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PWROG GSI-191 In-Vessel Debris Program February 2015

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P R E S S U R I Z E D W A T E R R E A C T O R O W N E R S G R O U P

Program Objective

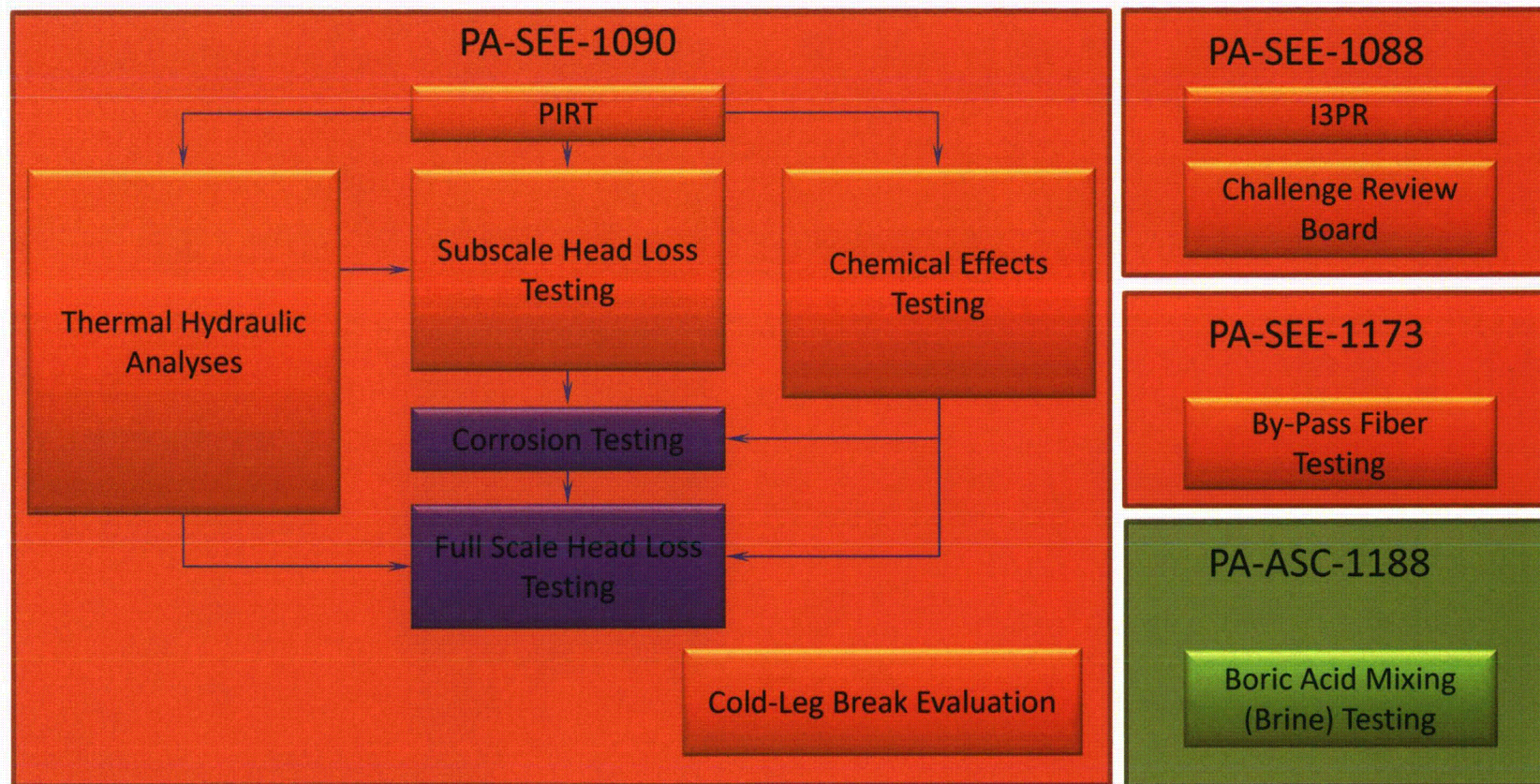
The PWROG in-vessel debris program has been established and funded to:

- Improve upon the in-vessel debris limits defined in WCAP 16793 Revision 2 for PWROG member utilities pursuing final closure of GSI-191 using a deterministic approach (*SECY 12-0093, Option 2A*)
- Support plants pursuing closure by risk informed methods (*Option 2B*)

Revised program demonstrates that LTCC requirements are satisfied provided that core blockage is delayed until adequate core cooling is available through alternate flow paths and mixing continues to occur between the core and lower plenum in the presence of limited amounts of debris

Program Overview

PWROG IN-VESSEL FIBER PROGRAM



WCAP 17788

PRESSURIZED WATER REACTOR OWNERS GROUP

Program Status

- HLB thermal hydraulic analyses complete for all plant types
- CLB calculation methodology complete
- Subscale head loss testing complete
 - Final evaluation of testing results in progress
 - Proposing one additional set of tests
 - Final debris limits to be established
- Mixing tests in progress
 - Shakedown testing completed – test plan started

Program Status

- Chemical effects testing program revised
 - Eliminate corrosion loop testing
 - Establish analytic model to validate autoclave testing and to provide bases for delay in chemical effects
 - Program closure critical path
- Program documentation proceeding in parallel

WCAP 17788 Schedule

Volume	Topic	Estimated Submittal Date
1	Program Summary - Compiles full methodology into a final summary of debris limits, applicability, and constraints	6/15/2015
2	Phenomena Identification and Ranking Table (PIRT)	Complete (4/15/2014)
3	Cold Leg Break Methodology	Complete (01/02/2015)
4	Thermal Hydraulic Analyses (Alternate Flow Paths)	4/1/2015
5	Chemical Effects Testing Program	6/9/2015
6	Subscale Head Loss Testing Program	4/23/2015



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