PRECURSOR DESCRIPTION AND DATA

NSIC Accession Number: 150499

Date: July 28, 1979

Title: RCIC and HPCI Isolate Following a Reactor Scram at Hatch 2

The failure sequence was:

1. During a MSIV fast closure test, the reactor tripped (as intended) due to MSIV closure.
2. HPCI and RCIC isolated due to a high ΔP signal.
3. The operators reset and manually started both systems.

Corrective action:

1. One ΔP switch was out of specs and it was reset.
2. An investigation was initiated to discern the cause of the out-of-spec condition.

Design purpose of failed system or component:

1. HPCI is designed to maintain water level control given a small Loca.
2. RCIC is designed to maintain water level control given a loss of feedwater flow.
3. The ΔP switches are designed to send an isolation signal given a steamline pipe break in the HPCI or RCIC system.

Unavailability of system per WASH 1400:* HPCI: 8.8×10^{-2}/D given Loca
RCIC: 8.0×10^{-2}/D given Loca

Unavailability of component per WASH 1400:* pressure switches: 10^{-4}/D

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

Reactor tripped as intended during MSIV fast closure test	HPCI & RCIC isolate on high ΔP signal	Operator resets HPCI/RCIC & manually initiates them	Potential Severe Core Damage
			No
			No
			No

- Feedwater system, available as was the ADS, LPCI/CS system

NSIC 150499 — Actual Occurrence of RCIC and HPCI Isolate Following a Reactor Scram at Hatch 2

Loss of Feedwater Flow	Reactor Subcritical	RCIC/HPCI Response Adequate	Automatic Depressurization System Operates	LPCI or CS Response Adequate	Long Term Core Cooling	Potential Severe Core Damage	Sequence No.
						No	1
						Yes	2
						No	3
		(F)[1]				Yes	4
a						Yes	5
						Yes	6
						Yes	7

NSIC 150499 — Sequence of Interest for RCIC and HPCI Isolate Following a Reactor Scram at Hatch 2

[1]Success requires the operator to reset HPCI and/or RCIC.

[2]Loss of feedwater is presumed.

CATEGORIZATION OF ACCIDENT SEQUENCE PRECURSORS

NSIC ACCESSION NUMBER: 150499

DATE OF LER: July 6, 1979

DATE OF EVENT: June 28, 1979

SYSTEM INVOLVED: HPCI, RCIC

COMPONENT INVOLVED: ΔP switches

CAUSE: unknown as of reporting date

SEQUENCE OF INTEREST: loss of feedwater flow

ACTUAL OCCURRENCE: RCIC and HPCI isolate following a reactor scram at Hatch 2

REACTOR NAME: Hatch 2

DOCKET NUMBER: 50-366

REACTOR TYPE: BWR

DESIGN ELECTRICAL RATING: 784 MWe

REACTOR AGE: 1.0 yr

VENDOR: General Electric

ARCHITECT-ENGINEERS: Southern Services/Bechtel

OPERATORS: Georgia Power

LOCATION: 11 miles N of Baxley, Georgia

DURATION: 360(a) hours

PLANT OPERATING CONDITION: 0% power

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

DISCOVERY METHOD: operational test

COMMENT: -