

**RESPONSE TO COMMENTS ON THE  
FISCAL YEAR 2000 SITE MANAGEMENT PLAN FOR  
NAVAL WEAPONS STATION YORKTOWN, CHEATHAM ANNEX SITE**

**COMMENTS PROVIDED BY THE USEPA**

The following comments were provided by Mr. Robert Thomson, P.E. via letter dated October 14, 1999.

1. Site 1

As EPA understands, the Navy is intending to perform a Time Critical Removal Action (TCRA) at Site 1 to stabilize the landfill. The TCRA is scheduled to be accomplished in December, 1999. The draft SMP then mentions the development of an EE/CA at Site 1, beginning in January, 2000. The term EE/CA is defined in the NCP and involves the performance of a non-time critical removal action. The Region is wondering if the Navy is truly intending on performing a non-time critical removal action at Site 1 in the year 2000 just after completing a time-critical removal action? If so, usually an Action Memorandum, or similar, would be needed to select the removal action. A public comment period is also usually announced.

EPA typically views response actions at landfills, especially final actions, to be remedial investigations, not removals. The Region was also wondering if the term focused feasibility study wasn't a more appropriate term for the study at Site 1? Is the response action at Site 1 envisioned as a final action to include capping, long-term monitoring, or operation and maintenance requirements?

*Response: The TCRA for Site 1 was completed in January 2000 and addressed a small (approximately 60-foot long) portion of the shoreline from which debris was outcropping. The action was viewed as time critical because of the active erosion that was occurring. The proposed EE/CA was to address the entire former landfill, which is not viewed as requiring a time-critical response. We concur that a focused FS would be more appropriate for the site and have revised the SMP to reflect that a focused FS will be performed. Remedial Action construction is tentatively scheduled for FY 2002, and will be preceded by submittal of an RI and focused FS. A public comment period will be provided as part of the PRAP and ROD processes. The final action for the site has not been selected, however, capping with long-term monitoring and operating and maintenance will be evaluated as one of the options.*

2. Site 8

Can the Navy confirm the inert nature of the materials disposed of at Site 8? Is there sampling data that can be "screened"?

*Response: There is no sampling data available to confirm the inert nature of the materials disposed at the site. If available, the Navy will provide documentation/certification that only food and other inert materials were disposed at the site.*

3. Site 10

The groundwater at Site 10 needs to be further investigated. The source of the dichloropropane and dissolved mercury in the groundwater needs to be ascertained. What are the breakdown products of DS-2?

More importantly, the Region noted that the site description of Site 10 included mention of finding small bottles on-site, approximately 3 inches in height, containing a dry-yellow material. Given that the site was used to bury DS-2, a chemical warfare decontamination agent, could it be possible the site was also used as an area to decontaminate chemical warfare materials? The small bottles described in the text of the SMP could be part of a Navy M1 gas identification kit, or M72 chemical agent identification kit. Are these bottles still in the woods? If so, is there any discernable etching or labeling on these bottles?

It is also interesting to note that the Navy M1 and M72 gas identification kits were stored in non-metallic containers, usually wooden or plastic boxes. Therefore, the performance of EM may or may not have detected the presence of such buried kits. Is there any TIC data available for this site?

*Response: Filtered (dissolved) groundwater samples collected during the 1992 SI contained dissolved mercury. Samples collected from the three monitoring wells and the duplicate sample each contained 0.15J micrograms per liter (µg/L). Mercury was not detected in the unfiltered (total) samples. The mercury detections are highly suspect because the filtered concentrations are higher than the unfiltered concentrations. Neither total nor dissolved mercury was detected in the groundwater samples that were collected from the Site 10 monitoring wells in 1997 (under the SSP Investigation) to confirm the 1992 results.*

*During the 1992 SI, the volatile 1,2 dichloropropane was not detected in any of the environmental groundwater samples collected from the Site 10 monitoring wells. The compound was detected in the duplicate sample that was collected for the site. The compound was not detected in the groundwater samples collected from the Site 10 monitoring wells during the 1997 SSP Investigation.*

*As the presence of mercury and 1,2 dichloropropane was not confirmed in the most recent sampling, it appears that there is no source of these contaminants at the site and that additional groundwater investigation is not warranted at this time.*

*The decontamination agent DS-2 is a semi-viscous golden oily liquid with an ammoniacal odor. It has the formula 70± 1% diethylene triamine, 28± 1% ethylene glycol monomethyl ether, 2± 0.1% sodium hydroxide. Likely breakdown products for DS-2 include water, ammonia, ethanol, methane or methanol, and salts.*

*As the primary function of CAX is and has been storage and distribution, it is highly unlikely that any chemical warfare operations or training occurred at Site 10. The chemical warfare respirator cartridges that were found at AOC 2 are typical of a more plausible scenario where unused items that were no longer needed were buried. At AOC 2 the respirator cartridges that were buried were stacked on wooden crates, intact in the original protective casing.*

*It appears that the bottles have been removed from the site.*

*No TIC data for the site could be located.*

### 3. Former Penniman Ordnance Plant areas

The Navy should probably consider adding at least one or two Operable Units to the Fiscal Year 2000 SMP related to the investigation of the former Penniman Ordnance Plant structures located on Navy property. The Region recommends considering the following locations:

- former TNT graining house sump
- former TNT catch box ruins
- underground mixing tanks and associated piping system
- metallic slag located at the south/southeastern part of Cheatham Annex

*Response: The comment is noted. These sites have not been included in the FY 2000 SMP. If appropriate the Navy will add these areas as Installation Restoration (IR) sites in the future. The SMP has been revised to reflect possible future inclusion of Penniman-related sites.*

### COMMENTS PROVIDED BY VDEQ

The following comments were provided by Ms. Sharon Wilcox, CHMM (VDEQ) via letter dated January 11, 2000.

#### 1. Section 3.0

Section 3.0 should have another section added which discusses the potential Penniman related investigations and the contaminants which could be present from the shell loading plant and related support and demolition activities. This will give a better indication that additional work, though not yet defined, is anticipated in these areas.

*Response: Section 3.0 has been revised to include summaries of the USEPA's Site Inspection Narrative Report and Data Acquisition Summary Report for the Penniman Facility. The introduction presented in Section 4.0 has been revised to state that Penniman-related sites may be added to the CAX IR Program in the future.*

2. Site 1 Status

Site 1, page 4 under Status of Site 1 – It would be a good idea to include PCBs as they are present in actionable levels (over 1 ppm).

*Response: A discussion of the PCB detections at Site 1 has been added to the text.*

3. Site 10 Future Activities

Site 10, page 2, under Future Activities... - As the general location of drums has been identified, the plan should be to confirm the location and excavate the drums for off-site disposal. Though this is not a top priority for this year, it is of higher concern than several of the other sites. The planned activities description should be modified to reflect its status.

*Response: Agreed. A test pit investigation should be performed to determine if buried containers are present. Then, if warranted, a removal should be executed. The text has been revised accordingly.*

4. Site 11 Section

There is a major word processing error in Site 11, third paragraph.

*Response: The word processing error has been corrected.*