

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 2		
TITLE (4) Reactor Scram During Undervoltage Tests (DOS 6600-6)																
EVENT DATE (5)			LER NUMBER (8)				REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)						
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAMES				DOCKET NUMBER(S)			
									N/A				0 5 0 0 0			
0 2	1 7	8 5	8 5	0 0 6	0 0	0 3	1 4	8 5	N/A				0 5 0 0 0			
OPERATING MODE (9)		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5: (Check one or more of the following) (11)														
N		20.402(b)				20.406(e)				X 80.73(a)(2)(iv)				73.71(b)		
POWER LEVEL (10)		20.406(a)(1)(i)				80.38(a)(1)				80.73(a)(2)(v)				73.71(c)		
0 1 0 1 0		20.406(a)(1)(ii)				80.38(a)(2)				80.73(a)(2)(vi)				OTHER (Specify in Abstract below and in Text, NRC Form 366A)		
		20.406(a)(1)(iii)				80.73(a)(2)(i)				80.73(a)(2)(vii)(A)						
		20.406(a)(1)(iv)				80.73(a)(2)(ii)				80.73(a)(2)(vii)(B)						
		20.406(a)(1)(v)				80.73(a)(2)(iii)				80.73(a)(2)(x)						
LICENSEE CONTACT FOR THIS LER (12)																
NAME Mark Leahy										TELEPHONE NUMBER AREA CODE 8 1 5 9 4 2 - 2 9 2 1 0						
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)																
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS						
A				N												
SUPPLEMENTAL REPORT EXPECTED (14)												EXPECTED SUBMISSION DATE (15)		MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE)												X NO				

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

With the unit shutdown for refueling, the breaker for feed from transformer 22 to bus 23 was opened per DOS 6600-6 (Bus Undervoltage and ECCS Integrated Functional Test for 2(3) Diesel Generator). The expected half-scrum was received on RPS Channel B due to loss of power. However, Channel A also received a half-scrum on reactor water low level, causing a full scrum.

As a part of the Environmental Qualification modification, the reactor water low level relays and switches were replaced, and trip units added. During the design of this change, the RPS power supply system divisions to the trip units were crossed, due to a misunderstanding, on the part of the Architect Engineer, of the power supply divisionalization. This error was not identified in reviews by the Station Nuclear Engineering Department and station personnel. With this error made, when Channel B power was disrupted, the Channel A reactor water low level switches also opened, creating the Channel A half-scrum and the full scrum.

To correct this problem, the power supplies will be redesigned, rewired, and functionally tested.

8503250379 850314
PDR ADOCK 05000237
S PDR

IE22 1/1

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/85

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (5)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
Dresden Nuclear Power Station, Unit 2	0500023785	—	006	—	00	02	OF 02

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

With the unit shutdown for refueling, the breaker for feed from transformer 22 to bus 23 was opened for DOS 6600-6 (Bus Undervoltage and ECCS Integrated Functional Test for 2(3) Diesel Generator). This resulted in the expected half-scam on RPS Channel B when the power to MCC 25-2 (RPS Reserve Power Supply) was cut off. Simultaneously, an unexpected half-scam occurred on Channel A when the reactor water low level relays on sub-channels A and C dropped out on loss of power to their trip units, causing a full scam. Safety significance is minimal, as the full scam did occur. The switch's scam function was not impaired. Rather the error made the logic more conservative. This is the first reportable occurrence of this type at Dresden Station.

The event was caused by improper design by the Architect-Engineer, coupled with a design review which was not extensive enough on the part of CECO's Station Nuclear Engineering Department and the station. As a part of the Environmental Qualification modification, the reactor water level transmitters and switches were replaced. The divisionalization of the power supply systems for the new reactor water level trip units were crossed in the design, due to a misunderstanding on the part of the Architect Engineer. Thus, when power was taken off of RPS Channel B, the expected Channel B half-scam occurred, but RPS bus Channel A also tripped on simulation of low water level due to loss of power to the reactor water level trip units.

To correct this problem, the power supplies will be redesigned, rewired, and functionally tested. In addition, a schematic verification was made of other work performed by this Architect Engineer.



Commonwealth Edison
Dresden Nuclear Power Station
R.R. #1
Morris, Illinois 60450
Telephone 815/942-2920

March 14, 1985

DJS Ltr #85-288

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

Licensee Event Report #85-006-0, Docket #050237 is being submitted as required by Technical Specification 6.6, NUREG 1022 and 10 CFR 50.73 (a)(2)(iv).

D.J. Scott
Station Superintendent
Dresden Nuclear Power Station

DJS/kjl

Enclosure

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

IE22
1/1