

3/30/04-01419

**Capito, Bonnie P. CIV Env Program Mgmt EV32**

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**From:** Cole, Linda L CIV Env Engineering  
**Date:** Thursday, April 08, 2004 1:26 PM  
**To:** Capito, Bonnie P. CIV Env Program Mgmt EV32  
**Subject:** FW: CAX Site 12 Tech Memo Response to Comments

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FISC WILLIAMSBURG  
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Response to Site 12  
HH Comment..

AR. For Cheatham Annex, Site 12 - Disposal Site Near Water Tower (response to comments for Technical Memorandum that supports a NFA recommendation).

-----Original Message-----

From: Shana Conley [mailto:sconley@mbakercorp.com]  
Sent: Tuesday, March 30, 2004 13:33  
To: mmullen@adelphia.net; samihalko@deq.state.va.us;  
Franklin.Greyson@epamail.epa.gov; Don Joiner; Cole, Linda L CIV Env  
Engineering; BlackwellWC@PWCNORVA.NAVY.MIL  
Cc: Mary E. Smith  
Subject: CAX Site 12 Tech Memo Response to Comments

Attached please find the response to comments for the CAX Site 12  
Technical Memorandum.

**Response to Comments**  
**Draft Source Release Investigation Technical Memorandum**

**Site 12 – Disposal Site Near the Water Tower**  
**Naval Weapons Station Yorktown, Cheatham Annex Site**  
**Williamsburg, Virginia**

The Draft Source Release Investigation Technical Memorandum (SRITM) Site 12 – Disposal Site Near the Water Tower (Site 12), Naval Weapons Station Yorktown, Cheatham Annex Site, Williamsburg, Virginia was submitted for review on January 12, 2004 to the Virginia Department of Environmental Quality (VDEQ), United States Environmental Protection Agency (USEPA), Region III, and the Navy.

During the Partnering Meeting of March 9-11, 2004 the VDEQ stated that they had no comments on the SRITM and agreed with the no further response action planned (NFRAP) remedy proposed for Site 12 in the SRITM. During the March 9-11, 2004 Partnering Meeting, a conference call was held on March 10, 2004 with the USEPA BTAG representative, John McCloskey, who stated that USEPA Region III BTAG had no comments on the document. Also, during the March 9-11, 2004 Partnering Meeting, the Partnering Team reached consensus to proceed with the proposed no further response action planned (NFRAP) for Site 12 as recorded in the Meeting Minutes.

The following comments from Dawn Ioven, USEPA on the Human Health Risk Assessment portion of the Draft SRITM were forwarded via e-mail by Greyson Franklin USEPA Region III on February 5, 2004. The Final SRITM for Site 12 will be revised to incorporate these comments as noted in the responses below.

1. General Comment. I agree with the conclusions of the Baseline Risk Assessment (BLRA); this site poses no unacceptable risk to human health.

Response: Agreed.

2. General Comment. Formatting and printing the risk tables for the CAX - Site 12 BLRA took quite a bit of time. For future site documents with many pages or tables, I would prefer receiving a hard copy (rather than electronic) from the Navy.

Response: Agreed.

3. Page 7-2. In the Exposure Assessment section, the exclusion of gw from the BLRA should be explained.

Response: No groundwater was collected from Site 12. The paragraph discussing groundwater RBCs was inadvertently included from another Site's BLRA. It will be modified to include only soil RBCs.

4. Page 7-6. Under a future land-use scenario, exposure of on-site industrial/commercial workers to total soil (surface + subsurface) should be evaluated.

Response: It is agreed that the comment is technically correct. However, the conservative approach used in this BLRA will be maintained based on the following rationale.

