

Program for Pre and Post Analysis for various Experimental /Test facilities to validate conceptual designs

- In AHWR, Small Break LOCA scenario poses a challenge to ECCS as low pressure injection does not actuate since system does not depressurize enough. Passive Auto-Depressurization System (PADS) has been designed to establish flow path between IC and Steam Drum (SD) based on low SD level.
- Steam drum will be connected to a small heat exchanger system.
- The secondary side of this heat exchanger will be connected to the actuator of above mentioned passive valve. When level in the steam drum falls below the predefined level, PADS mechanism will actuate the passive valve and condensate flow will be established between steam drums & isolation condensers which will bring down the MHT pressure to the desired level.
- Feasibility studies for the above concept have been performed through RELAP5 simulation before erection of the facility.
- Further large numbers of pre and post test analysis were also carried out to validate the model.

