NRC
(7-77)

U. S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT

Update LER, Previous Report Date 6-11-79

CONTROL BLOCK: | | | | | | | (1) (PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

0 1	G A E I H 2 (2)	0 0 0 0 0 0 0 0 0 0 0 (3)	4 1 1 1 1 (4)	(5)				
	LICENSEE CODE	LICENSE NUMBER	LICENSE TYPE	CAT				
CON'T 0 1	REPORT SOURCE L (6)	0 5 0 0 0 3 6 6 (7)	0 6 0 3 7 9 (8)	0 8 0 3 7 9 (9)				
		DOCKET NUMBER	EVENT DATE	REPORT DATE				

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

0 2 Following a reactor scram at 1850 CDT, the RCIC system initiated and operated for
0 3 approximately one minute before a ruptured turbine exhaust diaphram caused it to trip.
0 4 The system was secured and the requirements of Technical Specification 3.7.3 complied
0 5 with. There were no personnel injuries or radiation exposures as a result of this
0 6 incident nor were there any effects to public health and safety.
0 7
0 8

	SYSTEM CODE	CAUSE CODE	CAUSE SUBCODE	COMPONENT CODE	COMP. SUBCODE	VALVE SUBCODE
0 9	C E (11)	E (12)	B (13)	X X X X X X (14)	X (15)	Z (16)

(17) LER/RO REPORT NUMBER	EVENT YEAR		SEQUENTIAL REPORT NO.		OCCURRENCE CODE	REPORT TYPE		REVISION NO.
	7 9	—	0 4 6	/	0 1	T	—	1

ACTION TAKEN	FUTURE ACTION	EFFECT ON PLANT	SHUTDOWN METHOD	HOURS (22)	ATTACHMENT SUBMITTED	NPRD-4 FORM SUB.	PRIME COMP. SUPPLIER	COMPONENT MANUFACTURER
A (18)	Z (19)	C (20)	Z (21)	0 0 0 0	Y (23)	N (24)	N (25)	T 1 4 7 (26)

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

1 0 A ten inch check valve disc in the turbine exhaust line came loose and blocked approx-
1 1 imately 90% of the valve outlet causing a high pressure which ruptured the diaphram.
1 2 The disc was replaced and the valve repaired by securing the new disc to the hanger
1 3 and welding the nut to the disc stub. The valve was then leak rate tested satisfac-
1 4 torily.

	FACILITY STATUS	% POWER	OTHER STATUS (30)	METHOD OF DISCOVERY	DISCOVERY DESCRIPTION (32)
1 5	B (28)	0 0 0 (29)	N/A	A (31)	Operator Observation

	ACTIVITY RELEASED	CONTENT OF RELEASE	AMOUNT OF ACTIVITY (35)	LOCATION OF RELEASE (36)
1 6	Z (33)	Z (34)	N/A	N/A

PERSONNEL EXPOSURES

	NUMBER	TYPE	DESCRIPTION (39)
1 7	0 0 0 (37)	Z (38)	N/A

PERSONNEL INJURIES

	NUMBER	DESCRIPTION (41)
1 8	0 0 0 (40)	N/A

LOSS OF OR DAMAGE TO FACILITY (43)

	TYPE	DESCRIPTION
1 9	Z (42)	N/A

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PUBLICITY

	ISSUED	DESCRIPTION (45)	NRC USE ONLY
2 0	N (44)	N/A	

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NARRATIVE REPORT

RO NO. 50-366/1979-46

Initial Conditions

While ascending in power to the full power condition at 2381 megawatts thermal, a reactor scram occurred at 1850 CDT due to a condensate system trip. The reactor power level fell below 100? counts per second. The requirements of technical specifications 3.7.? were met.

Nature of Occurrence

Due to the low level in the reactor the RCIC system received an auto start signal, the system started and operated for one minute, then tripped due to a ruptured turbine exhaust diaphram caused by high exhaust line pressure.

Immediate Corrective Action

The system was secured and the reactor vessel level was maintained by restoring the condensate system.

Cause

A ten inch check valve disc. in the turbine exhaust line (2E51-F040) came loose from the disc hanger. This disc then blocked approximately 90% of the valve outlet causing a high pressure in the turbine exhaust line which ruptured the turbine exhaust diaphram.

Supplemental Corrective Action

The ten inch valve (2E51-0F040) was repaired and modified to prevent re-occurrence. The vendor (Walworth) dispatched a design engineer and Service Representative to determine the cause of failure and the proper corrective action. They determined that the failure was due to the cycling of swing check valve disc against its stop. The disc was secured to the disc hanger by a nut pinned to the disc stub for locking purposes. This pin weakened the disc stub as evidenced by the stub failure where the pin was inserted. This was corrected by welding the nut to the replacement disc instead of pinning. The valve was reassembled and leak tested satisfactorily. The turbine exhaust diaphram was replaced.

Status of Back Up or Redundant Systems

The HPCI system failed to operate. ADS, Core Spray, and RHR Systems were available to provide water to the vessel.

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Impact to Other Unit

Further consultations with the valve vendor have been scheduled and any generic implication identified will be reported in a followup report. The Unit 1 HPCI and RCIC exhaust line check valves are not of the same manufacture as the Unit II RCIC valve.

Conclusion

Corrective Action on the forementioned valve has been accomplished. A local leak rate test has been performed with a value of 1605 ACC/min. Allowable leakage is 4000 ACC/min. An operability test in accordance with Tech Specs has been satisfactorily completed.