

PRECURSOR DESCRIPTION AND DATA

NSIC Accession Number: 65757

Date: June 30, 1971

Title: Failure of Containment Sump Isolation Valves at Point Beach 1
(Semi-Annual Operations Report for January-June, 1971)

The failure sequence was:

1. During a reactor heatup, the control room operator attempted to open both containment sump isolation valves.
2. Both valves failed to open due to air-binding in their hydraulic operating mechanisms. In addition, both hydraulic units were found to be installed 90° from their upright positions.

Corrective action:

The valve hydraulic mechanisms were re-oriented and the suction piping re-routed to take suction from the bottom of the oil sumps.

Design purpose of failed system or component:

The valves isolate the containment sump from the low pressure injection/recirculation system during normal operation. After the RWST is emptied following a LOCA, these valves are opened to provide suction flow to the low pressure recirculation system.

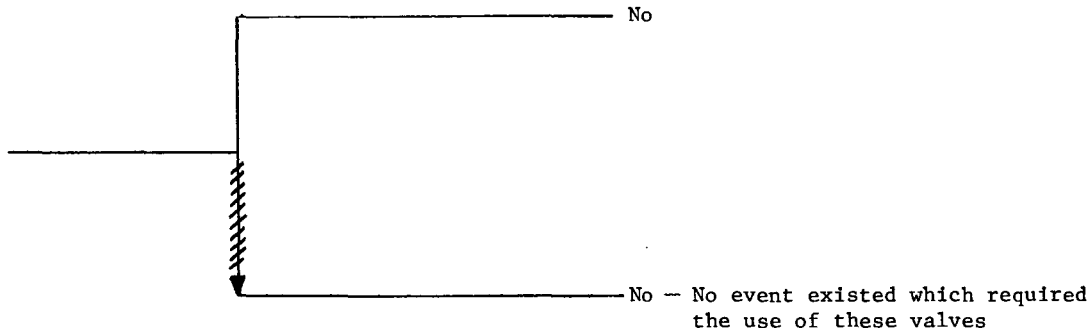
Unavailability of system per WASH 1400: * Low pressure recirculation:
 $1.3 \times 10^{-2}/D$

Unavailability of component per WASH 1400: * Valves, motor operated, failure to operate: $1 \times 10^{-3}/D$
Valves, air-fluid operated, failure to operate: $3 \times 10^{-4}/D$

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

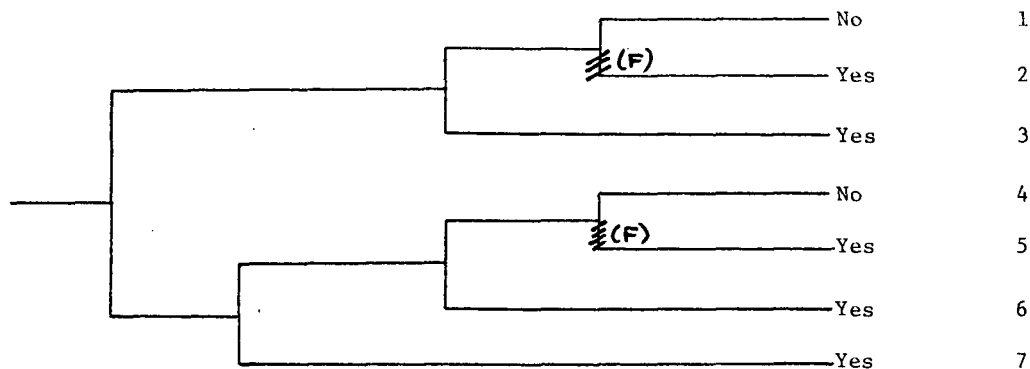
Reactor in Heatup	Operator Successfully Opens Containment Sump Isolation Valves During Testing
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Potential
Severe
Core
Damage



NSIC 65757 — Actual Occurrence for Failure of Containment Sump Isolation
Valves at Point Beach 1

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 65757 — Sequence of Interest for Failure of Containment Sump
Isolation Valves at Point Beach 1

CATEGORIZATION OF ACCIDENT SEQUENCE PRECURSORS

NSIC ACCESSION NUMBER: 65757

DATE OF LER: June 30, 1971

DATE OF EVENT: April 16, 1971

SYSTEM INVOLVED: Low pressure recirculation

COMPONENT INVOLVED: Containment sump isolation valves

CAUSE: Valves failed closed due to air-bound hydraulic operators

SEQUENCE OF INTEREST: LOCA

ACTUAL OCCURRENCE: Sump isolation valves failed closed during testing

REACTOR NAME: Point Beach 1

DOCKET NUMBER: 50-266

REACTOR TYPE: PWR

DESIGN ELECTRICAL RATING: 497 MWe

REACTOR AGE: .45 yr

VENDOR: Westinghouse

ARCHITECT-ENGINEERS: Bechtel

OPERATORS: Wisconsin Electric Power Co.

LOCATION: ~~15 miles north of Manitowoc, Wisc.~~

DURATION: 360(a) hours

PLANT OPERATING CONDITION: Reactor heatup

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

DISCOVERY METHOD: Testing

COMMENT: