

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)
La Crosse Boiling Water ReactorDOCKET NUMBER (2)
0 5 0 0 0 4 0 9 1 OF 0 2TITLE (4)
Reactor Scram-Control Rod Drive 12 Scram Solenoid, 1B Reserve Feed Breaker Not Closing

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)		
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAMES		DOCKET NUMBER(S)
0	4	2	0	8	5	0	0	8	None		0 5 0 0 0
0	4	2	0	8	5	0	0	8			0 5 0 0 0

OPERATING MODE (9)	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §. (Check one or more of the following) (11)									
1	20.402(b)		20.405(c)		<input checked="" type="checkbox"/> 50.73(a)(2)(iv)		73.71(b)			
POWER LEVEL (10) 0 7 3	20.405(a)(1)(i)		50.36(c)(1)		50.73(a)(2)(v)		73.71(c)			
	20.405(a)(1)(ii)		50.36(c)(2)		50.73(a)(2)(vii)		OTHER (Specify in Abstract below and in Text, NRC Form 365A)			
	20.405(a)(1)(iii)		50.73(a)(2)(ii)		50.73(a)(2)(viii)(A)					
	20.405(a)(1)(iv)		50.73(a)(2)(iii)		50.73(a)(2)(viii)(B)					
	20.405(a)(1)(v)		50.73(a)(2)(iii)		50.73(a)(2)(ix)					

LICENSEE CONTACT FOR THIS LER (12)
NAME
Lynne S. Goodman, LACBWR Operations EngineerTELEPHONE NUMBER
AREA CODE
6 0 8 6 8 9 - 2 3 3 1

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)									
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDs	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDs
X	A	S	O	L	R	4	0	0	N
X	E	A	B	K	R	A	1	8	0

SUPPLEMENTAL REPORT EXPECTED (14)
☐ YES (If yes, complete EXPECTED SUBMISSION DATE)
☒ NOEXPECTED SUBMISSION DATE (15)
MONTH DAY YEAR

ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)

Reactor scrambled from 73 percent power when 1 of the 2 scram solenoid valves on control rod No. 12 failed. Opening of the solenoid resulted in low oil level for that control rod drive mechanism, which is a partial scram signal. During a partial scram, the center 13 control rods are inserted, rendering the reactor subcritical. The 1B Reserve Feed Breaker did not close automatically, resulting in low voltage on the 1B buses. A full scram signal was generated by low voltage at Reactor Building Motor Control Center 1A. The 1B Emergency Diesel Generator started and picked up the 1B Essential Bus loads. The 1B Reserve Feed Breaker was closed by manual operation of the control room switch and the electrical lineup returned to normal.

The spare lower control rod drive mechanism was installed and tested. The scram solenoid on the mechanism which had been in position 12 was replaced. It is believed to have been a random failure. The control switch and control circuit for the 1B Reserve Feed Breaker were checked. Two control switch contact sets were cleaned and adjusted. Similar occurrence: LER 81-13.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/85

FACILITY NAME (1) La Crosse Boiling Water Reactor	DOCKET NUMBER (2) 0 5 0 0 0 4 0 9 8 5 — 0 0 8 — 0 0 0 2 OF 0 2	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			

TEXT (If more space is required, use additional NRC Form 366A's) (17)

At 2052 on April 20, 1985, a reactor (RCT) scram occurred from 73% power. The "first-out" alarm (ANN) on the scram annunciator panel was "Control Rod Accumulator Oil Level Low". Low oil level in any control rod (AA) drive mechanism's (75) accumulator causes a partial scram. During a partial scram, the center 13 control rods (ROD) insert, rendering the reactor subcritical. Two other alarms annunciated on the scram panel (PL) were "2400V Bus 1B Voltage Lo" and "Reactor Building Motor Control Center 1A Voltage Low". The latter causes a full scram, which fully inserted all the control rods. The reason for the undervoltage condition on the 1B buses (EA,EC) was that Breaker (BKR) 252 R1B, the 1B Reserve Feed Breaker, did not automatically close when the 1B Main Feed Breaker opened. The 1B Emergency Diesel Generator (EDG) (EK)(DG) started automatically and assumed the 1B Essential Bus load.

The operators were able to close the 1B Reserve Feed Breaker from the control room (NA) by turning the breaker control switch to trip, then to close. At 2059, the 1B Essential Bus was returned to its normal feed. At 2105, the 1B EDG was secured.

Troubleshooting determined that one of the scram solenoids (SOL) on the control rod drive mechanism in position 12 did not pick up when the scram condition was reset. Each mechanism has 2 redundant scram solenoids. When a scram signal is generated, the solenoids de-energize, allowing hydraulic fluid in an accumulator (ACC) to flow to the scram motor (MO) on each drive. When the solenoid burnt out, it provided a flow path for the hydraulic fluid, resulting in a low oil level condition in the accumulator and thus, the reactor scram.

The lower control rod drive mechanism in position 12 was replaced with the spare. The scram solenoid in the mechanism which had been in position 12 was replaced and the mechanism was bench tested. This is believed to have been a random failure.

The control switch (HS) contact alignment and control circuit wiring for the 1B Reserve Feed Breaker was checked to be as per drawings. It is believed that the control switch contacts may not have made up properly when the plant electrical load was switched to the main feeds during power escalation on April 17, 1985. Preventive maintenance had been performed on Breaker 252 R1B on April 10, during the refueling outage. On April 27, another scram occurred (Refer to LER 85-11). The 1B Reserve Feed Breaker functioned properly. Two sets of control switch contacts were cleaned, lubricated and adjusted. The breaker was cycled several times locally in the test position and from the control room and observed to operate properly. A similar incident was described in LER 81-13.



COOPERATIVE • P.O. BOX 817 • 2615 EAST AV. SOUTH • LA CROSSE, WISCONSIN 54601

(608) 788-4000

May 16, 1985

In reply, please
refer to LAC-10855

DOCKET NO. 50-409

Document Control Desk
U. S. Nuclear Regulatory Commission
Washington, DC 20555

SUBJECT: DAIRYLAND POWER COOPERATIVE
LA CROSSE BOILING WATER REACTOR (LACBWR)
PROVISIONAL OPERATING LICENSE NO. DPR-45
LICENSEE EVENT REPORT NO. 85-08

Reference: 10 CFR 50.73

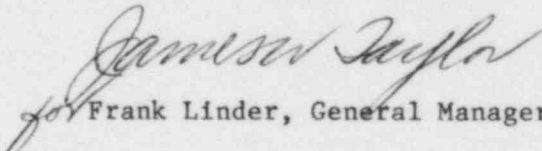
Gentlemen:

In accordance with 10 CFR 50.73, attached is Licensee Event Report
No. 85-08.

If there are any questions, please contact us.

Sincerely,

DAIRYLAND POWER COOPERATIVE


for Frank Linder, General Manager

FL:LSG:sks

Attachment

cc: J. G. Keppler, NRC Region III
NRC Resident Inspector
D. Sherman, ANI Library
Richard Dudley, LACBWR Project Manager
INPO

WP6.20.1

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