(7-77) "UPDEATED REPORT - PREVIOUS REPORT SUBMITTED 10-19-83"

LICENSEE EVENT REPORT

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

01 | I L L S C 1 (2) | 0 0 - 0 0 0 0 0 - 0 0 (3) | 4 1 0 0 0 (4) | | (5)
LICENSEE CODE | LICENSE NUMBER | LICENSE TYPE | CAT

CON'T 01 | REPORT SOURCE L (6) | 0 5 0 0 0 3 7 3 (7) | 0 9 3 0 8 3 (8) | 0 2 1 4 8 4 (9)
DOCKET NUMBER | EVENT DATE | REPORT DATE

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

02 On 9-20-83 at 0300 with Unit One in Cold Shutdown, the B RHR Heat Exchanger Outlet
03 Valve failed to open via the motor operator or manually. The inoperability of this
04 valve, while in the closed position, made B shutdown cooling & B suppression pool
05 cooling inoperative. The A shutdown cooling loop was operable to control decay heat.
06 Conservative calculations also indicated the reactor water cleanup system was capable
07 of removing the decay heat at the time of the event.
08

SYSTEM CODE	C F (11)
CAUSE CODE	E (12)
CAUSE SUBCODE	X (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	8 3
SEQUENTIAL REPORT NO.	1 1 7
	/
OCCURRENCE CODE	0 3
REPORT TYPE	X
REVISION NO.	1

ACTION TAKEN	X (18)
FUTURE ACTION	X (19)
EFFECT ON PLANT	Z (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	A 3 9 1 (26)

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

10 It is believed that the valve can become inoperable in the close position due to water
11 being trapped in the bonnet cavity. Since the bonnet cavity does not have a mechanism
12 to vent off the entrapped water for valve opening, the wedge is hydraulically locked
13 on the closed position. At the recommendation of Anchor Darling, Valve Mfg., the valve limit switches were temporarily changed such that the wedge travel is stopped by
14 position and not by torque. This change should allow the entrapped water to vent off during valve opening.

15 FACILITY STATUS R (28) | % POWER 0 0 0 (29) | OTHER STATUS (30) NA | METHOD OF DISCOVERY A (31) | DISCOVERY DESCRIPTION (32) Changing Eq.

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

PERSONNEL EXPOSURES

17 NUMBER 0 0 0 (37) | TYPE Z (38) | DESCRIPTION (39) NA

PERSONNEL INJURIES

18 NUMBER 0 0 0 (40) | DESCRIPTION (41) NA

8403120095 840214
PDR ADOCK 05000373
S PDR

LOSS OF OR DAMAGE TO FACILITY (43)

19 TYPE Z (42) | DESCRIPTION NA

PUBLICITY

20 ISSUED N (44) | DESCRIPTION (45) NA | NRC USE ONLY

NAME OF PREPARER M. A. Peters PHONE: 815/357-6761

IE22

I. LER NUMBER: 83-117/03X-1

II. LASALLE COUNTY STATION: Unit 1

III. DOCKET NUMBER: 050-373

IV. EVENT DESCRIPTION:

On 9-20-83 at 0300 with the unit in cold shutdown, the B RHR Heat Exchanger Outlet Valve (1E12-F003B) failed to open via the motor operator or manually. The inoperability of this valve, while in the closed position, made B shutdown cooling and B suppression pool cooling inoperative.

V. PROBABLE CONSEQUENCES OF THE EVENT:

The A shutdown cooling loop was operable to control decay heat. Conservative calculations also indicated the reactor water cleanup system was capable of removing the decay heat at the time of this event. The safety of the plant and public was not affected by this event.

VI. CAUSE:

The 1E12-F003B is a flex-wedge gate valve manufactured by the Anchor Darling Co. The 1E12-F003B valve was disassembled via work request L27780. The valve internals were inspected by representatives of Anchor Darling Co., Mark Controls Corp., and CECo. The internals were evaluated as extremely good. A wedge to seat rings contact test (Blue Test) indicated approximately 100% contact. While performing Work Request L29638, written to remove and replace the motor operator for the valve internals inspection, the operator motor winding insulation was found to be burnt. The valve was reassembled, motor operator (with a new motor) was replaced, and the valve satisfactorily cycled. The valve subsequently again became locked in the closed position while continuing to test the valve during various conditions of B Shutdown Cooling. It is believed that the valve can become inoperable in the close position due to water being trapped in the bonnet cavity. Since the bonnet cavity does not have a mechanism to vent off the entrapped water for valve opening, the wedge is hydraulically locked in the closed position.

VII. CORRECTIVE ACTION:

At the recommendation of Anchor Darling, the valve limit switches were temporarily changed such that the wedge travel is stopped by position and not by torque. This change would allow the water entrapped in the bonnet cavity to be vented through the upper seat rings to wedge seat as the valve is opened. A temporary system change LAP 240-6 Att. B 1-700-83 and work request L29978 were performed to accomplish the above recommendation. The valve has since been tested without failure several times under different conditions of B RHR Shutdown Cooling. A.I.R. 01-83-67128 has been issued to scrutinize the performance of 1E12-F003B over the next two excursions of the unit to cold shutdown. If the temporary system change to the valve resolves the valve becoming inoperative in the close position, a permanent modification will be made in accordance with Anchor Darling's recommendations.

Prepared by: M. A. Peters

DMB

Commonwealth Edison
LaSalle County Nuclear Station
Rural Route #1, Box 220
Marseilles, Illinois 61341
Telephone 815/357-6761

February 15, 1984

James G. Keppler
Regional Administrator
Region III
U.S. Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, IL 60137

Dear Sir:

Reportable Occurrence Report #81-117/03X-1 Docket #050-373 is being submitted to your office to supersede previously submitted Reportable Occurrence Report #83-117/03L-0, in accordance with NUREG-0161, "Instructions for Preparation of Data Entry Sheets for Licensee Event Report (LER) File"; General Instruction No. 3.

C E Dargent
for G. J. Diedenich
Superintendent
LaSalle County Station

GJD/GW/rg

Enclosure

cc: Director of Inspection & Enforcement
Director of Management Information & Program Control
U.S. NRC Document Management Branch
INPO-Records Center
File/NRC

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