

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Dresden Nuclear Power Station Unit 2 DOCKET NUMBER (2) 0 5 0 0 0 2 3 7 PAGE (3) 1 OF 3

TITLE (4) Loss of Feeder Breaker Position Indication From Bus 29 to Bus 29-7

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 NUMBER(S)		DOCKET NUMBER(S)
06	26	84	84	010		00	07	24	84		0 5 0 0 0
											0 5 0 0 0

OPERATING MODE (9) N

POWER LEVEL (10) 01015

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more of the following) (11)

20.402(b)	20.406(a)	50.73(a)(2)(iv)	73.71(b)
20.406(a)(1)(i)	50.73(a)(1)	50.73(a)(2)(v)	73.71(a)
20.406(a)(1)(ii)	50.73(a)(2)	X 50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 388A)
20.406(a)(1)(iii)	X 50.73(a)(2)(i)	50.73(a)(2)(viii)(A)	
20.406(a)(1)(iv)	50.73(a)(2)(ii)	50.73(a)(2)(viii)(B)	
20.406(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(ix)	

LICENSEE CONTACT FOR THIS LER (12)

NAME Gerald W. Bergan (X-529) TELEPHONE NUMBER 8115 914121-12191210

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFAC-TURER	REPORTABLE TO NPROS	CAUSE	SYSTEM	COMPONENT	MANUFAC-TURER	REPORTABLE TO NPROS
X	EID	IHS	G1080	N					

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE) X NO

EXPECTED SUBMISSION DATE (15)

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

During a unit start-up, feeder breaker position indication in the control room was lost on the breaker at Bus 29 which feeds MCC 28-7 and 29-7. A second breaker is located at MCC 29-7; both operate off a single control switch in the control room. Following a light bulb integrity check, an operator was sent to reset the breaker at MCC 29-7. This seemed to be the correct choice based on the control room layout of breaker indication. The breaker at MCC 29-7 was inadvertently tripped, isolating MCC 28-7 and 29-7 and causing LPCI to be inoperable. A GSEP unusual event was declared. Two attempts at this time to energize MCC 28-7 and 29-7 failed. It was now evident that the breaker with no indication was at Bus 29. While preparing to use the alternate feed from Bus 28, the normal feed control switch from Bus 29 was placed in pull-to-lock. An open breaker position light appeared for the breaker at Bus 29 and breaker control returned. The NSO closed the control switch from Bus 29 and re-energized MCC 28-7 and 29-7. All breaker indications appeared normal. Subsequent investigation revealed a loose wire on the breaker control switch at the 902-8 panel causing an intermittent loss of breaker indication and breaker control. The total elapsed time for this event was approximately 28 minutes.

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		8 4	0 1 0	0 0 0	0 2	OF	0 3

TEXT (if more space is required, use additional NRC Form 365A) (17)

At approximately 2040 hours on June 26, 1984, with Unit 2 in the startup mode and critical, the Unit 2 NSO noticed that the position indicating lights for what he believed to be the MCC 29-7 feedbreaker from Bus 29 was not illuminated on Control Room panel 902-8. There are dual feedbreakers from Bus 29 to MCC 29-7 from a single control switch on panel 902-8 in the Control Room. The NSO immediately verified that the problem was not in the lamp, as the light bulbs were replaced. An Equipment Attendant (EA) was immediately dispatched to MCC 29-7 with instructions to reset the feedbreaker at approximately 2045. The EA mistakenly pushed the trip button on the breaker which resulted in a breaker trip. It should be noted that up to this point, despite the loss of feedbreaker indication in the Control Room, MCC's 28-7 and 29-7 had not lost power. A GSEP Unusual Event was declared because control power was lost to both LPCI injection valves (MO 2-1501-21 A & B) causing LPCI to become inoperable.

When the MCC 29-7 feedbreaker was manually tripped, MCC's 28-7/29-7 de-energized. The NSO immediately tried to reclose the breaker from Bus 29 to MCC 29-7 but could not. An attempt was also made to close in the alternate feed from Bus 28 to MCC 28-7. The breakers would not close. At this point in time, MCC's 28-7/29-7 were dead and could not be re-energized by either the normal Bus 29 or the alternate Bus 28. The only breaker closed was the breaker at Bus 29. It was now evident that the breaker with no indication was at Bus 29, and that the EA had been sent to the wrong breaker.

While preparing for a second attempt to close the alternate feedbreakers, the normal feedbreaker from Bus 29 was put into the pull-to-lock position. The NSO noted that the open breaker position light appeared for the breaker at Bus 29 and that breaker control returned from Bus 29 to MCC 29-7. The NSO immediately closed the control switch from Bus 29 and re-energized MCC 29-7/28-7 at 2108 hours. Breaker indication for Bus 29 to MCC 29-7 was observed closed.

Upon investigation, a loose wire was found on the breaker control switch at the 902-8 panel which caused intermittent loss of breaker indication at Bus 29 and loss of breaker control. Operations personnel assumed that the feedbreaker at MCC 29-7 tripped, based on the fact that schematically on the 902-8 panel, the breaker position closest to MCC 29-7 had no indication; breaker position indicating lights on panel 902-8 were not labeled. As a result, the EA was sent to the wrong breaker. He then proceeded to inadvertently trip the breaker at MCC 29-7 which previously was indicating closed on panel 902-8. One breaker control switch controls the operation of both breakers and has separate indication for both breakers.

Another factor contributing to this event was the control logic for the feedbreaker pair from Bus 28 and Bus 29. As designed, there is an interlock such that if the Bus 29 or 28 feedbreaker trips, it will trip the associated MCC feedbreaker. The logic also provides that if the Bus 28 or 29 feedbreaker is closed and the associated MCC feedbreaker is opened, as in this event, the alternate supply breaker will not close on to the dead bus.

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TEXT (if more space is required, use additional NRC Form 366A's (1))

MCC's 28-7/29-7 are normally powered from Bus 29. Only upon loss of voltage on Bus 29 (Div. II) would the MCC's automatically transfer to Bus 28 (Div. I). The auto throwover requires operation of two breakers in series. This interlock is provided to prevent automatic bus transfer in the event of a single failure. This breaker logic is arranged to prevent closing in the alternate feed to a faulted motor control center.

This logic was reviewed and found acceptable under SEP Topic VI-7 C.1, Appendix K per D.M. Crutchfield to L. DelGeorge letter dated February 5, 1982, Section V-B.8.

Corrective actions as a result of this event consist of the following:

1. An investigation as to the cause of the event by the Electrical Maintenance Department found a loose wire on the 902-8 panel. This problem was corrected.
2. Operator training is being conducted to ensure all Operations personnel understand fully the breaker logic and limitations.
3. The indication lights on the 902-8 panel have been labeled to eliminate the confusion as to which light represents which breaker.
4. A warning sign will be placed on the incoming feedbreaker for each of the MCC's involved to warn personnel that tripping the MCC feedbreakers without tripping the bus feedbreaker first will result in a loss of the MCC's.



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July 24, 1984

DJS Ltr #84-727

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

Licensee Event Report #84-010-0, Docket #050-237 is being submitted as required by Technical Specification 6.6, NUREG 1022 and 10 CFR 50.73 (a)(2)(i).

D.J. Scott
Station Superintendent
Dresden Nuclear Power Station

DJS/kjl

Enclosure

cc: J. J. Keppler, Regional Administrator, Region III
File/NRC
File/Numerical

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