NRC FORM 366
(7-77)

U. S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT

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

Line	Field	Value
01	LICENSEE CODE (2)	S C H B R 2
	LICENSE NUMBER (3)	0 0 - 0 0 0 0 0 - 0 0
	LICENSE TYPE (4)	4 1 1 1 1
	CAT (5)	
CON'T 01	REPORT SOURCE (6)	L
	DOCKET NUMBER (7)	0 5 0 0 0 2 6 1
	EVENT DATE (8)	0 9 0 6 8 2
	REPORT DATE (9)	1 0 0 6 8 2

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

02 On September 6, 1982 at 1635 hours, with the unit at 94% power, valve CVC-203 (Letdown
03 Relief Valve) lifted and would not reseat. The unit was placed in hot shutdown
04 conditions at 0413 hours on September 7, 1982 to isolate CVC-203 for repairs. The
05 resulting leakage was determined to be approximately 9 GPM which is in excess of the
06 allowable leakage defined by Technical Specification 3.1.5.1 and is reported pursuant
07 to 6.9.2.b.2. The leakage was confined to the Pressurizer Relief Tank and Contain-
08 ment, thus, there was no threat to the public health and safety.

Line	Field	Value
09	SYSTEM CODE (11)	P C
	CAUSE CODE (12)	E
	CAUSE SUBCODE (13)	B
	COMPONENT CODE (14)	V A L V E X
	COMP. SUBCODE (15)	H
	VALVE SUBCODE (16)	B
(17) LER/RO REPORT NUMBER	EVENT YEAR	8 2
		—
	SEQUENTIAL REPORT NO.	0 1 2
		/
	OCCURRENCE CODE	0 3
	REPORT TYPE	L
		—
	REVISION NO.	0
	ACTION TAKEN (18)	B
	FUTURE ACTION (19)	X
	EFFECT ON PLANT (20)	A
	SHUTDOWN METHOD (21)	A
	HOURS (22)	0 0 1 9
	ATTACHMENT SUBMITTED (23)	Y
	NPRD-4 FORM SUB. (24)	N
	PRIME COMP. SUPPLIER (25)	N
	COMPONENT MANUFACTURER (26)	C 7 1 0

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

10 The failure of CVC-203 was the result of water hammer which was caused by operator
11 error in the realignment of a charging pump from recirculation to normal operation
12 and resulted in loss of cooling to the letdown fluid. CVC-203 was repaired and the
13 personnel involved in the event were counselled. The reliability of CVC-203 was
14 under investigation prior to this event, and efforts toward resolution are continuing.

Line	Field	Value
15	FACILITY STATUS (28)	E
	% POWER (29)	0 9 4
	OTHER STATUS (30)	N/A
	METHOD OF DISCOVERY (31)	A
	DISCOVERY DESCRIPTION (32)	Operator Observation
16	ACTIVITY RELEASED (33)	Z
	CONTENT OF RELEASE (34)	Z
	AMOUNT OF ACTIVITY (35)	N/A
	LOCATION OF RELEASE (36)	N/A
17	PERSONNEL EXPOSURES NUMBER (37)	0 0 0
	TYPE (38)	Z
	DESCRIPTION (39)	N/A
18	PERSONNEL INJURIES NUMBER (40)	0 0 0
	DESCRIPTION (41)	N/A
19	LOSS OF OR DAMAGE TO FACILITY TYPE (42)	Z
	DESCRIPTION (43)	N/A
20	PUBLICITY ISSUED (44)	N
	DESCRIPTION (45)	N/A
	NRC USE ONLY	

8210220267 821006
PDR ADOCK 05000261
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NAME OF PREPARER Howard T. Cox PHONE: (803) 383-4524

GPO 917-926

SUPPLEMENTAL INFORMATION

FOR

LICENSEE EVENT REPORT 82-12

I. Cause Description and Analysis

On September 6, 1982 at 1635 hours, with the unit at 94% power, valve CVC-203 (Letdown Relief Valve) lifted and would not reseat.

Prior to the occurrence, two charging pumps were operating; one supplying makeup to the Reactor Coolant System and the other on recirculation. When realigning the recirculating charging pump to normal line-up, the pump discharge valve was inappropriately opened first. This allowed the charging flow from the normally operating charging pump to flow through the recirculation line of the charging pump being aligned resulting in loss of cooling to the Regenerative Heat Exchanger. The letdown fluid then heated up and, due to the pressure drop across the letdown orifices, the fluid flashed to steam.

When the charging pump recirculation line was isolated and charging flow was returned to the Regenerative Heat Exchanger, cooling of the letdown fluid returned to normal. However, this cooled letdown fluid in conjunction with the steam in the line resulted in water hammer and caused CVC-203 to chatter. The valve bellows were damaged due to the valve chatter and CVC-203 would not reseat. The resulting primary system leakage was determined to be approximately 9 GPM based on the level increase in the Pressurizer Relief Tank.

This event resulted in an identified primary system leak in excess of 1 GPM as defined by Technical Specification 3.1.5.1 and is reported pursuant to 6.9.2.b.2. The leakage was routed to the Pressurizer Relief Tank via the relief line with only slight leakage to the Containment Vessel from the valve bellows. Thus, there was no threat to the public health and safety.

II. Corrective Action

Upon discovery of the valve alignment error, the charging pump recirculation line was isolated and charging flow was returned to normal operation. Due to leakage past the Letdown Isolation Valves (CVC-460A and B) and Letdown Orifice Isolation Valves (CVC-200A, B and C), the plant was placed in hot shutdown condition at 0413 hours on September 7, 1982 to manually isolate CVC-203 for repairs. CVC-203 was disassembled, the seating surfaces were lapped, and the bellows with associated gaskets were replaced. The reassembled CVC-203 was then adjusted and tested for the proper relief pressure setting, and re-installed in satisfactory operating condition.

III. Corrective Action to Prevent Recurrence

The failure of CVC-203 was the result of water hammer which was caused by operator error in the realignment of a charging pump from recirculation to normal operation. Those personnel involved have been counselled on the proper operation of the charging pumps with respect to the effect on other plant systems. Additionally, prior to this event, the reliability of CVC-203 was questioned (IER-82-20) and efforts toward resolution are continuing. Any significant actions resulting from this investigation will be reported as a supplement to this report. The Letdown Isolation Valves (CVC-460A and B) and Letdown Orifice Isolation Valves (CVC-200A, B and C) will be examined and repaired as necessary during the next refueling outage.