



Commonwealth Edison

Dresden Nuclear Power Station

R.R. #1

Morris, Illinois 60450

Telephone 815/942-2920

July 15, 1992

CWS LTR #92-412

U.S. Nuclear Regulatory Commission
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Licensee Event Report 92-19, Docket 050237 is being submitted as required
by Technical Specification 6.6, NUREG 1022 and 10 CFR 50.73(a)(2)(V)(D).

L. F. Gerner for 7/17/92

Charles W. Schroeder
Station Manager
Dresden Nuclear Power Station

CWS/cfq

Enclosure

cc: A. Bert Davis, Regional Administrator, Region III
NRC Resident Inspector's Office
File/NRC
File/Numerical

(ZDVR/675)

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LICENSEE EVENT REPORT (LER)

Form Rev 2.0

Facility Name (1) Dresden Nuclear Power Station, Unit
 Docket Number (2) 0 | 5 | 0 | 0 | 0 | 2 | 3 | 7
 Page (3) 1 | of | 0 | 4

Title (4) Containment Spray Interlock Momentarily Inoperable Due to Surveillance Testing with 2/3 Diesel Generator Inoperable

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	6	2	4	9	2	9	2	0	7	1	5	9	2	Dresden Unit 3	0 5 0 0 0 2 4 9

OPERATING MODE (9) N

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

20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)
20.405(a)(1)(i)	50.36(c)(1)	X 50.73(a)(2)(v)	73.71(c)
20.405(a)(1)(ii)	50.36(c)(2)	50.73(a)(2)(vii)	Other (Specify
20.405(a)(1)(iii)	50.73(a)(2)(i)	50.73(a)(2)(viii)(A)	in Abstract
20.405(a)(1)(iv)	50.73(a)(2)(ii)	50.73(a)(2)(viii)(B)	below and in
20.405(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(x)	Text)

LICENSEE CONTACT FOR THIS LER (12)

Name: J. Rund, Operations Staff
 Telephone Number: 8 | 1 | 5 | 9 | 4 | 2 | - | 2 | 9 | 2 | 0
 Ext. 3526

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

CAUSE	SYSTEM	COMPONENT	MANUFAC-TURER	REPORTABLE TO NPRDS	CAUSE	SYSTEM	COMPONENT	MANUFAC-TURER	REPORTABLE TO NPRDS

SUPPLEMENTAL REPORT EXPECTED (14)

Expected Submission Date (15) X | NO

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

At 1430 hours on June 24, 1992, with Units 2 and 3 both at 70% power, it was discovered that the 2/3 core height containment spray interlock had been rendered inoperable for a short period due to a surveillance testing conflict. This interlock prevents diversion of Low Pressure Coolant Injection (LPCI) flow for containment spray purposes unless at least 2/3 core coverage has been achieved under loss of coolant accident conditions. This was of minimal safety significance because these interlocks are provided with Control Room keylock switches which are procedurally controlled; therefore, the Operators had full control over the LPCI injection/containment spray configurations at all times. Corrective actions include enhanced procedures and training.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

Form Rev 2.0

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)				Page (3)		
		Year	Sequential Number	Revision Number				
Dresden Nuclear Power Station	0 5 0 0 0 2 3 7	9 2	- 0 1 9	- 0 0	0 2	OF	0 4	

TEXT Energy Industry Identification System (EIIS) codes are identified in the text as [XX]

PLANT AND SYSTEM IDENTIFICATION:

General Electric - Boiling Water Reactor -2527 Mwt rated core thermal power.

Nuclear Tracking System (NTS) tracking code numbers are identified in the text as (XXX-XXX-XX-XXXX).

EVENT IDENTIFICATION:

2/3 Core Height Containment Spray Interlock Momentarily Inoperable due to Surveillance Testing while the Unit 2/3 Emergency Diesel Generator (EDG) [EK] was out of service.

