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LETTER AND COMMENTS FROM U S EPA REGION 3 REGARDING SITE SCREENING
AREAS 2, 17, 18 AND 19 NWS YORKTOWN VA
10/31/1994
U S EPA REGION 3



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Date: October 31, 1994

Ms. Brenda Norton, PE
Atlantic Division, Naval Facilities Engineering Command
Environmental Quality Division
Code: 1822
Building N 26, Room 54
1510 Gilbert Street
Norfolk, Va 23511-2699

Re: Naval Weapons Station, Yorktown, Va.
Site- Screening Areas 2, 17, 18, and 19
Review of draft *Work Plan*

Dear Ms. Norton:

The U.S. Environmental Protection Agency (EPA) has reviewed the Navy's draft *Work Plan* for the investigation of Site-Screening Areas 2, 17, 18, and 19 located at the Naval Weapons Station-Yorktown (WPNSTA) NPL facility. Based upon that review, EPA has the following comments to offer on the draft document:

GENERAL COMMENTS

1. The locations of the UST at SSA 17 and 18 need to be clearly shown on maps and figures included in the final *Work Plan*.
2. The sampling design proposed for the Mark 46 Torpedo Support Facility is generally adequate. However, EPA recommends collecting a sample from northwest of the perimeter fence. This location may be used as background if the gradient moves toward the southeast, as reported in the text. In addition, more than one soil boring location should be used to collect data on subsurface soils. At least one boring location should be chosen as background to compare results with the proposed soil boring location.
3. The sampling design proposed for the Mark 48 Torpedo Support Facility should also include a background sampling location. A location east of the perimeter fence should be sampled to cover the full perimeter. On page 4-5, it was stated that previous investigations conducted in this area indicated that the subsurface soils and groundwater were impacted by releases from Site activities. If subsurface soils are impacted, additional sampling of subsurface soils should be included in the final *Work Plan*. Currently, only surface soils and groundwater sampling are proposed for this area.
4. The information provided for the sampling design in Section 4.4 for the Explosive Ordnance Disposal Area does not match the information provided in Table 4-4. The text states that a total of 24, 15, and 5 samples will be collected for sediments, subsurface soils, and groundwater, respectively; however, Table 4-4 shows that a total of 22, 18, and 6 samples will be collected for sediments, subsurface soils, and groundwater, respectively. The text describes 5 sediment locations for both Ponds 10 and 11, and 2 sediment locations for Pond 10A. For each sediment sampling location, samples from two depths

will be collected. Therefore, the total number of samples collected will be 24 (12 X 2). Figure 4-4 purportedly represents the sampling locations for each media. The proposed surface water and sediment locations cannot be determined from this figure due to overlapping color schemes. Perhaps a number code could be used to clarify the picture.

5. Although the first statement in 4.4.2 states that 6 soil borings will be advanced, only 5 soil boring locations are described. However, 6 soil boring locations are depicted in Figure 4-4. The document states that 3 samples will be collected from each boring: one from the surface, one from just above the water table, and one from between the two samples. If the sample being collected from the surface sample is collected from a depth of 0-6 inches, it should be stated and considered a surface soil sample (as in Section 4.1.1), and not a subsurface soil sample. However, if the above sample is collected below this depth, soil samples from this area should also be collected from 0-6 inches. On page 4-10, it is also stated that the planned locations for the soil borings will be downgradient of Site operations. EPA recommends selecting the background sampling location from an area which is upgradient of Site operations.

SPECIFIC COMMENTS

1. Page 2-2. Section 2.1.2 - The description of SSA 2 - Former EOD Burning/Disposal Area

The final *Work Plan* should include a discussion of the removal action activities conducted by OHM which have occurred prior to the performance of this SSA investigation. It is our understanding that the removal action activities began in July, 1994. This is very important to the selection of a sampling scheme, as the ground may have clean fill where samples are currently planned.

