

EPRI Streamlined RI-ISI Results

Plant	System	Issue	Action
Plant #1, Unit 1	Interfacing system LOCA	<p>Case 1 (small interfacing LOCA) CDF is $\sim 1.5E-6$ (LERF is below the $1E-7$ criteria).</p> <p>Case 2 - (large interfacing LOCA) CDF is $\sim 2.5E-7$ (LERF = CDF).</p>	<p>1 – More refined analyses identified that this CDF value is made up of several penetrations and no single penetration contributes above the $1E-6$ criterion.</p> <p>2 – More refined analyses identified that this LERF value is made up of several penetrations. The only penetration exceeding the $1E-7$ LERF is the common shutdown cooling suction path with $\sim 1.1E-7$ LERF. This frequency excludes the probability of pipe rupture (assumes it happens) and assumes no mitigation. In addition, this piping outside containment would be made up of more than one segment. Thus, the $1E-7$ criterion can be assumed to be met.</p>
Plant #1, Unit 2	Interfacing system LOCA	See Unit 1, above	See Unit 1, above
Plant #2, Unit 1	Fire Protection line in the Auxiliary Building	Failure of a fire protection line in the Auxiliary Building which was postulated to flood the Electrical Switchgear Cable Enclosure, Battery Room and Battery Charger (CDF contribution of $6.11E-06$).	Plant hardware modification (i.e. piping removed from room)
	Circulating Water system	Failures of the circulating water system in the Condenser Pit (CDF contribution of $3.75E-06$).	Operating Procedure revised to create a more reliable operator action and therefore better define human error probabilities (HEPs)

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Plant #2, Unit 2	Fire Protection line in the Auxiliary Building	Failure of a fire protection line in the Auxiliary Building which was postulated to flood the Electrical Switchgear Cable Enclosure, Battery Room and Battery Charger (CDF contribution of 6.11E-06).	Plant hardware modification (i.e. piping removed from room)
	Circulating Water system	Failures of the circulating water system in the Condenser Pit (CDF contribution of 3.75E-06).	Operating Procedure revised to create a more reliable operator action and therefore better define human error probabilities (HEPs)
Plant #3, Unit 1	Fire protection piping in auxiliary building	Postulated rupture of fire protection piping in auxiliary building areas (210, 211, 228, and 234)	Supplementary visual inspection of the associated fire protection piping is required every quarter and 6 volumetric examinations (UT for thickness determination) per inspection interval.
Plant #3, Unit 2	Fire protection piping in auxiliary building	Postulated rupture of fire protection piping in auxiliary building areas (2210, 2211, 2228, and 2234)	Supplementary visual inspection of the associated fire protection piping is required every quarter and 8 volumetric examinations (UT for thickness determination) per inspection interval.
Plant #4	Plant Service Water (PSW)	Meets CDF criterion (CDF=1.99E-07) but not the LERF criterion	Further analysis was conducted to more realistically model the pipe failure scenario. This new analysis showed that the LERF criteria is also meet (i.e. LERF > 1E-07).

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Plant #5		Service Water piping in the 480V switchgear room	New inspections (volumetric examinations) are to be conducted on 5 of 43 welds (ten percent.
Plant #6, Unit 1	NSW	Postulated failure of ASME Class 3 nuclear service water piping in auxiliary feedwater pump room will fail multiple electric components.	Service water inspection program being revised to add inspections and adjust some other inspection (i.e. from one location to another location).
Plant #6, Unit 2	NSW	Postulated failure of ASME Class 3 nuclear service water piping in auxiliary feedwater pump room will fail multiple electric components.	Service water inspection program being revised to add inspections and adjust some other inspection (i.e. from one location to another location).
Plant #7, Unit 2	Fire protection	Flooding caused by the postulated failure of a piping run in the East DC switchgear room	3 of 10 mechanical connections selected for inspection.
Plant #8, Unit 1	Service Water in Cable Spreading Room	Loss of a number of electrical components	New inspections (volumetric examinations) for ten percent of the piping welds.
Plant #8, Unit 2	Service Water in Cable Spreading Room	Loss of a number of electrical components	New inspections (volumetric examinations) identified for ten percent of the piping welds.
Plant #9	Service Water	Several postulated pipe break scenarios	New analysis with procedures to allow credit

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	in Auxiliary building	that initially exceeded the CDF 1E-06 screening criteria.	for operator action in response to the postulated flood scenario. The more reliable operator actions result in this piping no longer exceeding the CDF screening criteria.
	Service Water in Control Building	Several postulated pipe break scenarios that initially exceeded the CDF 1E-06 screening criteria.	New analysis with procedures to allow credit for operator action in response to the postulated flood scenario. The more reliable operator actions result in this piping no longer exceeding the CDF screening criteria.
Plant #10	Fire protection	The postulated failure of fire protection piping in the control building (3 separate locations) can cause loss of both emergency switchgear rooms (ESGW train A and B) the cable spreading room (CSR train A and B)	A hardware modification eing installed (i.e. flow limiting orifice) and operating/response procedures were revised to provide for more reliable operator actions.
Plant #11	Circulating Water	This postulated piping failure involved flooding originating in the turbine building zone designated TGB.	Additional analyses were conducted to more realistically model the scenario, equipment impacts and operator actions. The updated analysis showed that the scenario no longer exceeded the CDF/LERF screening criteria.
Plant #12, Unit 1 and Unit 2	Non safety service water	Postulated piping failure resulted in impacts on both units.	Flood barriers and flood detection being installed