A. CONDITIONS PRIOR TO EVENT:

Unit(s): 2(3) Event Date: June 24, 1992 Event Time: 1430 Hours
 Reactor Mode(s): N(N) Mode Name(s): Run(Run) Power Level(s): 70%(70%)
 Reactor Coolant System (RCS) Pressure(s): 999(999) psig

B. DESCRIPTION OF EVENT:

On June 24, 1992, at 1430 hours, it was determined that a Limiting Condition for Operation (LCO) Technical Specification (TS) Table 3.2.2, (Instrumentation that Initiates or Controls the Core and Containment Cooling System) had been exceeded for the 2/3 Core Height Containment Spray Interlock requirement.

On June 24, 1992, from 0128 hours to 0132 hours on Unit Two, and from 0206 hours to 0208 hours on Unit Three, the Instrument Maintenance Department successfully performed a functional test on Containment Spray Interlock (2/3 core height) Analog Trip System (ATS) Master Trip Unit (MTU) 263-149B. This was accomplished by utilizing the appropriate sections of Dresden Instrument Surveillance (DIS) 1500-3, Reactor Water Level - 2/3 Core Height Master Trip Unit and Fuel Zone Level Indication Calibration. The functional test consists of interrupting the normal reactor water level signal to the MTU and providing it with a simulated signal. The MTU is then verified to actuate the 2/3 core height interlock at the correct milliamp signal which corresponds to 2/3 core height of reactor water level.

The Unit 2/3 EDG has been placed out of service on June 22, 1992, at 0035 hours, for routine maintenance. The performance of DIS 1500-3 effectively rendered both Division I and Division II Containment Spray Interlocks inoperable. The Division II MTUs of each unit were made inoperable by the performance of the instrument surveillance. The Division I MTUs for each unit were previously considered inoperable because of the Unit 2/3 EDG outage per the requirements of TS 3.0.B, which states in part. . .

"When a system, subsystem, train, component, or device is determined to be inoperable solely because its emergency power source is inoperable, or solely because its normal power source is inoperable, it may be considered operable for the purpose of satisfying the requirements of its applicable Limiting Condition for Operations, provided: (1) its corresponding normal or emergency power source is operable; and (2) all of its redundant system(s) subsystem(s), train (s), component(s), and device(s) in the other division are operable, or likewise satisfy the requirements of this specification. Unless both conditions (1) and (2) are satisfied, the Unit shall be placed in the least hot shutdown within 12 hours and in at least cold shutdown within the following 24 hours."

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

Form Rev 2.0

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			Page (3)		
		Year	Sequential Number	Revision Number			
Dresden Nuclear Power Station	0 5 0 0 0 2 3 7	9 2	- 0 1 9	- 0 0	0 3	OF	0 4

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In preparation for the Unit 2/3 EDG outage, actions had been taken to ensure the requirements of TS Table 3.2.2 and TS 3.0.B were met. On June 19, 1992, Technical Specification Interpretation #15 was issued, titled: "Equipment Operability Requirements for Technical Specification 3.0.B". On June 20, 1992, Operating Order #19-92 had been issued to provide a checklist of support equipment which would be required to be maintained operable during the Unit 2/3 EDG outage. Prior to the Unit 2/3 EDG coming out of service, the Unit 2 Operating Engineer, the Instrument Maintenance Lead Scheduler, and a Work Planning representative held meetings to screen surveillances and Nuclear Work Requests from the 3-Day Rolling Schedule which would affect equipment required per TS 3.0.B and TS Table 3.2.2. On June 23, 1992, the 2/3 core height instrument maintenance surveillance was removed from the 3 Day Rolling Schedule by the Instrument Maintenance Lead Scheduler. A note was then placed on the June 24, 1992, Instrument Maintenance Department Shift One Daily Turnover Sheet which stated that this surveillance cannot be done at this time because of the EDG outage.

C. APPARENT CAUSE OF EVENT:

This report is being submitted in accordance with 10CFR50.73(a)(2)(V)(D), which requires the reporting of any event or condition that alone could have prevented the fulfillment of the safety function of systems needed to mitigate the consequences of an accident.

The root causes of this Technical Specification violation are personnel error and management deficiency and are as listed below.

