

Allen, William

From: Allen, William
Sent: Friday, June 24, 2011 10:40 AM
To: 'whithakr@id.doe.gov'
Subject: HSM Repair Details
Attachments: Repair Plan & Times.docx

Thanks again for taking my call this morning and also for taking the time to look over the attached document.

The purpose of the attached document is an attempt on my part to gain a better picture of the steps you intend to take in repairing the Horizontal Storage Modules (HSMs). In developing the attached document, I utilized both the final report prepared by WJE and "Detailed Timeline of DOE Actions Taken to Date_Prepared by DOE.docx" which I believe you provided to Region 4 personnel. In addition to helping me better understand how you plan to repair the HSMs, this may help Headquarters staff support Region 4 in this matter.

If you can look over the attached document and provide comments/clarification by the end of the day, that would be great. If that is not possible, I would greatly appreciate getting feedback from you by July 6.

Chris Allen

Planned Work

2011

- Install cover over the bolt, nut, washer plate, and anchor bolt opening.
 - ❖ Fill the void within the anchor bolt blockout with polyurethane or silicone foam to prevent the accumulation of water within the holes. (Done)
 - ❖ Seal the following interfaces with silicone sealant or equivalent
 - Plastic (pvc) sleeve and the lid concrete
 - Bolt and washer plate
 - Washer plate and roof slab
 - ❖ Install protective cap (plastic, preformed silicone or stainless steel) and seal cap to the surface of the concrete using silicone sealant.
 - ❖ To allow monitoring of the effectiveness of the foam fill and sealant and to provide a secondary level of protection allowing any trapped water to drain freely to the outside of the HSM, provide a drain hole at the bottom of the blockout hole, at the interface with the base (optional).
- Repair of cracked HSM concrete (approximately 18 locations).
 - ❖ Remove deteriorated concrete, using small chipping hammers (or equivalent), and 4 to 6 in. of sound concrete using saws to behind the reinforcing steel.
 - ❖ Cracked concrete which is not dislodged may be repaired by resin injection.
- Apply moisture coatings to HSMs.

2012

- Repair cracks in base mat.
- Apply seal coat to base mat.
- Complete annual inspection of HSMs and base mat and verify effectiveness of installed polyurethane foam installed in anchor blockouts, and document current condition of HSM and base mat cracking.
- Begin aging management review of the HSMs (and subcomponents) and the End Module Shield Walls and recommend/implement an aging management program as necessary to support application for an extended license renewal.