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Date: November 21, 1995

Mr. Richard Stryker  
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 1, 6, 7, and 15  
Review of draft final *Site-Screening Progress Report*

Dear Mr. Stryker:

The U.S. Environmental Protection Agency (EPA) has reviewed the Navy's draft final *Site-Screening Progress Report* for the investigation of Site-Screening Areas 1, 6, 7, and 15 located at the Naval Weapons Station-Yorktown (WPNSTA) NPL facility. Based upon that review, EPA has the following comments to offer on the draft final *Report*:

- 1) In accordance with Section 9.3(c)(1) of the Federal Facilities Agreement (FFA) for the Naval Weapons Station-Yorktown, Site Screening Process (SSP) Reports shall either (1) recommend a RI/FS for the SSA or (2) provide a basis that the SSA does not pose a threat or potential hazard to the environment, and be removed from further study. It is agreed that the current draft final *SSP Report* does not follow this specific SSP recommendation format as contained in the FFA, however the Navy is recommending an alternative format for the SSP Process for SSAs 1, 6, 7, and 15. Instead of recommending RI/FS activities for SSAs 1, 6, 7, and 15, the Navy suggests additional SSP activities that will be geared towards filling data gaps and/or performing non-time critical removal actions to mitigate potential risks to human health and the environment. As this deviation is a departure from the methodology listed in the FFA, EPA recommends that the Navy obtain the written consensus of the Parties to the FFA as to whether they agree to this change in the FFA procedure for evaluating SSAs. Once consensus is obtained from the Parties, the final *SSP Report* for SSAs 1, 6, 7, and 15 should document this departure from the FFA format. Additionally, there may need to be a change in the title of this final SSP Report to "*final Phase I SSP Report*" for SSAs 1, 6, 7, and 15.

With regard to EPA's position on this departure from the SSP procedure set forth in the FFA, EPA concurs with the Navy's alternative suggestion with the stipulation that the Agency does not concur at this time with any conclusions surrounding the final SSP determination of SSAs 1, 6, 7, and 15 until the Navy's alternative SSP process is brought to closure and reviewed by the Agency.

In reviewing the draft final *SSP Report*, it is EPA's understanding that the following actions are recommended by the Navy to occur at SSAs 1, 6, 7, and 15:

SSA 1 - Additional SSP efforts (not RI/FS efforts as stated in the draft final *SSP Report*)

- Performance of a habitat evaluation
- Samples to define extent of cPAH contamination in soils
- No groundwater samples are recommended by the Navy

SSA 6 - Additional SSP efforts (not RI/FS efforts as stated in the draft final *SSP Report*)

- SSP efforts recommended for helo pad vicinity
- No groundwater samples are recommended by the Navy
- No SSP efforts are recommended for the sludge disposal area and current storage areas
- Possible non-time critical removal action to remove buried activation devices and and PCB-contaminated soil.

SSA 7 - Non-time critical removal action and post-removal confirmation sampling

- Removal of abandoned UST and subsurface debris located at Main Road disposal area.

SSA 15 - No additional SSP efforts recommended specifically for SSA 15. The Navy's recommendation is to conduct expanded groundwater investigations in the vicinity of SSA 15.

- 2) It is of concern to BTAG that quantitation limits may be too high, with the result that determinations regarding contaminants of ecological concern may not be precise. Please state in the final *SSP Report* that 1/2 the detection level will be used as the benchmark for chemicals having one or more positive detections in the statistical analysis of data.
- 3) The ecological risk assessment included in the draft SSP Report can best be described as a screening level risk assessment. Very limited information was presented describing terrestrial and aquatic habitats at the four SSA sites. Hazard quotients reported for DDT and mercury in sediments from a number of the SSA sites were greater than one, indicating that there is the potential for risk to aquatic biota using these areas. To insure that environmental receptors are protected, additional investigation is warranted to better define the extent of risk to resources using these areas.
- 4) SSA 1 Two sediment samples had elevated concentrations of total DDT exceeding the ERL (Long and MacDonald 1992) for DDT, while one sediment sample had a **mercury** concentration exceeding its ERL. Significant levels of total inorganics were detected in groundwater at SSA 1 such that groundwater could present a risk to the environment if it discharged to surface water. The concentrations of chromium, iron, lead, and **mercury** in groundwater exceeded ten times their respective chronic AWQC, while these same trace elements as well as zinc were found to exceed their chronic AWQC in surface water. A survey should be made of SSA 1 to determine if the likelihood of groundwater discharging to surface water is apparent and at what probable locations. Once this is determined, surface water and sediment samples should be taken to verify any possible pathways. Additionally, the National Park Service should be consulted on matters relating to groundwater discharging to surface water at SSA 1.

