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TRANSMITTAL LETTER AND U S EPA REGION IV COMMENTS ON THE DRAFT BASE REALIGNMENT AND CLOSURE TANK MANAGEMENT PLAN CNC CHARLESTON SC
5/10/1996
U S EPA REGION IV

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET, N.E.
ATLANTA, GEORGIA 30365

May 10, 1996

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MAY 13 1996

BUREAU OF DRINKING WATER PROTECTION

4WD-FFB

Tim Mettlen, Hydrogeologist
South Carolina Department of
Health and Environmental Control
Groundwater Protection Division
Bureau of Drinking Water Protection
2600 Bull Street
Columbia, SC 29201

SUBJ: Draft Base Realignment And Closure Tank Management Plan

Dear Mr. Mettlen:

The U.S. Environmental Protection Agency (EPA) has reviewed Naval Base Charleston's March 12, 1996, Draft Base Realignment And Closure (BRAC) Tank Management Plan (TMP). EPA's comments are enclosed. EPA recognizes the lead responsibility of the South Carolina Department of Health and Environmental Control (SCDHEC) in the Underground Storage Tank (UST) Program. However, in consideration of the Community Environmental Response and Facilitation Act (CERFA) and the closure of Naval Base Charleston, EPA maintains an interest in working closely with the investigations and corrective action at Naval Base Charleston.

Please consider EPA's comments in your response to Naval Base Charleston on the subject document. If you have any questions, please call me at (803) 743-9985, or (404) 347-3555, VMX 2061.

Sincerely,

Doyle T. Brittain

Doyle T. Brittain
Senior Remedial Project Manager

Enclosure

cc: Ann Ragan, SCDHEC
John Mason, EPA/UST

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MAY 13 1996

Groundwater Protection
Division

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ENVIRONMENTAL PROTECTION AGENCY COMMENTS ON THE
NAVAL BASE CHARLESTON
BASE REALIGNMENT AND CLOSURE TANK MANAGEMENT PLAN

1. The Tank Management Plan (TMP) is limited to petroleum tanks that are still in service or have not been permanently closed. It is assumed that petroleum tanks which were previously closed complied with appropriate closure requirements. It should also be noted that this TMP does not address hazardous substance underground storage tank (UST) systems which are regulated under the Underground Storage Tank Program.

2. On Page 2-1 is a list of regulatory guidelines and industry documents used in developing the TMP. South Carolina Department of Health and Environmental Control's (SCDHEC's) Risk-Based Corrective Action for Petroleum Releases (June 1995) guidance document should be included in this list and used to develop the definition of excessively contaminated soil and determine how much remediation is needed at individual release sites to protect human health and the environment. The use of SCDHEC's Risk-Based Corrective Action guidance may change how the TMP defines excessively contaminated soil. Presently, the TMP defines excessively contaminated soil as having a photoionization analyzer (PID) reading exceeding 100 Volume parts per million (Vppm). SCDHEC's Risk-Based Corrective Action guidance establishes appropriate corrective actions based on specific chemical constituents' concentration and not on a total petroleum hydrocarbon concentration.

3. On Page 4-1, it is stated that soil samples will be screened by an organic vapor analyzer equipped with a PID. No indication is given as to which PID manufacturer's analyzer would be used. PIDs from various manufacturers will give different meter readings for the same sample. Because it is proposed to use the PID readings to indicate which soils will be excavated, knowing which PID instrument is being used is very important. Readings from one manufacturer's PID could indicate that the soil was excessively contaminated where another manufacturer's PID would indicate that the soil was not. PID readings from HNu, Thermo Environmental Instruments, Inc. and Photovac instruments will have different meter readings for the same sample. This is normal and inherent to the way manufacturers design their instruments.

   If an alternative method, such as immunoassay, is used for determining which soils are excavated, a correlation between the level of contamination with the method results should be established. An immunoassay reading of 100 ppm is not the same as a 100 Vppm reading on a PID.

4. On Page 4-1, it is stated that soil samples will be screened by headspace procedures described in EPA Publication #530/UST-90-003, September 1990, "Field Measurements, Dependable Data When You Need It." The TMP does not mention which of the headspace methods discussed in the EPA publication is to be used. Headspace analysis using the polyethylene bag sampling system will give constant and reliable results. Results from other headspace methods will be controlled by the rate at which volatiles evolve into headspace. Volatilization from the soil into the headspace is by diffusion and hence is matrix controlled. Matrix control depends on: grain size, grain size distribution, adsorption, moisture, sample temperature and time.

5. Section 4.5, Field Investigation, describes the conventional approach to characterizing a release site. The use of expedited site assessment techniques, as described in the provisional Accelerated Site Characterization standard by the American Society for Testing and Materials (PS3-95), should be considered. Direct push technologies, small diameter monitoring wells/points and field analytical methods can give a more timely and detailed analysis of a release site.