2. Page 2-2. Section 2.1.3

The results of the integrity test which is described in the last paragraph is somewhat misleading because a hydrostatic integrity test reports the leak rate of the entire system, including normally empty lines, which are stressed under hydrostatic pressure. The final *Work Plan* should simply state that the tank system failed a hydrostatic integrity test. Additional information concerning the leak test would assist this investigation, such as, the location of the leak; the results of a retest, if one was performed; and any remedial work performed on the tank as a result of the tank test results.

3. Page 2-4. Section 2.2.1

The previous investigation conducted at SSA 2 - Former EOD Burning/Disposal Area, should be named or referenced. The reviewer was not aware that any work had been performed at SSA 2.

4. Page 3-1. Section 3.1

Otto Fuel contains propylene glycol dinitrate (PGDN), 2-nitrodiphenylamine, and dibutyl sebacate. The importance and impacts of the Otto Fuel constituents, in addition to PGDN, should be considered in the risk screening.

5. Page 3-1. Section 3.1

Please specify whether residential or industrial soil Risk Based Screening COC Table values will be used for evaluation.

6. Page 3-1. Section 3.1

If frequent low level (?) detections of contaminants are found in downgradient or downstream locations, the possibility of source areas being upgradient or upstream should be evaluated. Also, please define low level detections.

7. Page 4-2. Section 4.1.1

The sampling plan for SSA 2 should be coordinated with OHM, especially in areas where confirmation soil samples are located in areas of recent regrading and backfilling. If the confirmation sampling locations are located in areas of regrading or backfilling, the confirmation samples should be taken at a depth of 0 to 6 inches **below** the regraded area or backfill to insure that the original site is being sampled, not backfill soil.

8. Page 4-2, Section 4.1.1

The sampling design information described in Section 4.1 for the Former EOD (Explosive Ordnance Disposal) Burning/Disposal Area does not match the information provided in Table 4-1. The text states that a total of 6 surface soils, 6 subsurface soils, and 3 groundwater samples will be collected; however, Table 4-1 shows that a total of 3 surface soils, 9 subsurface soils, and 3 groundwater samples will be collected. Figure 4-1 purportedly represents the sampling locations for surface soils, subsurface soils, and groundwater samples. Only one of the three proposed surface soil samples is depicted. The three proposed soil borings/hydropunch locations are accurately shown. If the soil boring location in the upgradient position near Beaver Road is proposed as a background location, it should be stated. If this was not chosen as a background location, then an appropriate background location should be selected.

9. Page 4-4, section 4.1.4

The use of a filter sock on the temporary piezometers should be evaluated and described in the report if it is going to be used.

10. Page 4-7, Section 4.3.2

The number of existing monitoring wells at SSA 18 appears to conflict with Table 2-2 and Figure 4-3.

11. Page 4-7, Section 4.3.2

Handling of purge and decontamination water should be described.

12. Page 4-8, Section 4.4.1

Pond 12 appears to receive runoff flowing west from the EOD area. This section references pond 10 instead.

13. Page 4-8, Section 4.4.1

This section describes only three surface water samples, while figure 4-4 shows four locations.

14. Page 4-9, section 4.4.1

This section describes five locations for sediment sampling, while figure 4-4 identifies only three locations for sediment sampling at pond 11 along the western shore line.

15. Page 4-11, Section 4.4.3

This section describes three Hydropunch locations while figure 4-4 shows six Hydropunch locations.

16. Figure 4-4

Please show the location of detonation holes 1 and 2 on Figure 4-4.

This concludes EPA's comments on the review of the Navy's draft *Work Plan* for the investigation of Site-Screening Areas 2, 17, 18, and 19 located at the WPNSTA. If you have any questions, please feel free to call me at (215) 597-1110,

Sincerely,



Robert Thomson, PE
VA/WV Superfund Federal Facilities (3HW71)

cc: Jeff Harlow (WPNSTA, Code 09E32)
Stephen Mihalko (VDEQ, Richmond)
Andy Rola (BVWST, Phila.)
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