NRC FORM 366
(7-77)

U. S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT

CONTROL BLOCK: [ ] (1)

(PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

01 | ILDRS2 (2) | 00-00000-00 (3) | 41111 (4) | (5)
LICENSEE CODE — LICENSE NUMBER — LICENSE TYPE — CAT

CON'T
01 | REPORT SOURCE L (6) | 05000237 (7) | 120778 (8) | 011879 (9)
DOCKET NUMBER — EVENT DATE — REPORT DATE

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

02 During normal operation with "A" recirc pump suction valve OOS open, breaker for pump
03 discharge bypass valve was found thermally tripped. Had LPCI injection into A loop
04 been required during hypothetical accident, small reduction of flow to reactor could
05 have occurred.
06
07
08

09 SYSTEM CODE CB (11) | CAUSE CODE E (12) | CAUSE SUBCODE B (13) | COMPONENT CODE VALVEX (14) | COMP. SUBCODE E (15) | VALVE SUBCODE D (16)

(17) LER/RO REPORT NUMBER: EVENT YEAR 78 | — | SEQUENTIAL REPORT NO. 068 | / | OCCURRENCE CODE 03 | REPORT TYPE L | — | REVISION NO. 0

ACTION TAKEN X (18) | FUTURE ACTION X (19) | EFFECT ON PLANT Z (20) | SHUTDOWN METHOD Z (21) | HOURS (22) 0000 | ATTACHMENT SUBMITTED Y (23) | NPRD-4 FORM SUB. N (24) | PRIME COMP. SUPPLIER N (25) | COMPONENT MANUFACTURER C665 (26)

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

10 Later tests found no anomalies with valve operation. Since valve is infrequently used
11 probable cause was dry packing which led to thermal overload. Packing and stem will
12 be lubricated during next refueling outage.
13
14

15 FACILITY STATUS E (28) | % POWER 093 (29) | OTHER STATUS (30) NA | METHOD OF DISCOVERY A (31) | DISCOVERY DESCRIPTION (32) Operational Event

16 ACTIVITY RELEASED Z (33) | CONTENT OF RELEASE Z (34) | AMOUNT OF ACTIVITY (35) NA | LOCATION OF RELEASE (36) NA

17 PERSONNEL EXPOSURES NUMBER 000 (37) | TYPE Z (38) | DESCRIPTION (39) NA

18 PERSONNEL INJURIES NUMBER 000 (40) | DESCRIPTION (41) NA

79 01290265

19 LOSS OF OR DAMAGE TO FACILITY TYPE Z (42) | DESCRIPTION (43) NA

20 PUBLICITY ISSUED N (44) | DESCRIPTION (45) NA

NRC USE ONLY

R. Coen — NAME OF PREPARER — PHONE: X 265

GPO 917-926

DEVIATION REPORT

Commonwealth Edison

DVR NO. D - 12 - 2 - 78 - 131 (STA UNIT YEAR NO.)

PART 1 TITLE OF DEVIATION

Recirc pump discharge bypass valve

OCCURRED: 12-20-78 (DATE) 1545 (TIME)

SYSTEM AFFECTED: Recirculation Syst. 202

PLANT CONDITIONS: MODE Run, PWR(MWT) 2356, LOAD(MWE) 775

TESTING: YES [ ] NO [X]

DESCRIPTION OF EVENT

2A recirc pp. disch bypass valve (2-202-7A) was found thermally tripped. Valve open at the time To relieve 4" bypass stagnation problem

DESCRIPTION OF CAUSE

Unknown

OTHER APPLICABLE INFORMATION

Breaker was reset ok

EQUIPMENT FAILURE: YES [ ] NO [ ]

DR NO. NA

WR NO. NA

R. Holman — RESPONSIBLE SUPERVISOR — 12-20-78 DATE

PART 2 OPERATING ENGINEERS COMMENTS

B Recirc loop was available for injection by LPCI, with all valves operable. This is also the preferred injection loop. Some bypass flow would occur thru the 7A valve (4") if A loop were selected for injection. However, this should be small in comparison to size of LPCI injection

