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MCRD PARRIS ISLAND
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LETTER REGARDING CONTAMINATION CONCERNS RELATED TO CONSTRUCTION AT
SITE 27 EQUIPMENT PARADE DECK AREA AND SITE 55 FIBER OPTIC VAULT AREA
MCRD PARRIS ISLAND SC
11/15/2010
NAVAL FACILITIES ENGINEERING COMMAND SOUTHEAST



DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND SOUTHEAST
JACKSONVILLE, FL 32212-0030

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South Carolina Department of Health and Environmental Control (DHEC)
Attn: Ms. Meredith Amick, PE
Bureau of Land and Waste Management
Corrective Action Engineering Section
2600 Bull Street
Columbia, SC 29201

Dear Ms. Amick:

SUBJECT: MCRD PARRIS ISLAND, SITE 27/55 CONSTRUCTION CONCERNS

MCRD is in the process of constructing a new Motor Transport Maintenance Facility. As we have discussed, this facility is being located in the impacted area of an existing waste site that is being investigated (site 27/55). The construction plan includes removing the top pavement, adding as much as five feet of fill above existing grade, foundation placement, excavation for utility lines and adding asphalt pavement around the buildings.

The purpose of this letter is two-fold; (1) to describe the construction/design measures being taken to minimize exposure to or spreading of the contamination and (2) describe the remediation technologies being considered and their flexibility to be employed after construction of the buildings as necessary.

The construction aspects have been considered and are being executed in a manner that minimizes exposure to and spreading of site contaminants. The particular aspects and associated measures are as follows:

- 1) Foundation related vapor intrusion from ground water is being addressed by installation of a vapor barrier (ASTM D 4397 polyethylene sheeting, minimum 10 mil thickness)
- 2) Foundation breaching of a potential confining clay layer is being avoided by using a mat foundation instead of pilings.
- 3) Excavated soil is not being transported off site, being reused onsite.
- 4) Storm Sewers will be excavated at 6 ft to 6.75 ft below finished grade. Contamination should not be encountered at these depths (i.e. contamination found at 8-10 ft depths).
- 5) Sewer lines will be excavated from 1 to 3 ft below finished grade with the transfer connection being at 8 feet below finished grade. This connection is located near sample point PAI-27-SO-45-A. The sample from this location did not indicate significant contamination in the soil at a depth of 10 feet.

The remedial alternatives being considered can be implemented in the areas not covered by buildings. These alternatives being considered in the Non-Time Critical Removal Action include the following:

- 1) Aggressive fluid/vapor recovery (cone of capture of 10 feet)
- 2) Well skimming (cone of capture 5 feet)
- 3) Well Pumping (cone of capture 10-15 feet)

Based on an evaluation of the soil and ground water data as well as the associated risks, the Navy will propose appropriate action. The construction project does not impede or limit our potential alternatives being considered. If needed, asphalt pavement can be penetrated to install needed wells.

The Department of the Navy (DON) is committed to accomplishing the Team's clean-up goals in both an effective and efficient manner. If you have any questions regarding this submittal, please contact Mr. Charles Cook, PE at (904) 542-6409, email: charles.cook2@navy.mil or myself at (904) 542-6920.

Sincerely,

S. M. REED, PE
Remedial Section Head
South Central Integrated Product Team
By direction of the Commanding Officer