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MCRD PARRIS ISLAND
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U S NAVY RESPONSES TO SOUTH CAROLINA DEPARTMENT OF HEALTH AND
ENVIRONMENTAL CONTROL COMMENTS ON DRAFT REMEDIAL INVESTIGATION WORK
PLAN FOR SITE 45 MCRD PARRIS ISLAND SC
2/1/2001
NAVAL FACILITIES ENGINEERING COMMAND SOUTHERN DIVISION

SOUTH CAROLINA DEPARTMENT HEALTH AND ENVIRONMENTAL CONTROL
COMMENTS ON DRAFT REMEDIAL INVESTIGATION/RCRA
FACILITY INVESTIGATION WORK PLAN SITE/SWMU 45
MCRD PARRIS ISLAND, SC6 170 022 762

1. **Comment:** Section 4.2.1.3, This section states that fluorescence techniques will be performed to identify potential DNAPL if a PID reading greater than 50 ppm is detected. Please describe how the 50 ppm criterion was selected as the first stage in the identification of potential DNAPL presence.

Response: The 50 ppm criteria is based on both field experience and theoretical considerations and is intended to be very conservative. Based on experience at sites in which free floating light petroleum product (e.g. diesel) is present, soil gas concentrations of greater than 1000 ppm are normal. Also, on a theoretical basis, the reported vapor pressure of pure tetrachloroethene at 57°F is approximately 13,000 ppm.

2. **Comment:** Section 5.1, Page 5-1, 2nd paragraph, This section states that the groundwater will not be identified as a pathway of concern in the risk assessment if it is deemed unpotable. Please be advised that all groundwater within the state of South Carolina is classified as a potable drinking water source. Consequently, this pathway must be evaluated in the risk assessment regardless of the turbidity, dissolved solids, TOC, etc.

Response: The South Carolina classification is a promulgated regulation and the site remediation goals will specially address the groundwater classification at the site as such (as an ARAR). However, the risk assessment is based on reasonable uses of the site and should be conducted independent of the state classification. As such, the proposed approach does not conflict with state regulations. Regardless, for this site, the groundwater is expected to be of potable quality, and therefore a human health risk assessment will be conducted for the groundwater medium.

3. **Comment:** Section 5.1, Page 5-1, It is stated that sediment contamination will be modeled based upon partitioning coefficients. Please be advised that it may be necessary to collect actual surface water and sediment samples based upon the results of the groundwater investigation (i.e. if contaminated groundwater is discharging to Ballast Creek).

Response: Based on the distance to the surface water relative to expected groundwater flow and natural attenuation rates, contaminated groundwater is not expected to be discharging into the surface water. The referenced text on page 5-1 is based on an expected computer model output that

will project a maximum chemical concentration at the surface water at some time in the future. If the delineation portion of the study finds that contaminated groundwater is actually discharging to the surface water at this time, then surface water and sediment samples will likely need to be collected.

4. **Comment:** General, Please include a figure identifying the location of Ballast Creek relative to SWMU 45.

Response: A new figure will be added to Section 7.0 showing SWMU 45, the planned locations of SB-11, 12, and 13, and Ballast Creek.

5. **Comment:** Figure 2-1, Please clearly identify the pertinent features such as asphalted areas, grassy areas, etc... This will facilitate the review of the document and potentially reduce the number of comments generated by the Department.

Response: Asphalt areas at the site consist of the roadways and the two areas shown as "Asphalt Parking Lot". Other than the areas shown as buildings, "Above Ground Storage Tanks", and sidewalks adjacent to the road, the balance of the site is grass covered. A figure will be highlighted and provided to SCDHEC for their use.

TABLE RTC, PAGE 1

TABLE RTC, PAGE 2

TABLE RTC, PAGE 3

TABLE RTC, PAGE 4

TABLE RTC PAGE 5