TYPE OF DEVIATION REPORTABLE OCCURRENCE	EVENT OF POTENTIAL PUBLIC INTEREST	TECH SPEC VIOLATION	NON-REPORTABLE OCCURRENCE	ANNUAL REPORTING	SAFETY-RELATED WR ISSUED
[ ] 14 DAY [ ] 10CFR21 [X] 30 DAY NOTIFICATION 6.6.B.2.b	[ ]	[ ]	[ ]	YES [X] NO [ ]	YES [ ] NO [X]

REPORTABLE OCCURRENCE NUMBER: XX - 78 - 68 03L-0

ACTION ITEM NO.: NA

PROMPT ON-SITE NOTIFICATION

TITLE	DATE	TIME
A. Roberts Asst. Supt.	12/22/78	1300
NA		

24-HOUR NRC NOTIFICATION

	REGION	DATE	TIME
[ ] TPH	NA		
[ ] TGM	NA (REGION III & DOL)		

PROMPT OFF-SITE NOTIFICATION

TITLE	DATE	TIME
F. Palmer	12/22/78	2:18
J.R. Gilliom	12/22/78	2:18

RESPONSIBLE COMPANY OFFICER INFORMED OF 10CFR21 CONDITIONS AND THEIR REPORT TO NRC _____ TITLE _____ DATE _____ TIME _____

REVIEW AND COMPLETED for J. S. Kolanowski — OPERATING ENGINEER — 12/22/78 DATE

ACCEPTANCE BY STATION REVIEW AS REQUIRED: for D. Farkar [signature] 1-18-79 / [signature] 1/18/79

DATE

RESOLUTION APPROVED AND AUTHORIZED FOR DISTRIBUTION: [signature] STATION SUPERINTENDENT — 1-18-79 DATE

88-5176 10-77 (FORM 15-52-1)

JAN 24 1979

line (16"). All four LPCI pumps were available for injection with only three required for design 14,500 GPM flow. Recirc pump suction valves are open and prevented from closing by racking out breaker per G.E. & NRC recommendation to prevent hypothesized suction valve closure.

ATTACHMENT TO LICENSEE EVENT REPORT 78-68/03L-0
COMMONWEALTH EDISON COMPANY (CWE)
DRESDEN UNIT-2 (ILDRS-2)
DOCKET #050-237

During normal operation with "A" recirc pump suction valve out-of-service in the open position, the breaker for the bypass valve around the recirc pump discharge valve was found thermally tripped after the valve opened. The recirc pump suction valves are presently normally kept OOS in the open position to eliminate the possibility of a spurious closure of the valve during a hypothetical loss-of-coolant accident. The recirc pump discharge bypass valves are normally open to prevent stagnation of the water in the bypass line, but the valve had been closed and reopened after an earlier recirc pump trip.

The low pressure coolant injection system would normally inject into the "B" recirc loop during a loss-of-coolant accident, and this loop was unaffected by this event. However, with this breaker tripped, had the low pressure coolant injection (LPCI) loop-select logic system been required to select the "A" recirc loop for LPCI injection, the bypass valve would not have shut upon signal and some of the LPCI flow could have been diverted backwards through the bypass valve, the recirc pump, and its suction valve, into the core annulus region.

Calculations indicate that the flow from the 16 inch diameter LPCI injection line which might have been diverted through the 4 inch diameter bypass valve line was minor. Approximately 2800 gpm could conservatively have been diverted. All four LPCI pumps were operable and each pump is rated at 6000 gpm. Technical Specifications require three LPCI pumps to be operable to deliver the design required 14,500 gpm LPCI flow.

Later testing could not identify any discrepancies with the operation of the bypass valve. Since the valve is infrequently used, the probable cause was dry packing which affected the opening torque and caused the thermal overload condition. Subsequent cycling probably lubricated the packing such that the problem did not reoccur. The valve stem will be lubricated during the next refueling outage.