

Diablo Canyon GL 2008-01 Void Intrusion Modifications

**NEI Workshop
January 22, 2010**

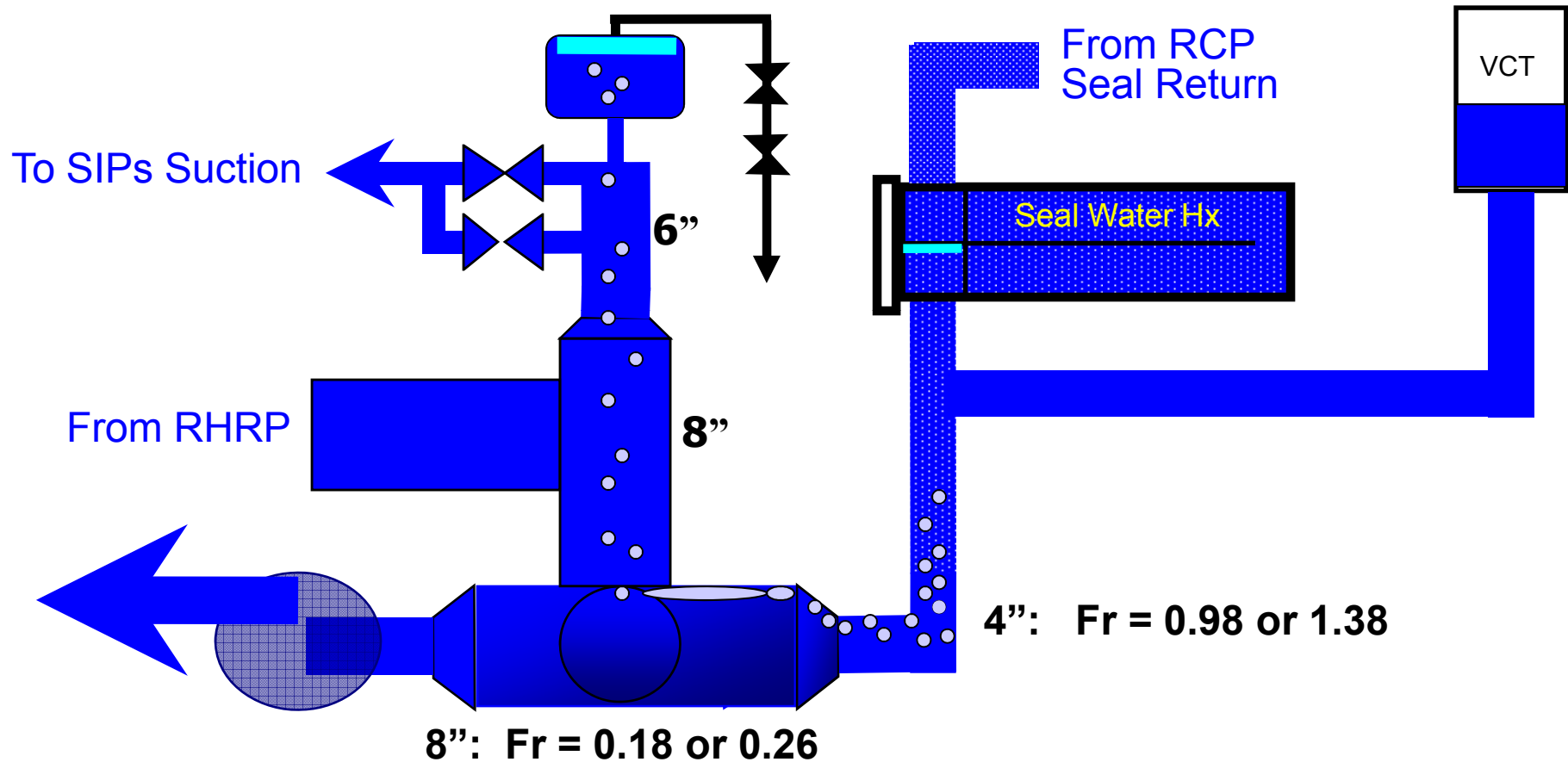
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Mitigation Strategy



