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MCRD PARRIS ISLAND
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U S NAVY RESPONSES TO REGULATOR COMMENTS ON DRAFT PRELIMINARY
ASSESSMENT/SITE INSPECTION WORK PLAN FOR SITE 53 MCRD PARRIS ISLAND SC
8/1/2001
NAVAL FACILITIES ENGINEERING COMMAND SOUTHERN DIVISION

RESPONSES TO US EPA AND SCDHEC COMMENTS
ON THE DRAFT PA/SI WORK PLAN FOR SITE/SWMU 53 MCRD PARRIS ISLAND, SC

US EPA GENERAL COMMENTS:

1. **Comment:** An additional groundwater sampling location north of the dump area is needed to determine upgradient conditions and to allow for definition of a potentiometric surface. It is requested that a method more definitive than visual surveying, such as geophysics, be used to define disturbed areas potentially reflecting subsurface disposal. See specific comments.

Response: The site is located on a relatively small sand island that has very limited upgradient areas. In general, rainfall recharge creates a poorly defined groundwater divide. This poorly defined area encompasses a large portion of the island; therefore, the typical assumption of an upgradient well would not be effective in this area. Furthermore background groundwater conditions have been previously defined for the facility. As discussed during the February 2001 partnering team meeting, a metal detector will be used to investigate the potential for buried metal around the location of the drums at the site.

2. **Comment:** The development and presentation of Data Quality Objectives (DQOs) and the project Quality Assurance Plan (QAP) is inadequate to meet EPA requirements. While the planned data acquisition would seem to correspond to the more evident data needs, the lack of specific DQO problem statements/decision needs makes this difficult to evaluate. Moreover, the quantity and quality of data proposed has not been substantiated. The specific QAP requirements also should reflect the established DQOs.

Response: The Navy has prepared a DQO cross walk table for the Site 53 Work Plan (attached) that is similar to the table prepared for the Site 45 Work Plan.

US EPA SPECIFIC COMMENTS:

3. **Comment:** **Section 1.2, 1st sentence:** Sentence states that the work plan was developed using the data quality objective process. However, the DQO process is not reflected in the referenced Work Plan sections.

Response: The Navy has prepared a DQO Checklist for Site 53 WP (attached) that is similar to the table prepared for the Site 45 Work Plan.

4. **Comment:** **Section 2.1, 2nd paragraph, 4th sentence:** This sentence states that additional material may be buried at the site. This concern is not addressed by the proposed work. It is requested that an EM-31 geophysical investigation be done to determine if buried waste is present.

Response: As discussed during the February 2001 Partnering Team Meeting, buried materials present on the western side of the site consist primarily of construction debris. The site is being investigated primarily due to the presence of drums and asphalt. A magnetic survey will be performed to determine if more metal drums are present in the facility of the existing drums.

5. **Comment:** **Section 2.1, 2nd paragraph, last sentence:** It is unclear that the proposed visual survey will identify all disturbed areas. Relying on visual surveys and aerial photographs alone is not adequate, particularly if subsurface disposal took place over 50 years ago.

Response: As discussed during the February 2001 Partnering Team meeting, the initial investigation at the site will focus the asphalt pile and the partially buried drums. A magnetometer will be used to investigate the potential for additional buried drums.

6. **Comment:** **Section 3.2:** Based on the size of the site and the wide variety of material exposed at the surface, the proposed number of soil samples is inadequate to fully determine the presence or absence of hazardous wastes or their impact on the site media. At a minimum, 6 surface soil and 6 subsurface soil samples should be collected. Additionally, at least 1 background surface soil and subsurface soil should be collected.

Response: As discussed during the February 2001 Partnering Team meeting, six surface soil samples and 3 subsurface soil samples will be collected in the area of the drums and the asphalt pile. The locations will be biased toward areas where contamination is anticipated. Also, based on the results of the magnetometer survey, additional subsurface soil samples may be collected. Background data from investigation of MCRD Parris Island Sites will be used for comparison.

7. **Comment:** Section 3.2: Since the location and extent of the site is not well established, the following steps are needed in the investigation prior to locating and collecting groundwater samples: 1) a geophysical investigation to define the limits of waste; 2) UXO screening for all subsurface penetrations; 3) locating wells in closer proximity to the waste; and, 4) an upgradient groundwater sample should be collected.

Response: Based on the site walk in February 2001, the majority of the waste materials at the site are common construction type debris used to form a level upland storage/staging area. This area was historically used as an asphalt plant. With the possible exception of the asphalt pile and the drums at the site, these materials are unlikely to represent significant risk to human health or the environment. As a result, the environmental investigation at Site 53 will focus on the asphalt pile and the drums. Ordnance, other than potentially small fire arms where not used in this area, and therefore UXO screening is not normally performed at MCRD Parris Island investigations.

