

**Monica Marrow**

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**From:** Staszak, Janna/VBO  
**Sent:** Tuesday, August 19, 2008 3:15 PM  
**To:** Bell, Walt J CIV NAVFAC, OPNEEV; Reisch, Timothy A CIV NAVFAC MID ATLANTIC;  
Doran, Karen; Burchette.John@epamail.epa.gov; Henderson, Kimberly/VBO  
**Cc:** 'tsword@tikigaq.com'; Wenk, Tim/VBO; douglas.p.taylor@navy.mil  
**Subject:** SJCA Site 5 Stabilization Tech Memo Response to Comments  
**Attachments:** Soil Stabilization Memo RTC.doc

Hi Team,

AGVIQ-CH2M HILL JV II prepared the attached response to comments to the comments you provided on the stabilization tech memo. The response to comments incorporates the revised stabilization approach that Tim Reisch discussed with you. Please let JV II (Taylor Sword or Tim Wenk) know if you are OK with the responses. If so, they will send out a revised tech memo to show you the changes, then incorporate it into the final work plan as an appendix.

Thanks~  
Janna

**Responses to Comments  
Site 5 Soil Stabilization  
St. Juliens Creek Annex  
Chesapeake, Virginia**

PREPARED FOR: Tim Reisch, NAVFAC Mid-Atlantic  
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PREPARED BY: AGVIQ-CH2M HILL JV II

DATE: August 19, 2008

**Comments from VDEQ, provided July 16, 2008.**

1. *Will the rate of amendment (% application) be adjusted based on the waste characterization results, or will a uniform rate of application be applied to all of the grids (e.g., will you add more portland cement to Grid J, which has the highest TCLP lead result, than to Grid A, which has the lowest TCLP lead result?) Please clarify in the text.*

**Response:** The rate of amendment application will not be adjusted based on the waste characterization results; the soil will be amended at a rate of 5% by weight. To clarify, the following text will be added to the memorandum following the discussion of why a treatability study will not be performed:

*“The application rate will not change by cell in an effort to ensure that one application of the stabilization amendment is necessary, regardless of the pre-excavation waste characterization sample results. The application may be in excess for the cells with the relatively lower lead concentrations to meet the non-hazardous classification; however the rate is believed to be sufficient to stabilize the soil with the highest lead concentration.”*

2. *Please add details of the construction of the stabilization area (e.g., liner material).*

**Response:** The sequence of construction/stabilization will be modified in the technical memorandum to be as follows:

- The material from the grid cells with elevated lead concentrations will be excavated

- The material from grids A, J, and L will be mechanically screened in the grid; mechanical screening is not required for grid cell R because no debris is expected to be found
- The material will be staged and stabilized within the boundary of that grid
- An additional waste characterization sample will be collected from the stabilized soil to verify the material is non-hazardous for disposal
- Upon receipt of the sample results with non-hazardous lead concentrations, the stabilized soil will be moved to the load out area using off-road articulating dump. If the sample results indicate the lead concentration is still at a hazardous level, additional Portland cement will be added until sample results indicate it is at a non-hazardous level.
- The material will be loaded into haul trucks for disposal.

Since the soil will be stabilized in the same grid where it is excavated from, a liner will not be installed. In addition to the erosion and sediment controls provided in the erosion and sediment control plan and discussed in the SWPPP, the silt fence will be installed around the stockpile and will be the only erosion and sediment control measure employed during stabilization.

3. *Please clarify that the dosing rate is based on weight.*

**Response:** In the table presenting the stabilization amendment alternatives evaluated for the soil, the column with the application rates shows that they are on a weight basis.

4. *Please clarify the operational approach/sequencing. (Will you excavate/stabilize/test each grid as you go through an overall site sequence, such as north to south/upgradient to downgradient to avoid potential recontamination, or excavate all haz grids/stabilize/test together?)*

**Response:** The cells with the hazardous lead concentrations will be generally addressed as they are reached during the overall site excavation sequence. The waste/burnt soil area will be addressed first and the surrounding Phase 3 areas will be addressed second. Since the material excavated from the waste/burnt soil area will be screened, this area will be excavated first to make the work flow with the screening plant more efficient.

Based on the site topography, the excavation will generally move from north to south in order to follow how runoff will move across the site. By conducting the excavation in this manner, the potential for cross contamination will be lessened because runoff entering the active excavation will be from an area that has reached the cleanup goals for the site.

**Comments from the USEPA, provided August 5, 2008.**

1. *Please specify the erosion and sediment controls that will be used in the stabilization area. EPA also suggests that the soil mixing location is lined with an impermeable liner to prevent*

*the leaching of hazardous materials into a non-hazardous location. Regardless of how soon the soil will be stabilized, mixing of the material will undoubtedly disturb previously non-hazardous material at Site 5 if an impermeable/impenetrable liner is not in place and may lead to the previously non-hazardous soils failing TCLP.*

**Response:** As discussed in the response to VDEQ comment #2, a liner will not be installed based on the revised stabilization process. In addition to the erosion and sediment controls provided in the erosion and sediment control plan and discussed in the SWPPP, silt fence will be installed around the stabilized stockpiles until the sample results indicate that the leachable lead concentration is at a non-hazardous level. The stabilization will occur in the same grid that the soil is excavated from, the risk of cross-contamination will be minimized.

The stabilized soil will remain on site long enough to ensure the stabilization efforts have been effective in reducing the leachability of lead from the soil; it is estimated the soil will remain on site for less than 10 days following excavation (7 days are required for TCLP lead analysis). The soil in the stabilization area will be excavated and have confirmation samples collected to ensure the cleanup goals are attained.

- 2. Please specify how long after excavation the soil will be stabilized (i.e. soil will be excavated from the four sample grids that were classified as hazardous waste and immediately stabilized within the extent of the soil mixing location). If soils will not be stabilized immediately, please add additional erosion and sedimentation controls that would be required for hazardous waste to be in place for 90 days.*

**Response:** The excavated soil will be stabilized as it is being screened; the Portland cement will be added to the effluent soil stream of the screening plant. By doing so, the soil will be stabilized immediately after excavation, or as close to immediate as practicable, and the Portland cement will be thoroughly mixed in to the soil.