The current/future on-site industrial/commercial worker evaluation for exposure to surface soil only will not be changed. As noted in the BLRA for Site 12, there were no unacceptable carcinogenic

risks or health hazards calculated for the future residential adult or child receptors from exposure to surface soil and subsurface soil. The future residential exposure scenario represents the most conservative exposure scenario (i.e., provides an upper bound for potential risks). Since no adverse health effects resulted from the evaluation of the future residential scenario, no adverse health effects would result from evaluation of current/future industrial/commercial worker for exposure to surface and subsurface soil. However, future BLRAs completed at WPNSTA will include evaluation of exposure of future on-site industrial/commercial workers to total soil (surface + subsurface).

For future on-site residents and construction workers, assessing exposure to surface soil and subsurface soil separately will not be changed. Also, the fraction ingested will remain 1 for each medium. The rationale is that, as noted in the comment, evaluating the surface and subsurface soil separately and assuming a 100 percent fraction ingested for each medium is a more conservative approach to evaluate exposure to total soil. By using this approach, the two separate data sets will yield more conservative exposure concentrations with which to assess potential risks and health hazards. Also, evaluating exposure to surface and subsurface soil separately lessens the likelihood that a chemical of potential concern (from one medium or the other) will be diluted out. If necessary, by assuming a fraction ingested of 1.0 for each medium, potential adverse health effects from surface soil versus subsurface soil can be easily differentiated (e.g., which medium presented greater risks or health hazards). This more conservative approach did not produce unacceptable carcinogenic risks or adverse health effects to future on-site resident (adult and child) or construction worker receptors. Revising the approach as noted in the comment would only result in lower carcinogenic risks and noncarcinogenic hazard levels. As such, the approach used in the BLRA will remain the same and present no adverse human health effects resulting from a very conservative approach. However, the future BLRAs conducted for WPNSTA will consider evaluation of exposure to total soil (surface + subsurface), particularly in instances where the subsurface soil interval is shallow (i.e., maximum depth less than or equal to two feet).

5. Page 7-9. Respective ingestion rates for sediment are mentioned in Section 7.2.5 of the report. However, potential risks from contact with sediment were not evaluated for this site. The text should be adjusted accordingly.

Response: The text will be adjusted to omit reference to sediment.

6. Table 4.1.1a. An exposure time of 12 hours/day for trespassers seems too high. Based on professional judgment, I suggest lowering this parameter to perhaps four hours/day. This comment also applies to Table 4.2.1a.

Response: Agreed, however, the conservative exposure time of 12 hours was selected to be consistent with the trespasser scenario at CAX Site 1 and therefore will be maintained.

7. Table 4.3.1a. The respiration rate for a current on-site worker performing routine maintenance activities should probably be higher than 0.83 m<sup>3</sup>/hr. I suggest using an inhalation rate of 1.5 m<sup>3</sup>/hr, which represents a moderate level of activity. Table 7-3 should be modified to reflect this change.

Response: Agreed, however, the respiration rate of 0.83 m<sup>3</sup>/hr was selected to be consistent with the current on-site worker scenario at CAX Site 1 and therefore will be maintained.

8. Table 4.6.1a. The respiration rate for a future on-site industrial/commercial worker should be lower than 3.3 m<sup>3</sup>/hr. I suggest using an inhalation rate of 1.1 m<sup>3</sup>/hr, which represents a low level of activity. Table 7-3 should be modified to reflect this change.

Response: Agreed. This change will be made.

9. Tables 4.7.1a and 4.7.2a. The respiration rate for a future construction worker should be higher than 0.8 m<sup>3</sup>/hr. I suggest using an inhalation rate of 2.5 m<sup>3</sup>/hr, which represents a heavy level of activity. Table 7-3 should be modified to reflect this change.

Response: Agreed. This change will be made.

10. Table 6-1. It's odd that arsenic was not detected in soil at the site. The analytical data should be reviewed to ensure that this is, in fact, the case. This comment also applies to Table 6-2.

Response: All arsenic data is B or U-flagged, indicating either non-detected results or blank contamination.

11. Tables 7-1 and 7-2. Are Tables 7-1 and 7-2 a duplication of Tables 6-1 and 6-2?

Response: Tables 7-1 and 7-2 were duplicates included in error. The final document will be revised to correct this duplication.