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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY - REGION II
290 BROADWAY
NEW YORK, NEW YORK 10007-1866

DEC 6 1995

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

K.W. Martello, Captain, U.S. Navy
Commanding Officer
U.S. Naval Station Roosevelt Roads
TSC 1008 Box 3001
Code NO
FPO AA 34051-3001

Re: RCRA Facility Investigation (RFI) Workplan Addendum 1 for
SWMUs #7 & #8 (Tow Way Fuel Farm) - U.S. Naval Station
Roosevelt Roads
RCRA/HSWA Permit No. PR2170027203

Dear Captain Martello:

The United States Environmental Protection Agency (EPA) Region II has reviewed the RFI Workplan Addendum 1 for SWMUs #7 & #8 (Tow Way Fuel Farm), transmitted on October 4, 1995 by Baker Environmental on behalf of the Navy. EPA has the following comments:

1. There are major discrepancies between Figure 1 and Figure 2 as to several apparent tank locations (and plan view tank cross sections/dimensions). The submitted maps/figures must reflect consistent tank locations and plan view cross sections, especially since the positioning of the Ground Penetrating Radar (GPR) survey areas are based on the tank locations. EPA believes that Figure 1 is the most accurate. Therefore, all areas proposed for GPR survey (subject to the modifications discussed in 4 below) and proposed test trench locations should be displayed on the revised Figure 1, or similar figure/map. In addition, the 3 "known" disposal pits discussed in the text and shown on Figure 4-4 of the September 1995 RFI Work plan should be displayed on the revised Figure 1, or similar figure/map. Also, since the tank locations are critical, and apparent confusion exists as to their precise locations, EPA requests, but will not require, inclusion of an aerial photograph of the Tow Way Fuel Farm to confirm the tank locations and other features.

2. Addendum 1 should be revised to include a table for SWMUs #7 and #8 (similar to Table 4-2 of the September 1995 RFI work plan) listing the media to be sampled, the number of samples, the analytes to be evaluated, and the analytical methods.

3. Section 2.1.2 Shallow Boring Program at SWMU #7:

a) An estimated total depth or specific target depth (such as 14 feet below the water table) should be given for each soil boring.

b) The sample collection program for the shallow borings is not clearly described. Are there any samples other than 1 to 3 feet and possibly 12 to 14 feet below the water table? The Addendum should be modified to clearly state how many samples will be collected in each shallow boring and the intervals to be sampled. Specific language should be used, such as samples will be collected every 3 feet below the water table.

c) In addition, EPA is concerned that in the shallow borings no sampling is planned to investigate possible residual contamination in the vadose zone above the water table. Residual hydrocarbons in the vadose zone can act as a continuing source of contamination to the ground water. EPA recommends that the soils penetrated by each boring be continuously sampled at 5 foot intervals and analyzed on a discrete basis for volatile and semivolatile organics and RCRA metals. Also, the work plan should include the procedures to be followed to collect the samples.

4. Section 3.0 SWMU #8:

a) The Addendum should contain a description of how the GPR survey will be conducted, such as a method similar to that planned for SWMU #9, i.e., concentric circles around each tank at a 5 foot interval to 75 feet, and then at a 10 foot interval to 145 feet. Other potential disposal areas, outside of the 145 foot circles around each tank, should also be covered by GPR, and the specific survey program/grid in these areas should be described (such as, on a 10 foot grid basis).

b) Since Figure 4-4 of the September 1995 RFI Work plan shows all 3 "known" disposal pits to be located on the up-slope sides of the nearest tanks, EPA does not understand why the areas up-slope of tanks 82, 83, 85, and 1080 are not included in the areas for GPR survey, as shown on Figure 2

of Addendum 1. EPA recommends that as a minimum, a GPR survey be conducted around all tanks in concentric circles at a 5 foot interval to 75 feet, and then at a 10 foot interval to 145 feet. Other potential disposal areas, outside of the 145 circles around each tank, should also be surveyed by GPR as shown on Figure 2 of Addendum 1.

c) The work plan must state a minimum lateral and vertical dimension for each test pit trench. EPA recommends minimum dimensions of 20 feet lateral and 8 feet vertical for each test trench. Addendum 1 should be revised to include such language.

5. Section 2.3.1 Tidal Influence Investigation:

The proposed investigation of the potential tidal influence on groundwater flow patterns is limited to one narrow cross section of the site and includes only 3 of the 31 existing wells. This approach inherently assumes homogeneous aquifer characteristics across the entire site. EPA recommends that the tidal influence study include at least three cross sections of the site as follows: wells UGW-8, UGW-4, and UGW-2; wells UGW-6, UGW-14, GW-03, and UGW-3; and wells UGW-20, UGW-15, and UGW-25. Inclusion of these additional wells should not cause a major increase in project costs, since water level monitoring at existing wells is inexpensive.

6. Section 2.3.2 Limited Pump Testing:

The discussion of pump testing does not describe how pre-pumping groundwater conditions will be established. Given the potential for tidal influence, it is first necessary to monitor pre-pumping water levels in order to assess whether subsequent observed fluctuations result from pumping or normal tidal effects. EPA recommends monitoring water level elevations for 24 to 48 hours prior to initiating a pumping test.

7. Schedule:

Though the September 1995 RFI Work Plan contains a combined schedule for "Operable Units" 1 (18 First Phase RFI SWMUs/AOCs) and 2 (SWMUs 7 & 8 at Tow Way Fuel Farm, and SWMU 9 at the Tank 212-217 area), Addendum 1 should be revised to include a separate schedule for the "Operable Unit" 2 SWMUs. This is due to the lack of similarity of the nature of the investigations required at Operable Unit 2 SWMUs compared with the Operable Unit 1 SWMUs/AOCs, and the fact that they are already on different schedules (Operable Unit 1 investigations commenced in October 1995, whereas Operable Unit 2 investigations are now scheduled for March 1996).

EPA requests that within 30 calendar days of your receipt of this letter the Navy submit a revised Addendum 1, the RFI workplan for SWMUs #7 & 8, to address the above comments. Please contact Mr. Tim Gordon, of my staff, at (212) 637-4167 if there are any questions.

Sincerely yours,

Andrew Bellina, P.E.
Chief, Hazardous Waste Facilities Branch

cc: Commander S.J. Pena, NAVSTA Roosevelt Roads
Mr. P.A. Rakowski, P.E., LANTDIV
Mr. Carl A. Soderberg, CFO
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