

PRECURSOR DESCRIPTION AND DATA

NSIC Accession Number: 153003

Date: October 24, 1979

Title: LPR Service Water Valves Left Closed Following Testing at Oconee 2

The failure sequence was:

1. Following a revision of the LPR system valve alignment procedure to provide a table of valve positions (to permit double verification of valve position), a LPR system valve alignment was performed.
2. Two days later, with the reactor at 49% power, the LPR cooler service water valves were found to be improperly positioned, due to failure to include the LPR service water valves in the revised check list and failure of the personnel performing the valve check to note that the service water valves were still included in the body of the procedure.

Corrective action:

1. The valves were returned to their correct positions.
2. The LPR procedure was rewritten to include the service water valves in the check list.

Design purpose of failed system or component:

The service water valves provide for the flow of cooling water to the LPR cooler following a loss of coolant accident.

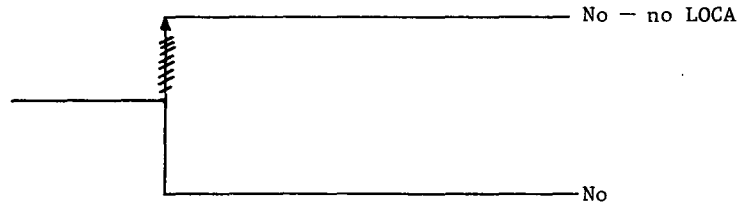
Unavailability of system per WASH 1400:* Low Pressure Recirculation: $1.3 \times 10^{-2}/D$

Unavailability of component per WASH 1400:* Valves, motor operated: $1 \times 10^{-3}/D$

* Unavailabilities are in units of per demand D^{-1} . Failure rates are in units of per hour HR^{-1} .

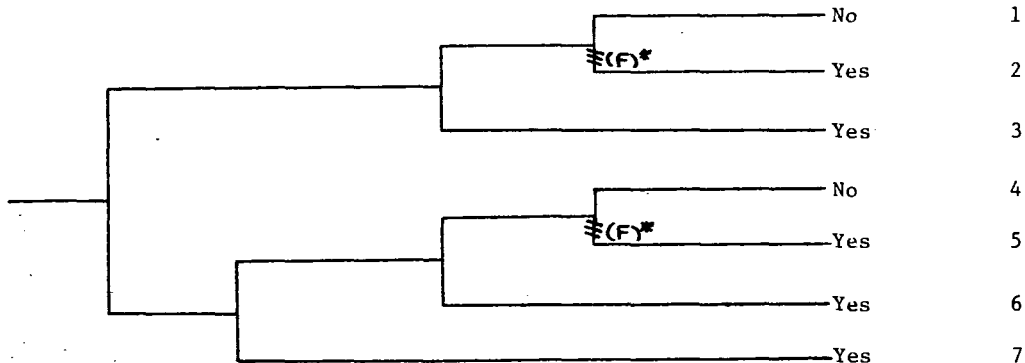
Reactor at 99% Power	Low Pressure Recirculation System Cooler Service Water Outlet Valves Found Improperly Positioned As a Result of an Improperly Revised Procedure
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Potential
Severe Core
Damage



NSIC 153003 - Actual Occurrence for LPI Service Water Valves
Left Closed Following a Test at Oconee 2

Small LOCA	Reactor Trip	Auxiliary Feedwater and Secondary Heat Removal	High Pressure Injection	Low Pressure Recirculation and LPR/HPI Cross-Connect	Potential Severe Core Damage	Sequence No.
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NSIC 153003 — Sequence of Interest for LPR Service Water Valves Left Closed Following Testing at Oconee 2

* Success requires operator detection and opening of closed valves prior to need for LPR.

CATEGORIZATION OF ACCIDENT SEQUENCE PRECURSORS

NSIC ACCESSION NUMBER: 153003

DATE OF LER: November 6, 1979

DATE OF EVENT: October 24, 1979

SYSTEM INVOLVED: Low Pressure Recirculation

COMPONENT INVOLVED: LPR Cooler Service Water Valves

CAUSE: Valves improperly positioned, human error

SEQUENCE OF INTEREST: Small LOCA

ACTUAL OCCURRENCE: Failure to Properly Position Valves After Testing

REACTOR NAME: Oconee 2

DOCKET NUMBER: 50-270

REACTOR TYPE: PWR

DESIGN ELECTRICAL RATING: 887 MWe

REACTOR AGE: 6.0 yr

VENDOR: B&W

ARCHITECT-ENGINEERS: DPC/Bechtel

OPERATORS: Duke Power Company

LOCATION: 30 miles west of Greenville, SC

DURATION: 48 hours

PLANT OPERATING CONDITION: 49% power

SAFETY FEATURE TYPE OF FAILURE: (a) inadequate performance; (b) failed to start;
(c) made inoperable; (d) _____

DISCOVERY METHOD: Operator observation

COMMENT: -