As discussed during the February 2001 MCRD Parris Island Partnering Team meeting, two temporary monitoring wells will be moved closer to the asphalt pile and drums. Note that these wells will also be located hydraulically down gradient of the general fill area, and can be used to identify potential contamination migrating from the general fill area. As mentioned in Response to General Comment 1, background groundwater concentrations have been previously defined for MCRD Parris Island.

8. **Comment:** Section 3.2.1, 1st paragraph: PCB and pesticide analysis must be included in the requirements for soil samples. These compounds were known to be used and disposed at MCRD, they are persistent in the environment, and have relatively low mobility. The Work Plan is not clear if these compounds are being included or excluded from the planned analyses.

Response: PCB and pesticide soil analyses are planned for Site 53, see the footnotes in Table 5-1. To clarify the analyte list in Section 3.0, the first paragraph of Section 3.2.1 will be changed as follows: "The soil samples will be analyzed for Target Compound List (TCL) organics that include volatile organic compounds (VOCs), semi-volatile organics (SVOCs), -polychlorinated biphenyls (PCBs) and pesticides, and Target Analyte List ...".

9. **Comment:** Figure 3-1: Once the full extent of the waste is determined, downgradient wells should be moved closer to the waste and an upgradient well should be added.

Response: As discussed during the February 2001 Partnering Team meeting, the investigation will focus on the drums and the asphalt pile at the site. Two temporary monitoring wells will be placed just down gradient (south) of these areas.

10. **Comment: Section 5.2:** On what basis will the subsurface soil sample interval be selected? In the absence of elevated PID readings or other visual indications of contamination, it is recommended that subsurface soil samples be collected directly above the water table.

Response: Agreed. The text will be modified as follows: "...submitted for chemical testing. In the absence of elevated PID readings or other visual indications of contamination, the subsurface soil samples be collected directly above the water table."

11. **Comment: Section 6:** This section, including the referenced information, does not meet EPA Quality Assurance Plan (QAP) requirements. A review of the Master QAP indicates that appropriate generic/sitewide content (e.g., audit and corrective action processes) is included, however, there remains significant project-specific content that is not presented in the project Work Plan.

Response: The Navy has prepared a DQO cross walk table for the Site 53 Work Plan (attached) that is similar to the table for the Site 45 Work Plan.

12. **Comment: Section 8, 1st paragraph:** No "DQO statements" were made.

Response: See comment 11. The first sentence of the chapter will be changed to: "The purpose of this section is to specify frequency of QA/QC samples, bottleware requirements, sample custody and shipment procedures. This section will also cross reference procedures for laboratory QC checks, project record keeping, data management, performance and system audits, corrective actions and training and quality planning."

SCDHEC COMMENTS:

1. **Comment:** **General:** Under the RCRA program, this document would essentially be a combination a SWMU Assessment Report and a Confirmation Sampling Work Plan. Please entitle this document as such.

Response: Agreed. The Work Plan title will be changed to: "Site 53 PA/SI and SWMU 53 Assessment Report and Confirmation Sampling Work Plan".

2. **Comment:** Section 2.1: This section should describe the approximate size of the area in question. Additionally, the approximate dates of operation of the asphalt should be described, if know.

Response: The extent of the disturbed area at Site 53 is approximately 2.5 acres. Visually, this disturbed area is primarily soil and construction type fill materials. Approximately 8 feet below and to the south of the disturbed area are several corroded metal drums that are on the surface and/or are partially buried. These drums are located in an area approximately 20 feet by 20 feet. Also, at the site is a pile of dumped asphalt. This pile is approximately 20 foot by 20 foot and 6 foot high. The drum area and the asphalt pile are the two areas of concern at Site 53. The operational period of the asphalt plant is uncertain, but will be further investigated.

3. **Comment:** Section 2.3: 1st Sentence, Typographical Error. Please remove the redundant "area of".

Response: Agreed, the redundant "area of" will be removed.

4. **Comment:** Section 3.2: The department is in agreement with EPA specific comment #4. Three soil samples will not be adequate to determine if a release has occurred at this site. Additional soil samples will be necessary.

Response: As discussed during the February 2001 Partnering Team meeting, six surface soil samples and 3 subsurface soil samples will be collected in the area of the drums and the asphalt pile. Also, based on the results of the magnetometer survey, additional subsurface soil samples may be collected.

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