

PRECURSOR DESCRIPTION AND DATA

NSIC Accession Number: 149230

Date: March 21, 1979

Title: Both Emergency Service Water Systems Inoperable at Arnold

The failure sequence was:

1. The reactor was operating at 70% power and surveillance testing of the emergency service water system was underway.
2. Strainer in both emergency service water systems were found to be plugged.

Corrective action:

1. The strainers were cleaned within 2.5 hours.
2. Self-cleaning strainers are to be installed during the 1980 refuel.

Design purpose of failed system or component:

The emergency service water system provides cooling water to the following systems given a loss of offsite power:

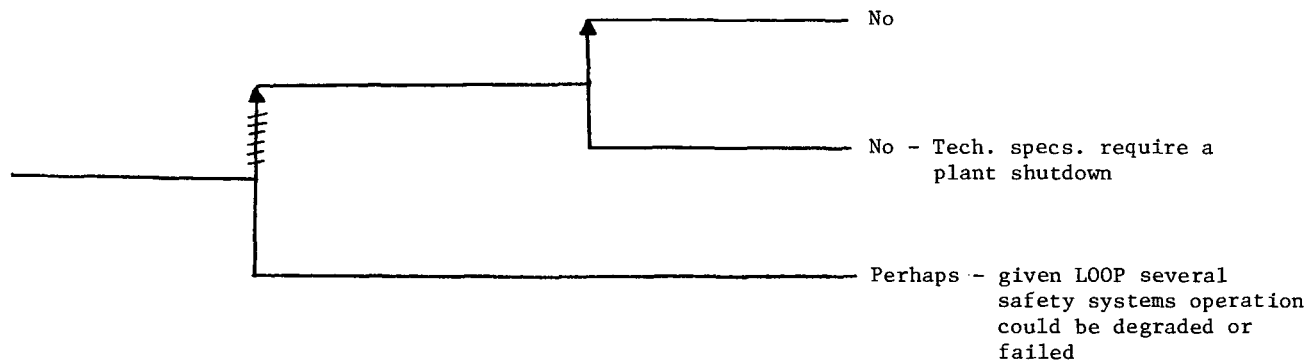
1. diesel generators
2. RHR pump seal coolers
3. RHR and core spray room cooling unit
4. HPCI room cooling unit
5. RCIC room cooling unit
6. control building chiller
7. core spray pump motor bearing coolers

Unavailability of system per WASH 1400:* not given explicitly

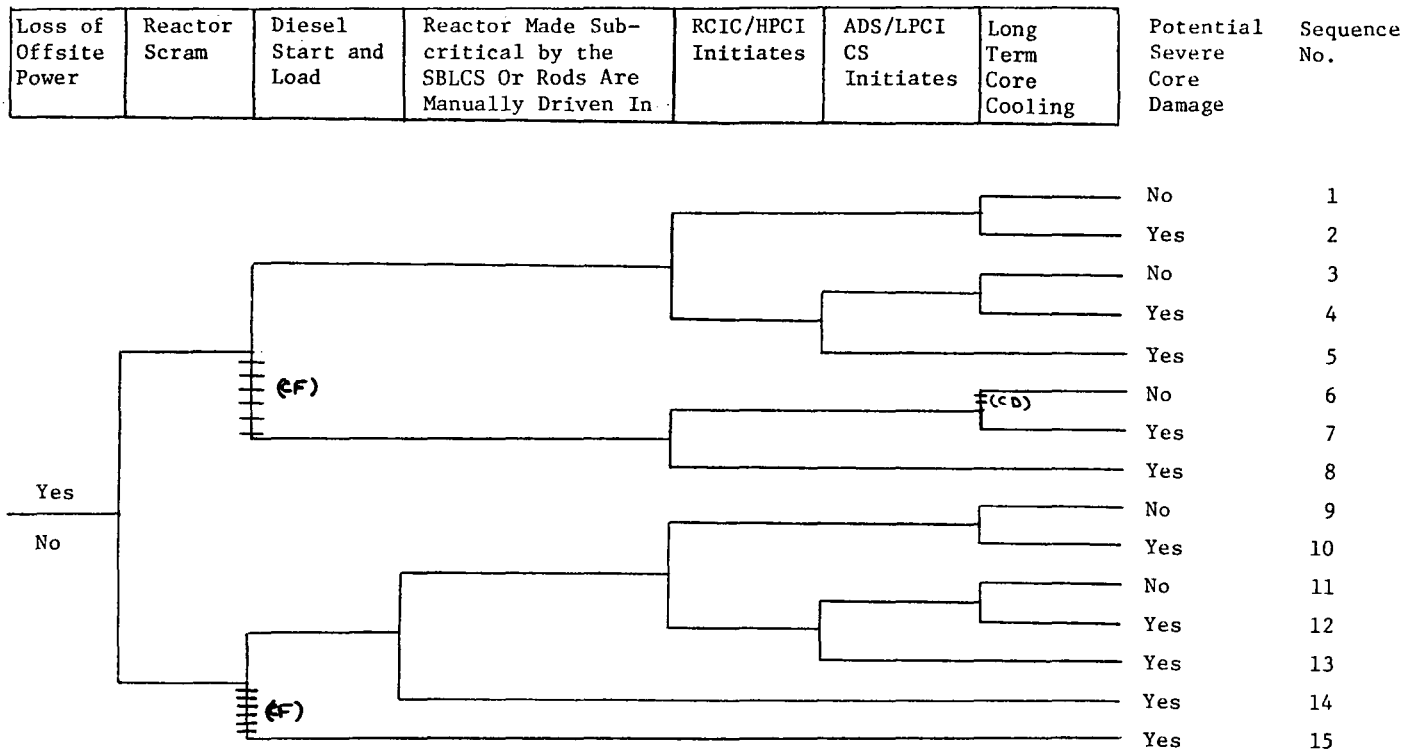
Unavailability of component per WASH 1400:* -

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

Reactor operating at 76% power	Plugged strainers are found in both emergency water lines during surveillance testing	Strainers cleaned immediately	Potential Severe Core Damage
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NSIC 149230 — Actual Occurrence of Both Emergency Service Water Systems Inoperable at Arnold



NSIC 149230 — Sequence of Interest of Both Emergency Service Water Systems Inoperable at Arnold

CATEGORIZATION OF ACCIDENT SEQUENCE PRECURSORS

NSIC ACCESSION NUMBER: 149230

DATE OF LER: April 4, 1979

DATE OF EVENT: March 21, 1979

SYSTEM INVOLVED: emergency service water system

COMPONENT INVOLVED: strainers

CAUSE: the strainers were not cleaned often enough

SEQUENCE OF INTEREST: loss of offsite power

ACTUAL OCCURRENCE: both emergency service water systems inoperable at Arnold

REACTOR NAME: Arnold

DOCKET NUMBER: 50-331

REACTOR TYPE: BWR

DESIGN ELECTRICAL RATING: 538 MWe

REACTOR AGE: 5.0 yr

VENDOR: GE

ARCHITECT-ENGINEERS: Bechtel

OPERATORS: Iowa Light and Power

LOCATION: 8 miles NW of Cedar Rapids

DURATION: 360(a) hours

PLANT OPERATING CONDITION: 76%

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

DISCOVERY METHOD: surveillance testing

COMMENT: -