1. Pump Suction : Remove Voids Away From the Active ECCS Flow Paths
2. Pump Discharge: Enhance / Increase Isolation Barriers
3. System Dynamic Venting: Coming Out of Outage
4. System Monitoring: Symptom Based Monitoring

1-A : CCP Suction Modification: **Void Header**
- **Collect Voids Away From the Active Flowpath**



CCP Suction Void Header

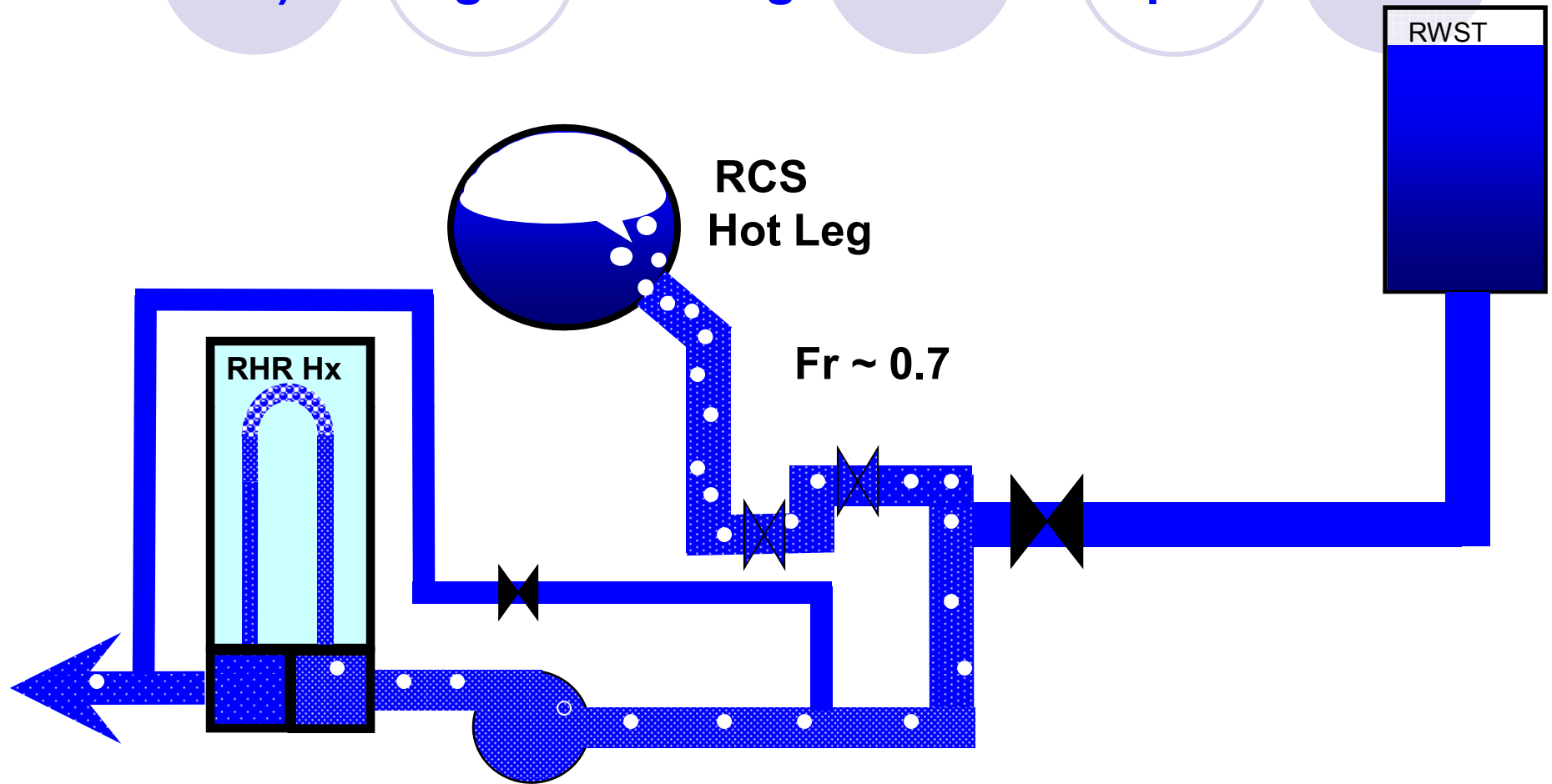


CCP Suction Void Header UT Port



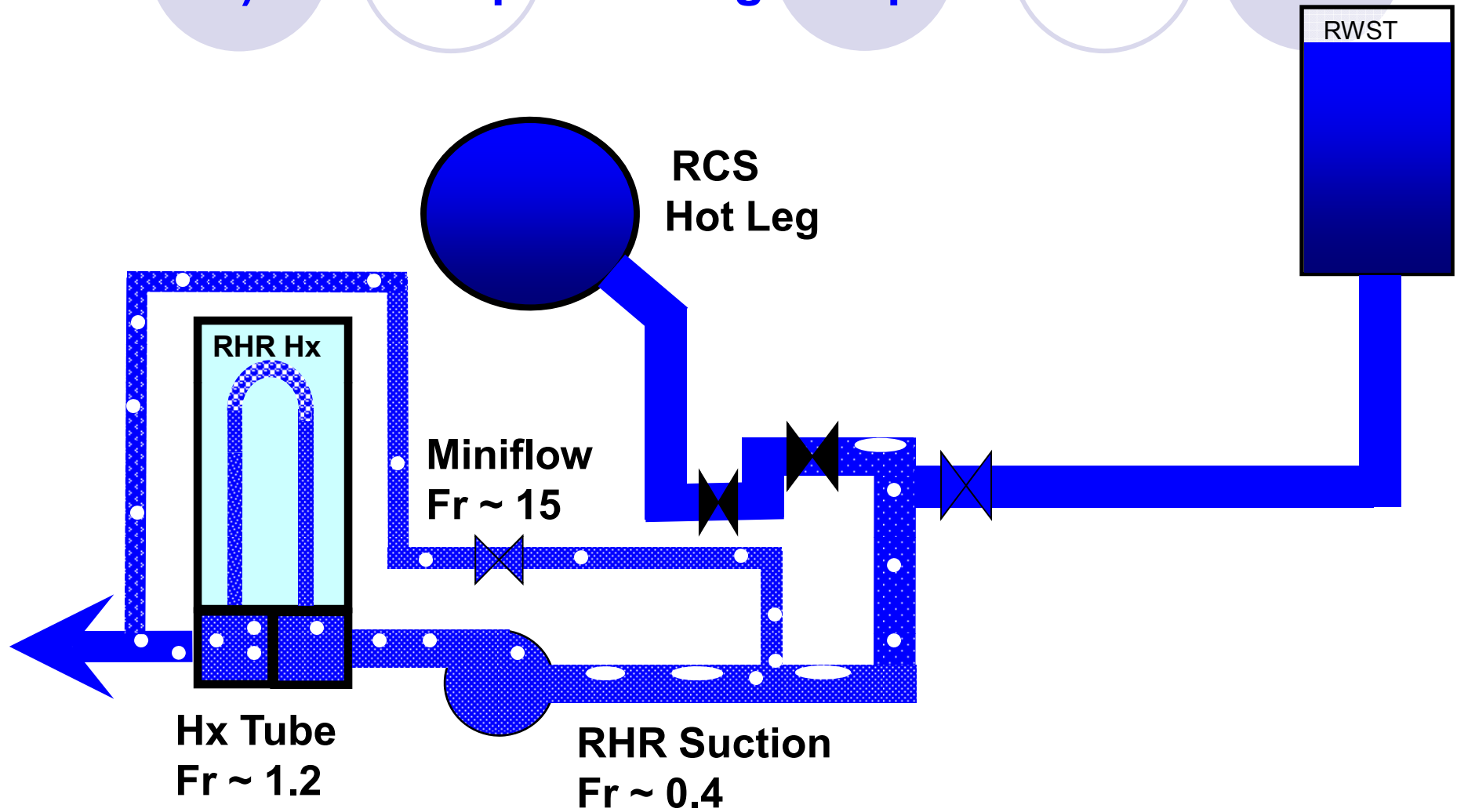
1- B: RHR Pump Suction

a) Air Ingested During RCS Mid-Loop



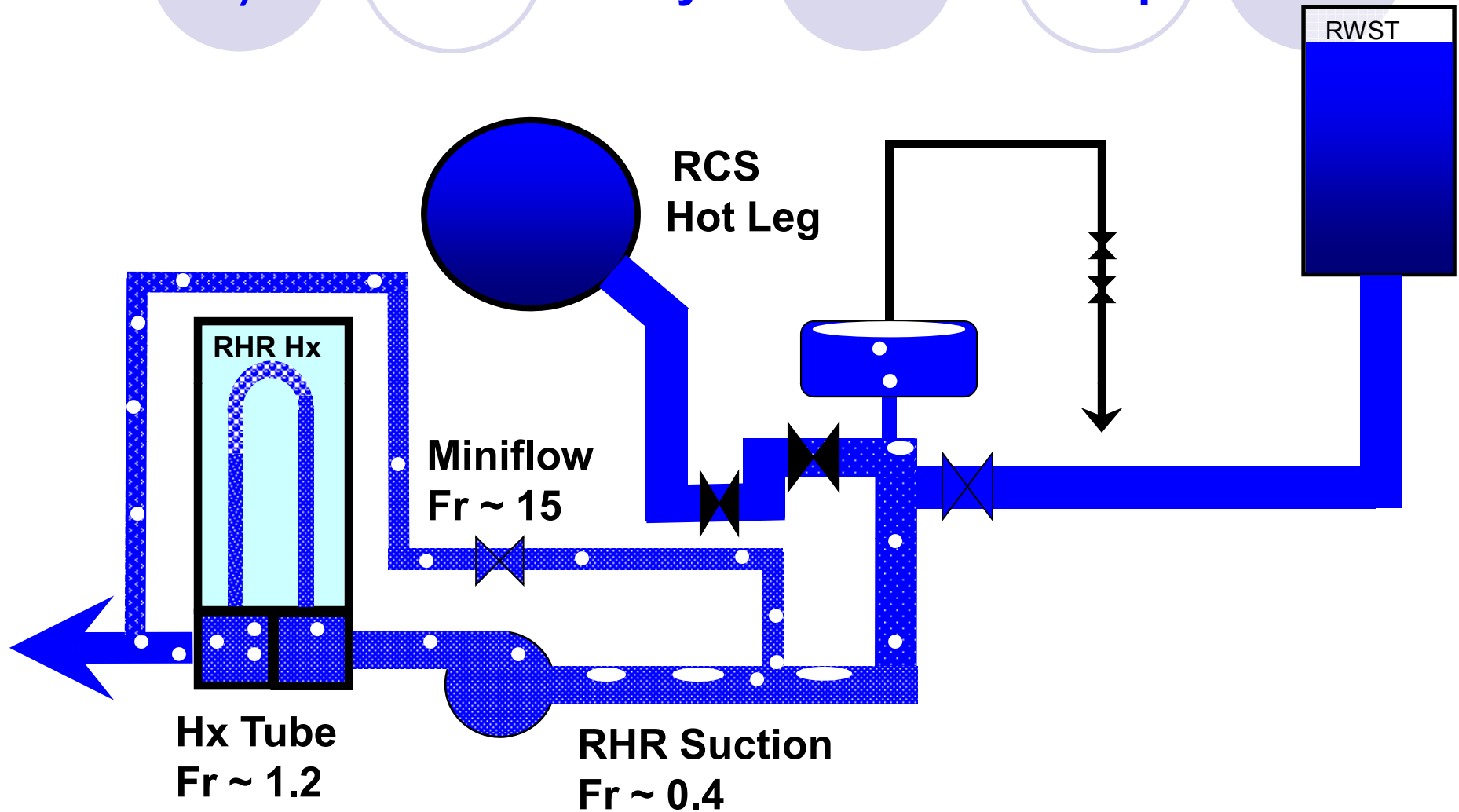
1-B: RHR Pump Suction

b) Air Transport During Pump Test

