NRC FORM 366
(7-77)

U. S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT

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

0 1	F L S L S 1 (2)	0 0 - 0 0 0 0 0 - 0 0 (3)	4 1 1 1 1 (4)		(5)
	LICENSEE CODE	LICENSE NUMBER	LICENSE TYPE	CAT	

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0 1	REPORT SOURCE L (6)	0 5 0 0 0 3 3 5 (7)	1 1 0 3 7 8 (8)	1 1 1 7 7 8 (9)		
		DOCKET NUMBER	EVENT DATE	REPORT DATE		

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

0 2 During a maintenace outage, the normal reactor coolant system flow (shut-
0 3 down cooling) was improperly aligned to the containment spray system. Water
0 4 from the reactor coolant system was injected through the "A" containment
0 5 spray header. This resulted in an interruption of normal shutdown cooling
0 6 flow. Action was taken in accordance with T.S. 3.4.1 and normal shutdown
0 7 cooling flow was re-established in 3.7 hours. This was the first loss of
0 8 SDC flow due to the cause described below.

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

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

1 0 While releasing a clearance on a containment spray valve following valve
1 1 maintenance, an operator used improper clearance removal instructions and
1 2 opened two isolation valves between the spray system and the shutdown
1 3 cooling system. This allowed SDC flow to enter the "A" containment spray
1 4 header. SDC flow was stopped and the isolation valves were closed.

1 5	FACILITY STATUS G (28)	% POWER 0 0 0 (29)	OTHER STATUS (30) NA	METHOD OF DISCOVERY A (31)	DISCOVERY DESCRIPTION (32) OPERATOR OBSERVATION
1 6	ACTIVITY RELEASED Z (33)	CONTENT OF RELEASE Z (34)	AMOUNT OF ACTIVITY (35) NA		LOCATION OF RELEASE (36) NA
1 7	PERSONNEL EXPOSURES NUMBER 0 0 0 (37)	TYPE Z (38)	DESCRIPTION (39) NA		
1 8	PERSONNEL INJURIES NUMBER 0 0 0 (40)	DESCRIPTION (41) NA			
1 9	LOSS OF OR DAMAGE TO FACILITY TYPE Z (42)	DESCRIPTION (43) NA			
2 0	PUBLICITY ISSUED Y (44)	DESCRIPTION (45) PRESS RELEASE 11/6/78			NRC USE ONLY

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ADDITIONAL EVENT DESCRIPTION AND PROBABLE CONSEQUENCES

At 2:48 P.M. an operator opened isolation valves V07161 and V07162 while releasing a clearance following maintenace on valve FCV-07-1A. This caused the "A" containment spray header to be pressurized by the shutdown cooling pump (1A LPSI pump). Approximately 2000 gallons of water from the reactor coolant system was injected through the containment spray header. Simultaneously, cavitation of 1A LPSI pump was observed. The 1A LPSI pump was stopped, the misaligned valves were closed, and it was confirmed that flow through the containment spray header was terminated. The 30 personnel working in the containment building were evacuated, monitored, and decontaminated as required. Additionally, all personnel in containment were given a body burden analysis as a precaution.

The RCS level was restored to proper level and accessible portions of the shutdown cooling system were vented. At 3:55 P.M. the 1A LPSI pump was restarted and shutdown cooling flow temporarily re-established. However, this pump was stopped after about 10 minutes run time due to apparent cavitation. The 1B LPSI pump and piping were aligned and vented, and a shutdown cooling flow of 500 gpm was established at 5:30 P.M. The normal shutdown cooling flow rate was established by 6:30 P.M.

This event did not constitute a hazard to the public, and no personnel were injured. All body burden analyses indicated normal body spectographs. The reactor coolant system temperature indication did not exceed 185°F. No permanent plant equipment damage was incurred.

ADDITIONAL CAUSE DESCRIPTION AND CORRECTIVE ACTION

During the outage, maintenance had been performed on flow control valve FCV-07-1A. The valve had been de-energized for maintenance; therefore, it was in its "fail-open" position. Isolation valves for FCV-07-1A (V07161 and V07162) were shut by a plant clearance. While releasing the clearance, the operator, following improperly written clearance release instructions, removed tags from V07161 and V07162 before energizing FCV-07-1A. The operator then opened V07161 and V07162, allowing the shutdown cooling pump to pressurize the "A" containment spray header. Due to pump cavitation, and to prevent further containment spray-down, the shutdown cooling pump was tripped manually and the isolation valves were closed.

Following containment spray-down, the personnel working in the containment building were evacuated and decontaminated as required, and the containment building was isolated. The containment building was decontaminated and released for access. Investigation of plant equipment inside containment showed no damage as a result of the spray-down. Operators involved in the clearance release were reinstructed on proper clearance procedures. For future outages with shutdown cooling operation, these valves will be tagged closed on a separate clearance to prevent recurrence of this situation. This has been addressed procedurally.