



US-APWR

Sump Strainer HL Test Overview

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MITSUBISHI HEAVY INDUSTRIES, LTD.

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Introduction



- **Test Objective**
- **Test Facility**
- **Test Runs**
- **Test Schedule**



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Test Objective



- **To obtain test data that is used to demonstrate acceptable head loss across the sump strainer subject to postulated accident debris**
- **Test plan was newly developed based on past communications with the NRC, referring the 2008 March Guidance Document prepared by the NRC and industry's knowledge**

Test Facility



- **HL Test will be implemented using a prototypical strainer (SFS®) applied for the US-APWR**
- **The test strainer is installed in a mixing tank intend to minimize the debris settlement on the tank floor**
- **The test facility and parameters are appropriately scaled using plant design parameters**

Test Runs



- **Clean Strainer Head Loss**

Determine the HL across the strainer with only water (i.e., no debris)

- **Thin Bed Test**

Determine if the thin bed cause a higher HL across the strainer with a lower quantity of fibrous debris

- **Full Debris Load Test**

Determine the maximum HL across the strainer with a full debris loading that bounds the design basis

Test Schedule



- **Test will be implemented at Alden Research Laboratory located in Holden, MA**

- **Test will start on June 7, 2010**