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LETTER AND COMMENTS FROM VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY
REGARDING DRAFT WORK PLAN SITE SCREENING AREAS 2, 17, 18 AND 19 NWS
YORKTOWN VA
11/18/1994
VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY



COMMONWEALTH of VIRGINIA
DEPARTMENT OF ENVIRONMENTAL QUALITY

Peter W. Schmidt
Director

November 18, 1994

P. O. Box 10009
Richmond, Virginia 23240-0009
(804) 762-4000

Commander
Atlantic Division
Naval Facilities Engineering Command
1510 Gilbert Street
ATTN: CODE 1822, Mr. Greg Hatchet
Norfolk, VA 23511-2699

Re: "Draft Work Plan Site Screening Areas 2, 17, 18, and 19",
Naval Weapons Station Yorktown, Yorktown, Virginia.

Dear Mr. Hatchet:

The Department of Environmental Quality's Waste Division is in receipt of the "Draft Work Plan Site Screening Areas 2, 17, 18, and 19" for the Naval Weapons Station Yorktown, Yorktown, Virginia. Attached are questions and comments concerning this document.

If you have any questions please contact me at (804) 762-4232.
Thank you for your cooperation.

Sincerely,

A handwritten signature in blue ink that reads "Scott McMillian".

Scott McMillian
Federal Facilities Program

CC: Jennifer Loftin (WPNSTA Yorktown)
Rob Thomson (EPA Region III)
Erica Dameron (DEQ)

COMMENTS
DRAFT WORK PLAN SSAs 2, 17, 18, AND 19
WPNSTA YORKTOWN

1. Please include what parameters the soil samples were analyzed for at SSA 17 within section 2.2.2.
2. Table 2-1 includes a column labeled 'Regulatory Level'. Please include where these levels were obtained.
3. SSA 18 had a RCRA closure and post-closure plan filed. Does SSA 17 (also a leaking waste Otto fuel UST) also need such plan?
4. Section 3-1: Some compounds have a strong affinity for solids/particulates. If a sample indicates high unfiltered values and low filtered water column values, this may be more indicative of the nature of the contaminant.
5. Ecological COPCs are addressed in a very general way. Specific criteria need to be included-criteria for selecting compounds of potential concern for ecological impact.
6. On page 3-1, it is stated that chemicals may be eliminated from consideration as COPCs when they are not present as a hot spot. What qualifies as not being present as a hot spot?
7. Page 3-2: Not comparing ecological COPCs (surface water and sediment) to risk based concentrations assumes that all standards are only ecological, not human-health oriented.
8. Page 3-2: Consideration of the inhalation exposure pathway should depend on the parameter. It should not be ignored. Inhalation of fumes and contaminated dusts should be considered.
9. Section 3-2: This section indicates that the fish (tissue) ingestion pathway will be evaluated by targeting compounds which exceed criteria or standards whose exceedances will be considered in conjunction with bioconcentration factors. The bioconcentration factors for some compounds (as determined by experimentation) may not be appropriate. There may be variation in measured BCFs in the literature due to inappropriate experimental conditions or poor analytical measurements. One of the major problems with experimentally derived BCFs is that the experiment was not conducted until the organisms reached steady state. As an alternative, BCFs can be calculated using the octanol water partition coefficient for the compound of interest. This is a commonly accepted approach and is recommended by EPA via the guidance documents for assessing bioconcentratable contaminants in water.

It is important to note that certain compounds have high partition coefficients or BCFs, but may not be detectable with routine analytical methods at concentrations which could be taken up by fish. For instance, compounds like PCBs which have a surface water quality standard of 0.00044 ug/l, may not be detected by the analytical lab at this concentration. If exceedances of water quality standards is the trigger for additional evaluation of bioaccumulation, then chemical analysis should be conducted at the level of the surface water standard. As an alternative to this situation, rather than conducting a chemical screen of water samples, a tissue sampling investigation could be conducted for the same target analytes as selected for water analysis. Tissue levels could be factored into risk determinations.

10. Section 3.4.3: The Virginia Water Quality Standards include standards for the protection of human due to the consumption of potentially contaminated tissue. Therefore, in determining the ecological index, Virginia's water quality standard for the protection of "All other surface waters" should be used, rather than the chronic water quality criterion.
11. Figure 4-2 should depict exactly where the UST is located.
12. Figure 4-3 should be enlarged to make it more legible. It should also depict exactly where the UST is located.
13. Page 4-8 states that one of three samples collected from both Ponds 10 and 11 will be collected from a point along the shore line opposite of SSA 19 and used as a SSA specific background sample. These ponds do not appear large enough to consider samples from the opposite side as background.
14. It is stated on page 4-11 that hydropunch sampling procedures will be used to collect groundwater samples from each of the three soil boring locations presented on Figure 4-4. Both Figure 4-4 and page 4-11 refer to six soil borings. Please make necessary corrections.