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LETTER FROM REGULATORY COMMITTEE REQUESTING INSTALLATION OF
GROUNDWATER MONITORING WELLS PHASE 3 INTERIM MEASURE WORK PLAN
ELECTRICAL RESISTANCE HEATING AREA OF CONCERN 607 (AOC 607) ZONE F CNC
CHARLESTON SC
7/27/2001
CH2MHILL



CH2MHILL

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July 27, 2001

158814.ZF.PR.05

Mr. Mansour Malik
Hydrogeologist
South Carolina Department of Health and Environmental Control
Bureau of Land & Waste Management
Division of Hydrogeology
8901 Farrow Road
Columbia, SC 29203

Subject: Request for the Installation of Groundwater Monitoring Wells
Phase III Interim Measure Work Plan, Electrical Resistance Heating
AOC 607, Zone F
Charleston Naval Complex, North Charleston, South Carolina

Dear Mansour:

On behalf of the U.S. Navy Southern Division Naval Facilities Engineering Command, CH2M-Jones requests the installation of 15 groundwater monitoring wells to evaluate changes in the tetrachloroethene (PCE) source area at AOC 607 during operation of the electrical resistance heating (ERH) system. With the exception of replacement wells 607GW06I and 607GW06D, the monitoring wells will be advanced to the top of the clay unit that lies approximately 8.5 to 13.5 feet below land surface. Replacement monitoring wells 607GW06I and 607GW06D will be advanced through an outer casing set at the top of the existing clay unit to the intermediate and deeper zones of the surficial aquifer above the Ashley Formation.

Because the groundwater will be heated to approximately 100°C, the structural integrity of the existing ten PVC wells (i.e., 607GW006, 607GW011, 607GW014 through 607GW017, 607GW021, 607GW023, 607GW06I, and 607GW06D) within the treatment area will be compromised and rendered unserviceable. As a result, these monitoring wells will be abandoned and replaced. Because of the immediate proximity of the proposed target treatment area, monitoring well 607GW010 will also be abandoned and replaced.

With the exception of monitoring wells 607GW06I and 607GW06D, the existing PVC well casings will be removed, and the well bores will be pressure-grouted to the land surface with cement grout. Wells 607GW06I and 607GW06D will be overdrilled and pressure-grouted to the land surface with cement grout. The well abandonment will be performed in

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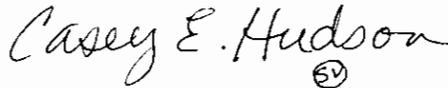
accordance with the South Carolina Well Standards and Regulations (R.61-71), including submittal of Water Well Record Form HDI (9-77).

The wells will be replaced with new wells in the same locations, and will be constructed of stainless steel to withstand the elevated temperatures generated during ERH operation. In addition, four additional proposed monitoring wells will be installed within the target treatment area and are identified as 607GW025, and 607GW027 through 607GW029. Figure 1-1 presents the locations of the 11 existing and four proposed monitoring wells. Table 1-1 presents the required detailed information for monitoring well installation approval.

CH2M-Jones has scheduled to complete this work in August 2001. If you have any questions, comments, or require additional information please do not hesitate to contact us.

Sincerely,

CH2M HILL

Handwritten signature of Casey E. Hudson in cursive, with a small circular mark containing the number 25 below the signature.

Casey E. Hudson, P.E.
Project Engineer
(407) 423-0030 ext. 251

enclosures

cc: Paul Bergstrand, P.G./SCDHEC
Tony Hunt, P.E./SOUTHDIV
Rob Harrell/SOUTHDIV
Dean Williamson, P.E./CH2M HILL/GNV
Tom Beisel, P.G./CH2M HILL/ATL

TABLE 1-1
Monitoring Well Installation Information Summary
AOC 607, Zone F, Charleston Naval Complex

Well Identification	Well Diameter (Inner & Outer)	Method of Drilling	Screen Depth (ft bls)	Screen Length (ft)	Grout (Type, Mixture Ratio, etc.)	Flow, (Type, Mixture Ratio, etc.)
607GW006	2-inch (inner)	Hollow Stem Auger	11.5 to 12	5-feet		
607GW061	2-inch (inner) and 4-inch (outer casing)	Mud Rotary	22		Type II flush-bentonite	
607GW06D	2-inch (inner) and 4-inch (outer casing)	Mud Rotary	32		Type II flush-bentonite	
607GW010	2-inch (inner)	Hollow Stem Auger	9.5-foot			Replacement for Existing PVC Well
607GW011	2-inch (inner)	Hollow Stem Auger	10-foot			Monitoring PCE Souce Area
607GW014	2-inch (inner)	DPT	10-foot			Monitoring PCE Souce Area
607GW015	2-inch (inner)	DPT	10-foot			Monitoring PCE Souce Area
607GW016	2-inch (inner)	DPT	9-foot			Monitoring PCE Souce Area
607GW017	2-inch (inner)	DPT	9-foot			Monitoring PCE Souce Area
607GW021	2-inch (inner)	Hollow Stem Auger	10-foot			Monitoring PCE Souce Area
607GW023	2-inch (inner)	Hollow Stem Auger	10-foot			Monitoring PCE Souce Area
607GW025	2-inch (inner)	Hollow Stem Auger	9-foot			Monitoring PCE Souce Area
607GW027	2-inch (inner)	Hollow Stem Auger	10-foot			Monitoring PCE Souce Area
607GW028	2-inch (inner)	DPT	10-foot			Monitoring PCE Souce Area
607GW029	2-inch (inner)	Hollow Stem Auger	9-foot			Monitoring PCE Souce Area

CVOCs - Chlorinated volatile organic compounds