- 5) **SSA 6** The nitroaromatic compounds detected in subsurface soil at SSA 6 (No. 5) are of some concern to EPA given the limited sampling that occurred at SSA 6. Therefore, EPA is recommending additional investigative work in the vicinity of the nitroaromatic subsurface soil detects at SSA 6.

-The cadmium levels detected in test pits in Area B of SSA 6 is of a concern to EPA. Additional soil sampling is needed in the vicinity of Test Pits 2 & 3 to characterize the nature and extent of PCB and cadmium contamination.

-The groundwater in the vicinity of Area D at SSA 6 needs further evaluation to determine the source of the nitroaromatics detected.

-Significant levels of total inorganics (Chromium and Nickel) were detected in groundwater at SSA 6 such that groundwater could present a risk to the environment if it discharged to surface water. The concentrations of chromium and iron in groundwater exceeded ten times their respective chronic AWQC. A survey should be made of SSA 6 to determine if the likelihood of groundwater discharging to surface water is apparent and at what probable locations. Once this is determined, surface water and sediment samples should be taken to verify any possible pathways. Additionally, the National Park Service should be consulted on matters relating to groundwater discharging to surface water at SSA 6.

- 6) **SSA 7** It is recommended that post-removal confirmation sampling at the Building 373 UST include sampling of the pipeline that runs from Building 373 to the UST?

-It is recommended that post-removal confirmation sampling at SSA 7 include sediment and surface water samples identified areas where groundwater discharges to surface water. The concentrations of chromium, iron, and lead in groundwater at SSA 7 exceeded ten times their respective chronic AWQC.

-While EPA concurs with the Navy's suggestion to conduct a non-time critical removal action for the Building 373 UST, given the detected groundwater contamination at SSA 7, EPA is recommending that an RI/FS should begin for groundwater at SSA 7.

- 7) **SSA 15** The source of the high volatile concentration seen in surface water ASW1502 along Ballard Creek needs to be investigated, as well as the extent of the DDT series pesticides and chlordane present in SSA 15 sediments. The EI value for sediment at SSA 15 was 99. The Navy may wish to consider defining contamination along Ballard Creek as a separate Operable Unit. Additionally, the National Park Service should be consulted in matters related to Ballard Creek.

-Significant levels of total inorganics (Chromium and Nickel) were detected in groundwater at SSA 15 such that groundwater could present a risk to the environment if it discharged to surface water. The concentrations of chromium and iron in groundwater exceeded ten times their respective chronic AWQC. A survey should be made of SSA 15 to determine if the likelihood of groundwater discharging to surface water is apparent and at what probable locations. Once this is determined, surface water and sediment samples should be taken to verify any possible pathways. Additionally, the National Park Service should be consulted on matters relating to groundwater discharging to surface water at SSA 15.

This concludes EPA's comments on the review of the Navy's draft final *Site-Screening Progress Report* for the investigation of SSAs 1, 6, 7, and 15 located at the WPNSTA NPL facility. If you have any questions, please feel free to call me at (215) 597-1110,

Sincerely,



Robert Thomson, PE  
Superfund Federal Facilities (3HW50)

cc: Jeff Harlow (WPNSTA, Code 09E32)  
Stephen Mihalko (VDEQ, Richmond)  
Andy Rola (BVWST, Phila.)  
Bruce Rundell (USEPA, 3HW13)  
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