

PRECURSOR DESCRIPTION AND DATA

NSIC Accession Number: 171842

Date: December 18, 1981

Title: Failure of Emergency Diesel Generators at Dresden 3

The failure sequence was:

1. On October 23, 1981, with the plant at 66% power, DG 2/3 tripped due to high cooling water temperature during surveillance. Unit 3 DG was manually tripped due to high cooling water temperature indication during subsequent testing. In both cases the DG cooling water pumps had tripped prior to the DG trips. Both cooling water pumps were restarted and the diesels subsequently declared operable. The cause of the pump trips was not determined at the time.
2. On November 19, 1981, the unit 3 DG was again shut down during testing because of high coolant temperatures.
3. Subsequent testing revealed that both the Unit 2/3 and Unit 3 cooling water pump discharge check valve disks had separated from the valve operating arms and restricted cooling water flow.
4. During the event, DG U2, DG 2/3, 4-kV cross-tie, and offsite power were still available.

Corrective action:

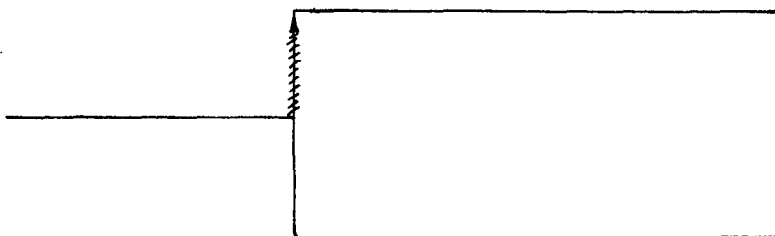
1. The defective valves were replaced, the systems were satisfactorily tested and placed back in service.
2. A procedure revision was to be initiated to inspect these valves annually.

Design purpose of failed system or component:

The diesel generator system provides emergency power to safety-related loads in the event that offsite power and the unit generator are unavailable.

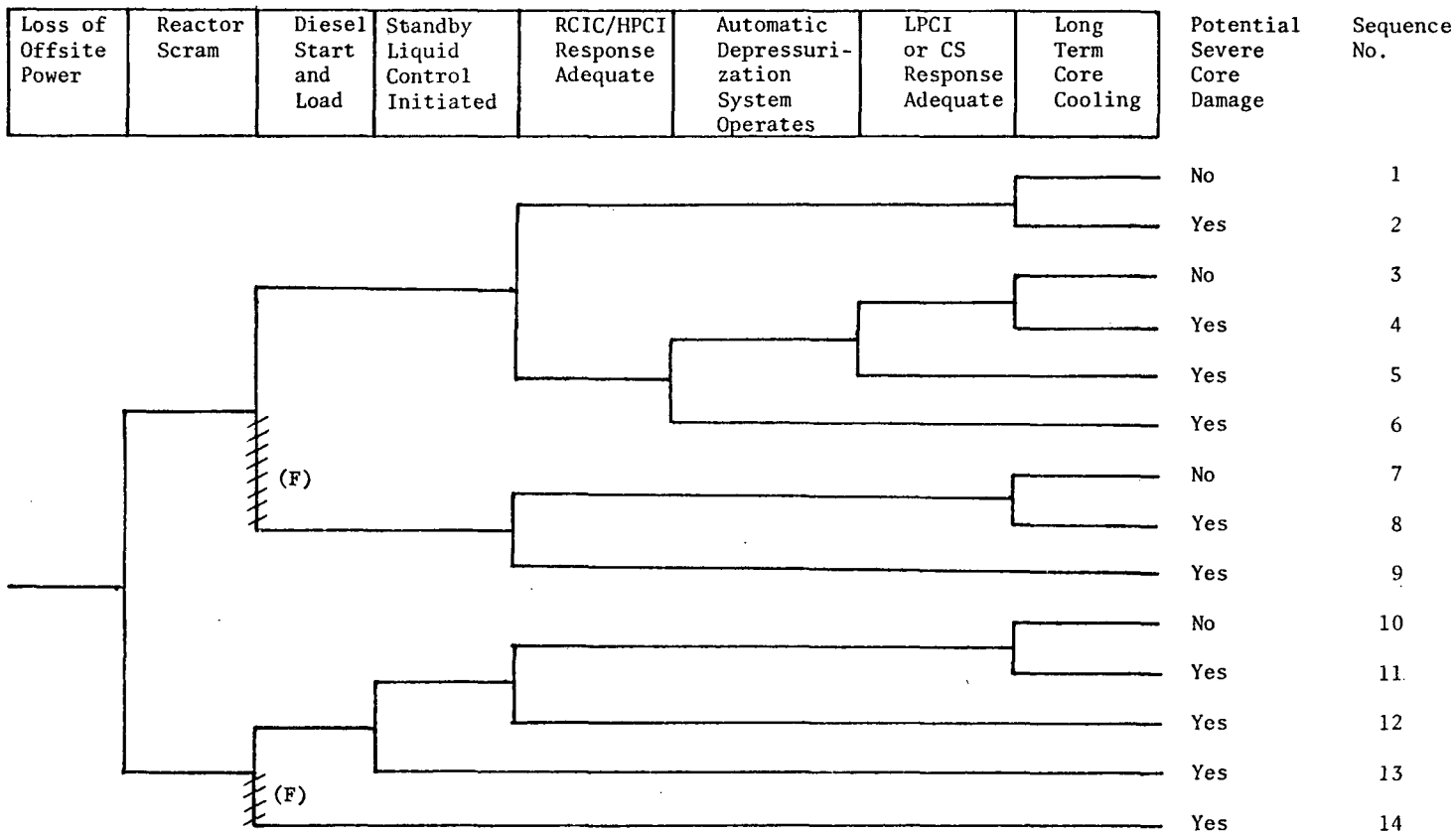
Reactor at power	Both diesel generators for Unit 3 declared inoperable during test due to insufficient cooling caused by defective diesel cooling water pump discharge check valves
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Potential
Severe
Core
Damage



No - offsite power, Unit 2 DG,
and cross-tie were available

No



NSIC 171842 - Sequence of Interest for Failure of Diesel Generators at Dresden 3

CATEGORIZATION OF ACCIDENT SEQUENCE PRECURSORS

NSIC ACCESSION NUMBER: 171842

LER NO.: 81-037

DATE OF LER: December 18, 1981

DATE OF EVENT: October 23, 1981

SYSTEM INVOLVED: Emergency power

COMPONENT INVOLVED: Diesel generator cooling system check valves

CAUSE: Mechanical failure

SEQUENCE OF INTEREST: LOOP

ACTUAL OCCURRENCE: Diesel generators declared inoperable during test

REACTOR NAME: Dresden 3

DOCKET NUMBER: 50-249

REACTOR TYPE: BWR

DESIGN ELECTRICAL RATING: 794 MWe

REACTOR AGE: 10.7 years

VENDOR: General Electric

ARCHITECT-ENGINEERS: Sargent & Lundy

OPERATORS: Commonwealth Edison Co.

LOCATION: 7 miles east of Morris, Illinois

DURATION: One half test interval before October 23 plus time interval
between October 23 and November 19: 1000 h (estimated)

PLANT OPERATING CONDITION: 66% power

TYPE OF FAILURE: Inadequate performance;
made inoperable

DISCOVERY METHOD: Surveillance testing

COMMENT: Also see Accession 170009, Dresden 3, 50-249, LER 81-033, Nov.
6, 1981.