

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

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SUBJECT: Provides addl info re NUREG-0737, Item II.K.3.22,
 "Automatic Switchover of Reactor Core Isolation Cooling
 Sys Suction" per 820805 request. Mods to original design,
 retained capabilities & seismic design addressed.

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 TITLE: Response to NUREG -0737/NUREG-0660 TMI Action Plan Rgmts (OL's)

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MONTICELLO NUCLEAR GENERATING PLANT
Docket No. 50-263 License No. DPR-22

Automatic Suction Switchover of Reactor Core Isolation Cooling System

In a letter dated August 5, 1982 from D. B. Vassallo, Chief, Operating Reactors Branch #2, Division of Licensing, USNRC, we were asked to supply additional information related to NUREG-0737, Item II.K.3.22, Automatic Switchover of Reactor Core Isolation Cooling System Suction.

Specifically, we are responding to the following delineated acceptance criteria:

1. Modifications to the Reactor Core Isolation Cooling (RCIC) System shall be designed, fabricated, erected and tested to the quality standards commensurate with the importance of the safety functions to be performed, i.e., RCIC modifications shall satisfy the same criteria used in the original RCIC design. Therefore, if the RCIC system is not a safety grade system, then the automatic switchover sensors and circuitry need not be safety grade. However, those portions of the system which were considered to be safety grade in the original licensing basis, such as containment isolation logic and circuitry, shall be safety grade. In addition, non-safety grade logic and circuits shall be appropriately isolated from safety grade logic and circuits.
2. Regardless of whether the RCIC system is a safety grade system or not, the automatic switchover sensors and circuitry should meet the criteria of IEEE Std. 279-1971 sections 4.9, "Capability for Sensor Checks," and 4.10, "Capability for Test and Calibration."
3. The capability of remote manual switchover (in addition to automatic switchover), the capability of remote manual RCIC flow termination, and the capability of remote manual containment isolation shall be retained.

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4. The automatic switchover sensors and circuitry shall be designed for and tested to meet the same seismic design criteria as was used for the RCIC system.
5. The RCIC automatic switchover sensors and circuitry shall be environmentally qualified to the same criteria as was used for the RCIC system.
6. The logic for the switchover shall be such that the condensate storage tank suction valve is not closed until the suppression pool suction valves are fully open.
7. The design shall be such that no single failure within any equipment added to accomplish the automatic switchover of RCIC will interfere with operation of the HPCI system or interfere with the transfer of HPCI suction from the condensate storage tank to the suppression pool.
8. Bypassed and Inoperable Status Indication shall be provided in the control room for the automatic switchover channel(s) if such has been required for the RCIC system. In any case, the positions of the condensate storage tank suction valves and the suppression pool suction valves shall be indicated or be readily available in the control room.
9. If the sensors and/or associated sensing lines are located in an area where they can be exposed to cold weather, heating and ventilation or heat tracing shall be provided to prevent freezing of the sensors and/or associated sensing lines.
10. Emergency procedures should be provided to alert the plant operators to take corrective action prior to overflowing the suppression pool.

Modification to Original RCIC Design

The Reactor Core Isolation Cooling System Modification to allow automatic suction switchover satisfies the original RCIC design criteria.

Capability for Checks, Tests, and Calibration

The equipment installed and utilized in the RCIC Automatic Suction Switchover meets the applicable criteria of IEEE Std. 279-1971, sections 4.9 and 4.10.

Retained Capabilities

Remote manual suction switchover from the condensate storage tanks to the suppression pool, remote manual RCIC shutdown and flow termination, and remote manual RCIC containment isolation capabilities has been retained with the modification and installation of RCIC Automatic Suction Switchover.

Seismic Design Criteria

The equipment installed and utilized meets the RCIC seismic design criteria.

Environmental Qualification Criteria

The equipment installed and utilized meets the RCIC environmental qualification criteria.

Valve Operation

The installed logic for the RCIC Automatic Suction Switchover is such that the condensate storage tank suction valve will not close until the suppression pool suction valves are fully open.

Design for Single Failure

The installed equipment for the RCIC Automatic Suction Switchover is designed such that no single failure within any equipment added will interfere with the operation of the HPCI system, or interfere with the transfer of HPCI suction from the condensate storage tanks to the suppression pool.

Valve Position Indication

The positions of the condensate storage tank suction valve and the suppression pool suction valves are indicated in the control room. Bypassed and inoperable status indication for RCIC Automatic Suction Switchover was not required by NUREG 0737.

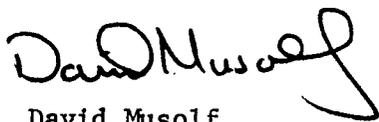
Cold Weather Protection

The level switches used for the RCIC Automatic Suction Switchover are located in the Reactor Building and are not exposed to the cold weather. The sensing lines from the condensate storage tanks are heat-traced in the areas exposed to the cold weather.

Emergency Procedures

Emergency procedures are written that alert plant operators to take corrective action prior to overflowing the suppression pool.

Please contact us if you have any questions related to the information we have provided.



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DMM/AVW/slv

cc: Regional Director III, USNRC
Resident Inspector, USNRC
NRR Project Manager, USNRC