

# PRECURSOR DESCRIPTION AND DATA

NSIC Accession Number: 91676

Date: May 17, 1974

Title: Malfunction of Auxiliary Feedwater Pumps at Turkey Point 3

The failure sequence was:

1. With the reactor at power, an attempt was made to start all three auxiliary feedwater pumps.
2. Two of the pumps failed to start due to overtightened packings.
3. The third pump failed to start due to a turbine regulating valve pneumatic controller malfunction.

Corrective action;

1. The packing on the "A" AFW pump was loosened and later replaced. After replacement, a sticking governor linkage was also discovered.
2. The "B" AFW pump was repacked.
3. The "C" AFW pump governor was exercised and its pneumatic controller output signal was increased in value.

Design purpose of failed system or component:

1. The auxiliary feedwater system provides feedwater to the steam generators for reactor cooling when main feedwater is unavailable.

Unavailability of system per WASH 1400:\* Auxiliary feedwater system:  $2.5 \times 10^{-4}$   
(start + 8 hours)

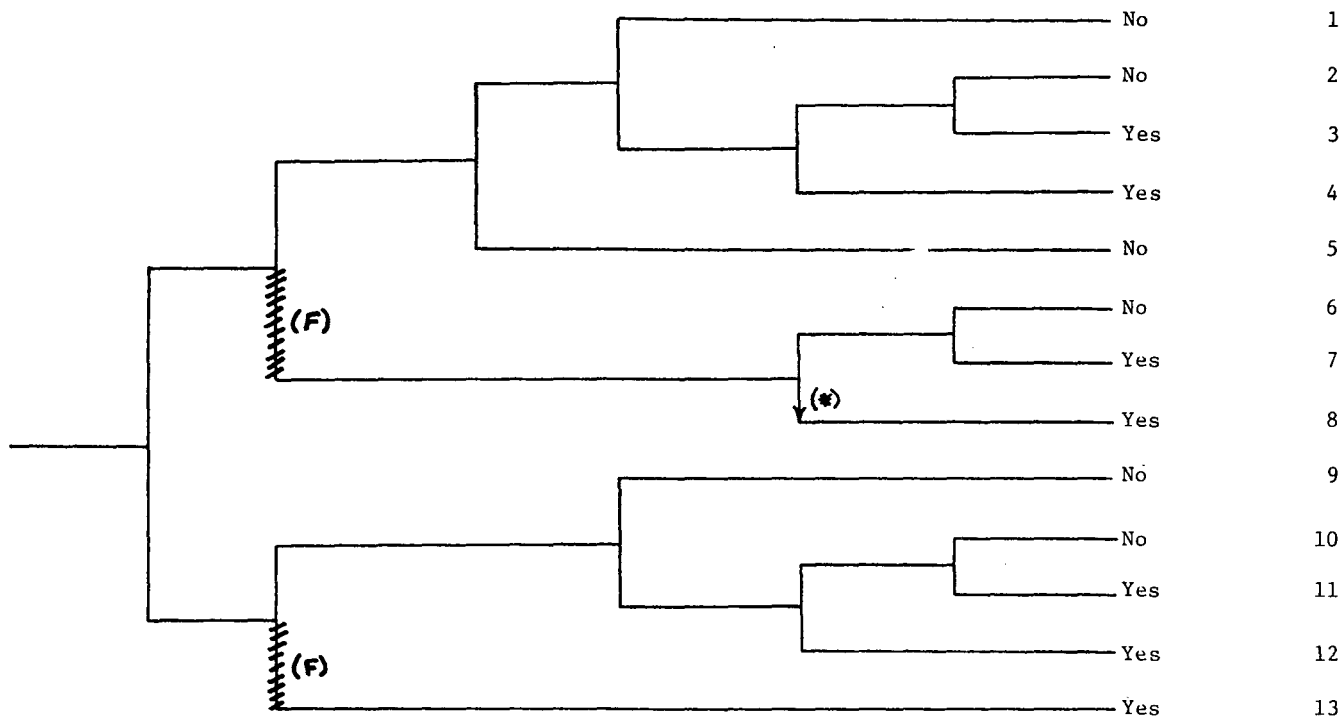
Unavailability of component per WASH 1400:\* pump, failure to start:  $1 \times 10^{-3}/D$

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



Loss of Main Feedwater	Reactor Trip	Auxiliary Feedwater and Secondary Heat Removal	PORV Demanded	PORV or PORV Isolation Valve Closure	High Pressure Injection	Long Term Core Cooling	Potential Severe Core Damage	Sequence No.
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NSIC 91676 - Sequence of Interest for Malfunction of Auxiliary Feedwater Pumps at Turkey Point 3  
 \*Use of HPI following AFW failure not included in mitigation procedures.

CATEGORIZATION OF ACCIDENT SEQUENCE PRECURSORS

NSIC ACCESSION NUMBER: 91676

DATE OF LER: May 17, 1974

DATE OF EVENT: May 8, 1974

SYSTEM INVOLVED: Auxiliary feedwater

COMPONENT INVOLVED: Auxiliary feedwater pumps

CAUSE: Overtightened packings, turbine regulating valve pneumatic controller  
malfunction, human maintenance error

SEQUENCE OF INTEREST: Loss of feedwater

ACTUAL OCCURRENCE: Failure of three auxiliary feedwater pumps to start and  
run during testing.

REACTOR NAME: Turkey Point 3

DOCKET NUMBER: 50-250

REACTOR TYPE: PWR

DESIGN ELECTRICAL RATING: 693 MWe

REACTOR AGE: 1.9 yr

VENDOR: Westinghouse

ARCHITECT-ENGINEERS: Bechtel

OPERATORS: Florida Power & Light Co.

LOCATION: ~~25 miles south of Miami~~, Fla.

DURATION: 360(a) hours

PLANT OPERATING CONDITION: At 98% power

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

DISCOVERY METHOD: During testing

COMMENT: The three AFW pumps which failed to start also provide auxiliary  
feedwater to Unit 4.