

# PRECURSOR DESCRIPTION AND DATA

NSIC Accession Number: 66996

Date: October 10, 1971

Title: Pressure Transient and Blowdown at Millstone Point 1

The failure sequence was:

1. A malfunction in the turbine pressure control system (not specified) caused a pressure transient which resulted in a reactor trip on high neutron flux.
2. The turbine was manually tripped. This caused the turbine bypass valve to open as expected.
3. The #1 bypass valve failed to close so the operator manually closed the MSIVs.
4. The blowdown continued through an open relief valve until the reactor pressure reached 263 psig when it reseated. The valve's main disk was wire drawn and badly eroded.

(See attached page)

Corrective action:

1. The relief valve was ground, rebuilt, and tested prior to being reinstalled.
2. The turbine control problem was thought to be with the linkage however this was being investigated.

Design purpose of failed system or component:

Relief valves provide for reactor pressure control

Unavailability of system per WASH 1400:\* Relief valve failure to reset:  $1 \cdot 10^{-2}/D$

Unavailability of component per WASH 1400:\*

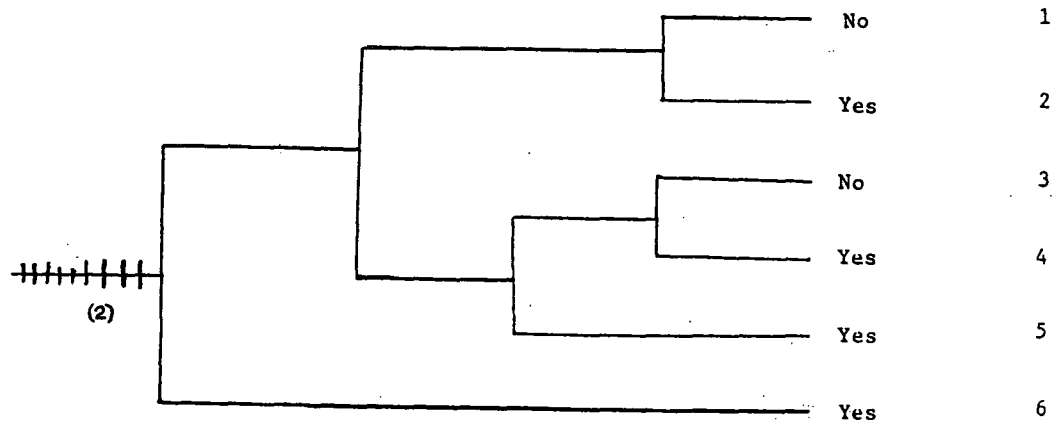
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\*Unavailabilities are in units of per demand  $D^{-1}$ . Failure rates are in units of per hour  $HR^{-1}$ .

5. The operator initiated the isolation condenser and proceeded with a controlled cooldown. A total of 75,000 gallons of water was lifted from the torus, however it was not stated how the water was injected into the core.



Loss of Coolant Accident	Reactor Maintained Subcritical	HPCI/RCIC Response <sup>(1)</sup> Adequate	ADS/LPCI CS Response Adequate	Long Term Core Cooling	Potential Severe Core Damage	Sequence No.
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NSIC 66996 — Sequence of Interest for Pressure Transient and Blowdown at Millstone Point 1

<sup>1</sup> Millstone Point 1 utilizes IC<sub>1</sub> and FWCI instead of RCIC and HPCI.

<sup>2</sup> Stuck open relief valve.

CATEGORIZATION OF ACCIDENT SEQUENCE PRECURSORS

NSIC ACCESSION NUMBER: 66996

DATE OF LER: October 22, 1971

DATE OF EVENT: October 10, 1971

SYSTEM INVOLVED: Turbine control system, pressure relief

COMPONENT INVOLVED: Relief valve

CAUSE: erosion and wire drawn seat

SEQUENCE OF INTEREST: Loss of Coolant Accident (small)

ACTUAL OCCURRENCE: Pressure transient and blowdown at Millstone Point 1

REACTOR NAME: Millstone Point 1

DOCKET NUMBER: 50-245

REACTOR TYPE: BWR

DESIGN ELECTRICAL RATING: 660 MWe

REACTOR AGE: 1 yr

VENDOR: GE

ARCHITECT-ENGINEERS: Ebasco

OPERATORS: North East Nuclear Energy Company

LOCATION: 5 miles SW of New London, Conn.

DURATION: N/A

PLANT OPERATING CONDITION: 680MWe

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

DISCOVERY METHOD: Operational event

COMMENT: -