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(804) 445-8637

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From: Commander, Atlantic Division, Naval Facilities Engineering Command
To: Commanding General, Marine Corps Base, Camp Lejeune (Attn: Mr. Neal Paul, AC/S, Environmental Management, Building 1)

Subj: MCB CAMP LEJEUNE; HADNOT POINT INDUSTRIAL AREA-DRAFT TREATABILITY STUDY, REMEDIAL ACTION WORK PLAN, DRAFT 30% DESIGN SUBMITTAL

Encl: (1) Meeting Minutes of 23 Mar 93

1. Enclosure (1) is the Meeting Minutes of the 23 March 1993 meeting with the U.S. Environmental Protection Agency, Region IV (EPA), and the North Carolina Department of the Environment, Health, and Natural Resources (DEHNR). These minutes summarize the discussions pertaining to the 30% design submittal.

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

L. A. BOUCHER
By direction

Copy to: (w/encl)
LANTNAVFACENGCOM (L. Berry, D. Cotnoir, K. Clark)
DEHNR (P. Burger, M. Kelly, J. Butler)
DEM (D. Adkins, C. Yirker, R. Jones, D. Safirt, C. Sullins)
EPA (M. Glenn, J. Herndon, J. Harrington)
Baker Environmental (S. Kretschman, D. Joiner)

Blind copy to:
1823 (LGB) (2 copies w/encl)
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MEETING MINUTES
March 23, 1993
MCB Camp Lejeune, Marine Corps Base Hadnot Point Industrial Area (HPIA)
Shallow Aquifer Remediation
CTO-0134
MCB Camp Lejeune, North Carolina

A meeting was conducted on March 23, 1993 at the State of North Carolina Department of Environment, Health, and Natural Resources (DEHNR) office located in Raleigh, North Carolina. The meeting was conducted to discuss the following: (1) Draft Treatability Study; (2) Remedial Action Work Plan for the Hadnot Point Industrial Area Shallow Aquifer; and (3) Draft 30 Percent Design Submittal Basis of Design Report for the Hadnot Point Industrial Area Shallow Aquifer Ground Water Treatment System.

The following representatives of LANTDIV, DEHNR, EPA and Baker Environmental, Inc. (Baker) were present:

Ms. Linda Berry, LANTDIV
Mr. Dave Cotnoir, LANTDIV
Mr. Ken Clark, LANTDIV
Mr. Peter Burger, DEHNR, Superfund
Mr. Mike Kelly, DEHNR, Solid Waste
Mr. Jack Butler, DEHNR, Superfund
Mr. Dave Adkins, DEM, Water Quality
Mr. Charles Yirker, DEM, Air Quality
Mr. Randy Jones, DEM, Water Quality, Permits and Engineering
Mr. Don Safirt, DEM, Water Quality, Permits and Engineering
Ms. Coleen H. Sullins, DEM, Water Quality, Permits and Engineering
Ms. Michelle Glenn, EPA
Ms. Jennifer Herndon, EPA
Mr. Jack Harrington, EPA Contractor
Mr. Steve Kretschman, Baker
Mr. Don Joiner, Baker

Meeting Minutes - March 23, 1993

The following remarks summarize the discussions and conclusions regarding DEHNR, DEM, and EPA comments to the reports referenced above:

- The polymer should be included in the treatment system. Although the treatability study indicated that the metals in the groundwater associated with the suspended solids were removed with gravity settling, adding polymer to the influent provided increased solids removal over time.

- The influent concentrations of the Dichloroethene (DCE) and Trichloroethene (TCE) in the groundwater were of several magnitudes lower than the peak levels

found in previous studies have indicated (January 1991). DEHNR and EPA expressed concern that the treatability study did not use groundwater typical of the shallow aquifer. LANTDIV and Baker explained that the test well was located 5 feet from the well that contained the high peaks of DCE and TCE levels in the Jan. 1991 sampling. However, the subsurface geology of the local area where the well was drilled has not historically produced homogeneous groundwater flows results throughout the course of previous field investigations.

- All groundwater data available will be used in sizing the air stripper. The air stripper will be sized using the mean of the data. To treat any peaks that may be encountered during actual remediation of the shallow groundwater at HPIA, a carbon filter will be put in the treatment train after the air stripper; however it will be turned on only when the treated groundwater from the air stripper contains contaminant levels above groundwater standards for TCE. Monitoring requirements will be determined prior to the 90% submittal.

- Iron fouling of the treatment units is a possibility due to the high levels of iron in the groundwater. The polymer chosen for metals precipitation will remove iron levels to low levels so that the treatment units will be effective.

- DEHNR and EPA agreed to providing written comments no later than one week following the meeting, or March 30, 1993.