1. On June 23, 1992, at approximately 2300 hours, The Instrument Maintenance Department First Line Supervisor (IMD/FLS) utilized the Shift One Daily Turnover Sheet to conduct a beginning of shift briefing with the crew and assign work. However, the IMD/FLS misunderstood the note to indicate that there were physical barriers which would prevent completion of DIS 1500-3. The note was also not passed on to the Instrument Maintenance Department Control Systems Technician (IMD/CST) and Helper who were assigned the ATS surveillance for June 24, 1992, which included the 2/3 core height instruments and three other surveillances.
2. The SCRE and his Shift Engineer were not aware that surveillances had been dropped from the 3-Day Rolling Schedule due to the 2/3 EDG outage. Operating Engineer Daily Orders had not indicated the dropping of surveillances, but had focused on the Technical Specification Interpretation of TS 3.0.B and the use of the checklist contained in Operating Order #19-92.
3. The issuance of Operating order #19-92 and Technical Specification Interpretation #15 was in response to a change in management policy which now considers functional check surveillances to actually render equipment in a degraded condition. Therefore, Safety Related instrumentation and machinery would by definition not be available for service during the time frame of the functional check. Past policy had permitted the performance of short duration surveillances such as DIS 1500-3. This change in policy was not adequately communicated to all applicable personnel prior to the Unit 2/3 EDG being taken out of service.

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Dresden Nuclear Power Station	0 5 0 0 0 2 3 7	9	2	-	0	1	9	-	0	0	0	4	OF	0	4

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D. SAFETY ANALYSIS OF EVENT:

The safety significance of having the 2/3 Core Height Containment Spray Interlock technically inoperable on Unit 2 for four minutes and on Unit 3 for three minutes is minimal.

The 2/3 core height containment spray interlock trip is fed from the Reactor Water Level Fuel Zone transmitters, 2(3)-263-73A and 73B. The Reactor Water Level Fuel Zone range is from -340 inches to +60 inches. The 2/3 core height containment spray interlock trip occurs at a TS setpoint of -191 inches. (All level data are based on instrument zero reference, which is 143 inches above the top of active fuel.)

The 2/3 core height containment spray interlock trip prevents the inadvertent initiation of the containment spray (drywell or torus) and/or the full flow test/torus cooling functions of the Low Pressure Coolant Injection (LPCI) system during postulated loss of coolant accident conditions when reactor inventory is less than or equal to -191 inches. The interlock insures that the LPCI system is not diverted from the reactor vessel until an inventory of greater than 2/3 core height has been restored. The containment spray function of LPCI must be manually initiated by the Operator. A manual override switch also exists to bypass the 2/3 core height interlock.

The performance of DIS 1500-3 took less than 5 minutes for each Unit. During this time a less than 2/3 core height trip signal was present even though reactor water level was above 2/3 core height. This would have prevented the ability to spray containment unless the Operator used the manual override switch. The use of the manual override switch is administratively controlled by the Dresden Operating Procedures and Emergency Operating Procedures. In addition, the Division I LPCI system was available as long as offsite power was available. Therefore the safety significance of this event is considered minimal.

E. CORRECTIVE ACTIONS:

1. The Instrument Maintenance First Line Supervisor involved has been counselled in regards to maintaining an inquisitive and questioning philosophy towards the performance of routine surveillances.
2. Operating Order #19-92 will be proceduralized by the Operations Staff by February 26, 1993, and enhanced to include surveillance procedures which affect the listed equipment that must be maintained operable during an EDG outage (237-200-92-12001).
3. This event will be reviewed beginning with the current cycle of Licensed Operator Continuing Training, and reviewed on an annual basis thereafter (237-200-92-12002). The following items will be covered;
 - a. The recent policy change in regards to how functional check surveillances render equipment inoperable regardless of the duration of time involved.
 - b. The purpose and utilization of Operating Order #19-92.

F. PREVIOUS OCCURRENCES:

No similar events are known to have occurred.

G. COMPONENT FAILURE DATA:

There were no component failures during this event; therefore, this section does not apply.