overlapping of the well capture zones.

Response to General Comment No.6

The 90 percent design submittal has been designed to treat the maximum contaminants detected to a level that meets NC groundwater standards. With the addition of a polymer feed system, a larger air stripper, and the addition of liquid phase carbon polishing, the system should meet NC groundwater standards.

Response to Specific Comment No.1 Page 2-5, 2nd Paragraph

A discussion of the vinyl chloride that was detected during the treatability study will be included in the final design submittal. The 90 percent design submittal considered the removal of vinyl chloride in the air stripper design.

Response to Specific Comment No.2 Page 3-5, Table 3-3

The increase in the lead concentration which was dosed with 2 mg/l of polymer was probably due to laboratory testing variances. However, the increase may be due to a reaction between the lead in the sample and the polymer. The polymer used in the actual chemical feed system will be selected based on testing conducted prior to and during system start-up.

Response to Specific Comment No.3 Page 4-2, Table 4-1

Table 4-1 has been revised to include a polymer addition, flocculation, and settling system for metals removal; and two liquid phase carbon adsorption units with bypass piping.

Response to Specific Comment No.4 Page 4-4, Section 4.3

The 90 percent design drawings show the effluent from the north treatment system being discharged to a 10-inch sewer on Michael Street, and the effluent from the south system being discharged to a 15-inch sewer at the south end of Michael Street.

Any questions concerning these responses should be directed to Ms. Linda Berry, P.E., at (804) 445-8637.

Sincerely,

L. A. BOUCHER, P.E.
Head
Installation Restoration Section
(South)
Environmental Programs Branch
Environmental Quality Division
By direction of the Commander

Copy to:

EPA Region IV (Ms. Michelle Glenn)
MCB Camp Lejeune (Mr. Neal Paul)
Baker Environmental (Mr. Ray Wattras, Mr. Don Joiner)

Blind copy to:

Baker Environmental
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