

NSIC Accession Number: 102146

Date: April 9, 1975

Title: Loss of Offsite Power at Brunswick 2

The failure sequence was:

1. The plants 1A and 2A 230kv buses had been incorrectly tied together.
2. With the reactor in cold shutdown, a single phase to ground fault caused the lockout relays for busses 1A and 2A to trip.
3. The diesels started and loaded as expected.
4. The relays were reset and offsite power restored (~4 min).

Corrective action:

This problem was corrected.

Design purpose of failed system or component:

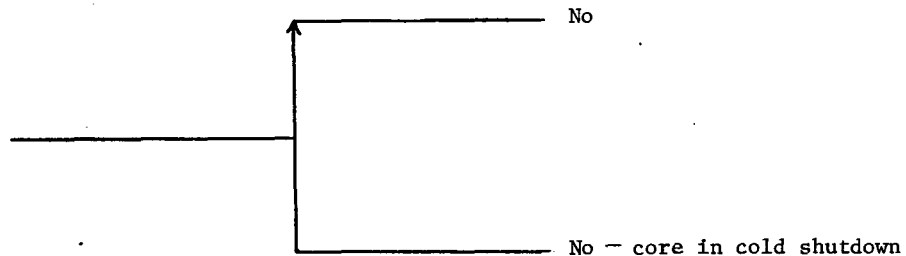
The offsite power source provides power to the plant when the unit generator isn't functioning.

Unavailability of system per WASH 1400:*

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

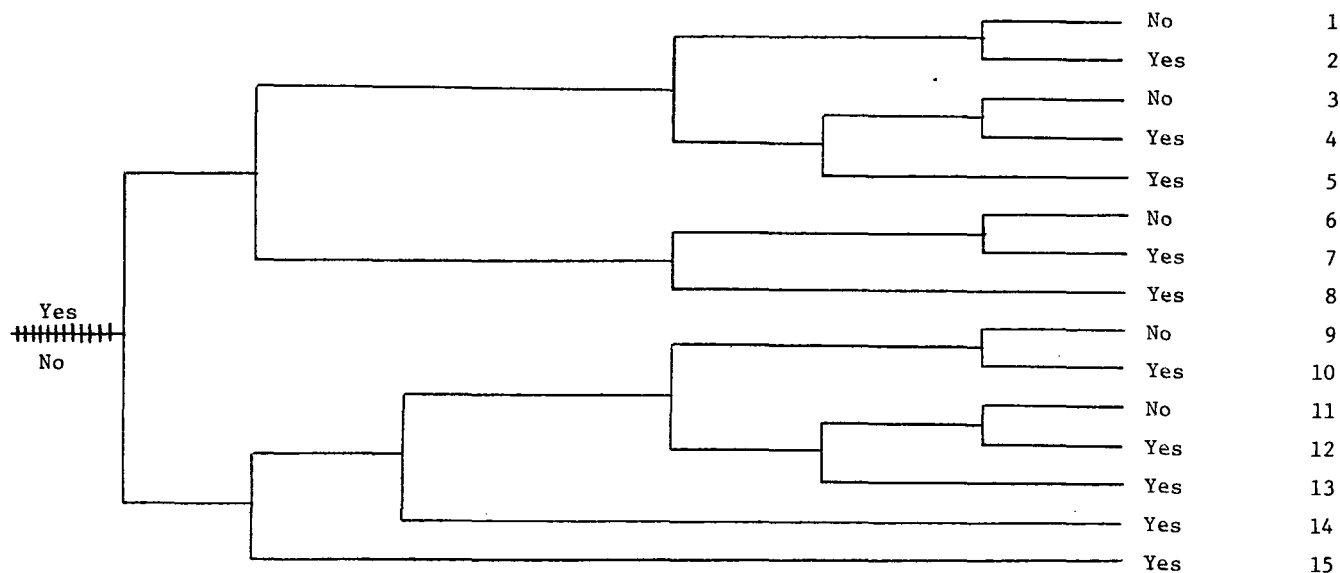
* Unavailabilities are in units of per demand D^{-1} . Failure rates are in units of per hour HR^{-1} .

Reactor in cold shutdown, when phase to ground fault trips breakers	Diesels start and load as expected	Potential Severe Core Damage
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NSIC 102146 - Actual Occurrence of Loss of Offsite Power at Brunswick 2

Loss of Offsite Power	Reactor Scram	Diesel Start and Load	Reactor Made Subcritical by the SBLCS Or Rods Are Manually Driven In	RCIC/HPCI Initiates	ADS/LPCI CS Initiates	Long Term Core Cooling	Potential Severe Core Damage	Sequence No.
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NSIC 102146 - Sequence of Interest for Loss of Offsite Power at Brunswick 2

CATEGORIZATION OF ACCIDENT SEQUENCE PRECURSORS

NSIC ACCESSION NUMBER: 102146

DATE OF LER: April 9, 1975

DATE OF EVENT: March 26, 1975

SYSTEM INVOLVED: Electric power

COMPONENT INVOLVED: relays

CAUSE: improper tying together of the 1A and 2A 230kv buses, human error

SEQUENCE OF INTEREST: loss of offsite power

ACTUAL OCCURRENCE: loss of offsite power

REACTOR NAME: Brunswick 2

DOCKET NUMBER: 50-324

REACTOR TYPE: BWR

DESIGN ELECTRICAL RATING: 821 MWe

REACTOR AGE: .05 yr

VENDOR: GE

ARCHITECT-ENGINEERS: United Engineers and Constructors

OPERATORS: Carolina Power and Light

LOCATION: 3 miles N of South Port, NC

DURATION: N/A

PLANT OPERATING CONDITION: cold shutdown

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

DISCOVERY METHOD: operation

COMMENT: -