

5/19/08 - 02095

**Landin, Paul/VBO**

---

**From:** Hirsh.Steven@epamail.epa.gov  
**Sent:** Monday, May 19, 2008 11:05 AM  
**To:** Rosnick, Holly/WDC; winoma.johnson@navy.mil; Landin, Paul/VBO; ejsaolopek@deq.virginia.gov  
**Subject:** Non-Time Critical Removal Action Work Plan, Site 18 Former Naval Magazine Waste Storage Area, Naval Station Norfolk, Norfolk, Virginia

Hi Holly, Winoma and Paul,

EPA has reviewed the "Non-Time Critical Removal Action Work Plan, Site 18 Former Naval Magazine Waste Storage Area, Naval Station Norfolk, Norfolk, Virginia". The following comments are submitted for your consideration. We have previously discussed these. It would be helpful if you could prepare a brief response that I can provide the hydrogeologist.

1. Figure 1-6, depicts the COPCs at Site 18, please note the surprising rise in concentrations in well MW-03S over time, an increase of this magnitude is quite rare.

2. Section 3.2.2 Injection Volume and Rate, Page 3-3, second paragraph, refers to "daylighting of substrate" and decision mechanisms to be used during injection of EOS. Please define the term "daylighting" and why it would be of concern.

3. Figure 3-1 and 3-2 Show the location of a B-B' transect along with the intended treatment/injection depths. Transect B-B' is perpendicular to groundwater flow and yet the application depths are shown in Figure 3-2 as being at two distinct depths. Figure 3-2 states that injection depths will be 6 to 16 feet or 12 to 22 feet below ground surface. Based upon the groundwater flow direction present, please justify why the orientation of deep injections is warranted or based on a perpendicular direction to groundwater flow. There may be data I am unaware of in terms of the design of the injections system for which this rationale is apparent. However from what's presented the intent of the distribution of injected agent is not apparent.

Thank you for the opportunity to review this document. If you have any questions about these comments please contact me.

Steve

Steven R. Hirsh  
U.S. EPA Region III (3HS12)  
1650 Arch Street  
Philadelphia, PA 19103-2029

---

215.814.3352 / 215.514.9015 cell  
hirsh.steven@epa.gov