

PRECURSOR DESCRIPTION AND DATA

NSIC Accession Number: 150271

Date: June 19, 1979

Title: Both RHR Service Water Pumps Inoperable at Brunswick 2

The failure sequence was:

1. The reactor was operating at 88% power.
2. The operator gave a mechanic clearance to uncouple 2B RHR pump for alignment check.
3. Mechanic uncoupled pump 2A by mistake.

Corrective action:

Seven hours later the error was discovered and pump 2A was recoupled and tested to ensure operability.

Design purpose of failed system or component:

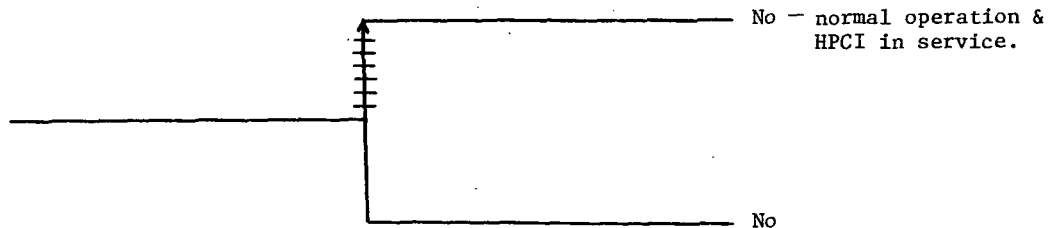
The RHR provides reactor core cooling and water level control during normal and scrammed shutdown periods. The RHR can also be operated in the LPCI mode.

Unavailability of system per WASH 1400:* $1.1 \times 10^{-4}/D$

Unavailability of component per WASH 1400:* $3 \times 10^{-3}/D$ operator error

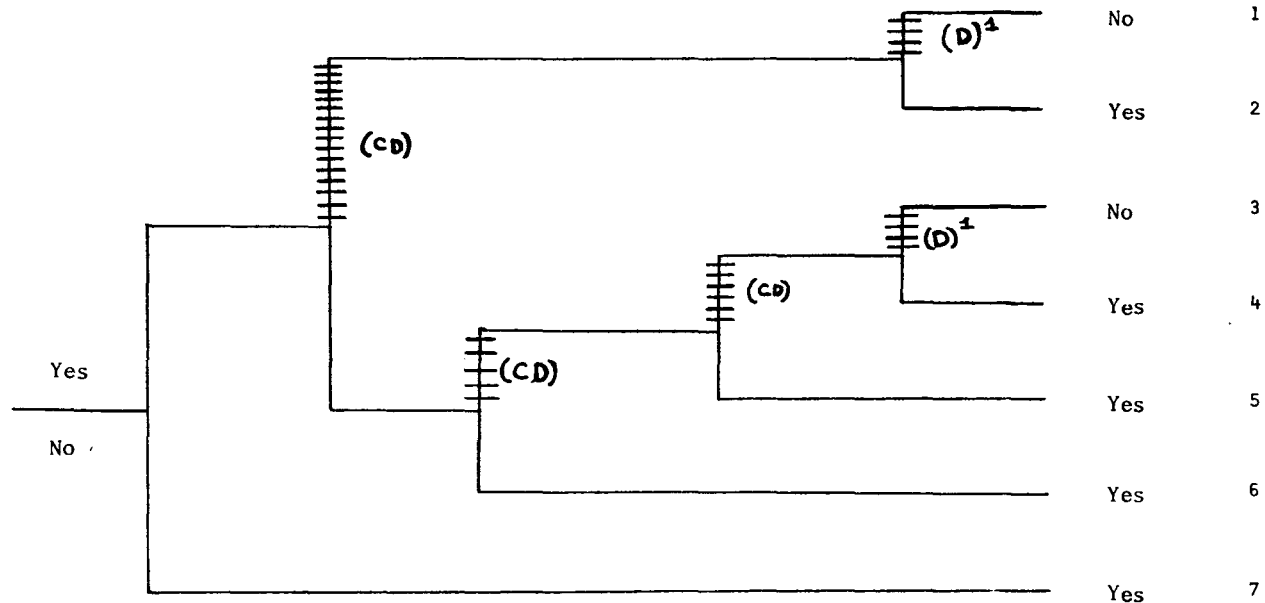
* Unavailabilities are in units of per demand D^{-1} . Failure rates are in units of per hour HR^{-1} .

With the reactor at 88% power, the operator gives clearance to uncouple RHR pump 2B for alignment check	Mechanic uncouples pump 2A by mistake, leaving both pumps out of service for 7 days	Potential Severe Core Damage
---	---	---------------------------------------



NSIC 150271 - Actual Occurrence of Both RHR Service Water Pumps Inoperable at Brunswick 2

Loss of Feedwater Flow	Reactor Subcritical	RCIC/HPCI Response Adequate	Automatic Depressurization System Operates	LPCI or CS Response Adequate	Long Term Core Cooling	Potential Severe Core Damage	Sequence No.
------------------------	---------------------	-----------------------------	--	------------------------------	------------------------	------------------------------	--------------



NSIC 150271 - Sequence of Interest of Both RHR Service Water Pumps Inoperable at Brunswick 2

¹For success the operator must rack the pumps backin within 2-24 hours.

CATEGORIZATION OF ACCIDENT SEQUENCE PRECURSORS

NSIC ACCESSION NUMBER: 150271

DATE OF LER: July 12, 1979

DATE OF EVENT: June 19, 1979

SYSTEM INVOLVED: RHR

COMPONENT INVOLVED: service water pumps

CAUSE: human error

SEQUENCE OF INTEREST: loss of feedwater

ACTUAL OCCURRENCE: Both RHR service water pumps inoperable at Brunswick 2

REACTOR NAME: Brunswick 2

DOCKET NUMBER: 50-324

REACTOR TYPE: BWR

DESIGN ELECTRICAL RATING: 821 MWe

REACTOR AGE: 4.25 yr

VENDOR: GE

ARCHITECT-ENGINEERS: United Engineers and Constructors

OPERATORS: Carolina Power and Light

LOCATION: Three miles N of South Port, NC

DURATION: 7 hours

PLANT OPERATING CONDITION: 88% power

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

DISCOVERY METHOD: operator surveillance

COMMENT: -