



Nebraska Public Power District

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May 7, 1987

U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555

Subject: ATWS (10CFR50.62) Additional Information
Cooper Nuclear Station
NRC Docket No. 50-298, DPR-46

Reference: 1) Letter from G. A. Trevors to Document Control
Desk dated April 8, 1987, "ATWS (10CFR50.62)
information"

Gentlemen:

Reference 1 provided information regarding the adequacy of the scheduled ATWS modifications at Cooper Nuclear Station in meeting the requirements of 10CFR50.62. It has since been determined a correction is needed regarding the size of the suction lines for the Standby Liquid Control System. Enclosed is a revised page 2 of Reference 1 which indicates the suction lines are four (4) inches in diameter instead of two inches. Revision bars in the right hand margin indicate where the change is applicable.

We regret any inconvenience this correction may have created. If you have any questions on the above, please call.

Sincerely,

George A. Trevors
Division Manager of Nuclear Support

GAT/grs:dmr7/2(1A)

cc: NRC Regional Office
Region IV
Arlington, TX

D. L. Dubois
NRC Senior Resident Inspector
Cooper Nuclear Station

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1215 psi to 1300 psi to assure flow to the reactor, at the most degraded pump conditions, will meet the equivalency requirement.

To provide adequate net positive suction head for two pump operation, separate 4-inch suction lines from the storage and test tanks to each pump will be installed, replacing the existing configuration of a common 4-inch supply line to both pumps (Figure 1). This will also avoid mutually reinforcing pulsations in the suction piping caused by synchronization of the different pumps' plungers as discussed in the licensing topical report.

Alternate Rod Insertion

The ARI system equips the scram air supply header with at least four parallel venting paths to depressurize the header on demand to initiate control rod insertion and closure of the Scram Discharge Volume vent and drain valves (Figure 2). To protect against inadvertent header depressurization and to provide testability during plant operation, additional ARI solenoid valves in series will be utilized.

A checklist for plant specific review of ARI conformance to the design basis requirements and objectives was contained as an appendix to Reference 1. Following is a point-by-point discussion of the Cooper specific design against items in the checklist:

1. ARI System Function Time - The size of the ARI solenoid valves has been selected, based on actual plant configuration, to allow the insertion of all control rods to begin within 15 seconds of initiation of the ATWS signal. All control rods will reach their full-in position within 25 seconds of the ARI initiation signal.
2. Safety-Related Requirements - The Cooper ARI will utilize the existing sensors from the Recirculation Pump Trip system which are independent of the existing reactor protection system. The ARI will maintain the present separation criteria that exists between safety-related systems and the RPT system. The ARI logic will not violate the existing separation criteria of the Reactor Protection System (RPS). Since the ARI does not interface with any safety-related system, isolation devices will not be used.
3. Redundancy - The ARI system will be redundant to the backup scram system and the Reactor Protection system.
4. Diversity from Existing RPS - The ARI system controls, instrumentation, and solenoid valves are DC powered with the solenoid valves energized to open. The ARI solenoid valves are separate from the backup scram valves. All instrument channel components including sensors will be diverse from the existing RPS components.