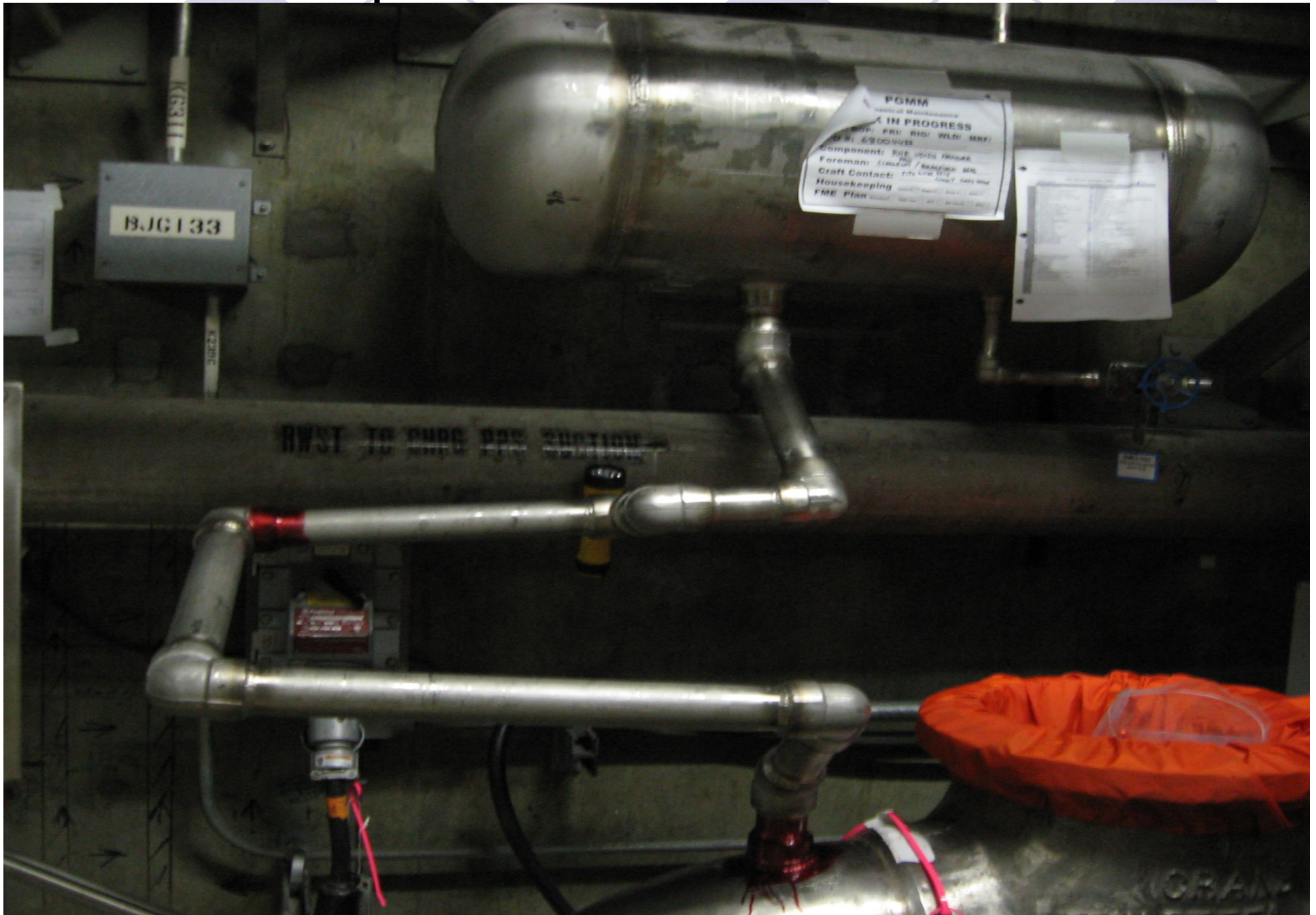


1-B: RHR Pump Suction

c) Collect Void Away From Active Flowpath



RHR Pump Suction Void Header



2. Discharge Piping – Enhance Isolation From Accumulators & Replace Check Valves

- A. Replace **10 AOVs** in the test line on the accumulator side with Anchor Darling Manual Valves
- B. Replace all **4 SI Check Valves**
- C. Replace another **9 AOVs**, and install **37 Manual Isolation Valves** for Test Optimization Modifications and To Add Barriers to Enhancement Isolation (6 isolation valves in between Accumulator and ECCS Lines in most cases)

