



Commonwealth Edison
Dresden Nuclear Power Station
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September 08, 1993

GFSLTR 93-0064

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

License Event Report 93-015, Docket 050249 is being submitted as required by Technical Specification 6.6, NUREG 1022 and 10 CFR 50.73(a)(2)(ii)(B).

Atkinson for 9-8-93

Gary F. Spedl
Station Manager
Dresden Station

GFS\slb

Enclosure

cc: J. Martin, Regional Administrator, Region III
NRC Resident Inspector's Office
File/NRC
File/Numerical

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LICENSEE EVENT REPORT (LER)

Form Rev 2.0

Facility Name (1) Dresden Nuclear Power Station, Unit 3				Docket Number (2) 0 5 0 0 0 2 4 9				Page (3) 1 of 0 3			
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Title (4)
A & B CCSW Pumps Only Producing 6000 Gallons Per Minute

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	8	1	1	9	3	9	3	—	0	1	5	—	0	0	0	9	0	8	9	3	N/A				

OPERATING MODE (9) N
THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10CFR (Check one or more of the following) (11)

POWER LEVEL (10) 1 0 0	20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)
	20.405(a)(1)(i)	50.38(c)(1)	50.73(a)(2)(v)	73.71(c)
	20.405(a)(1)(ii)	50.38(c)(2)	50.73(a)(2)(vi)	Other (Specify in Abstract below and in Text)
	20.405(a)(1)(iii)	50.73(a)(2)(i)	50.73(a)(2)(vii) (A)	
	20.405(a)(1)(iv)	X 50.73(a)(2)(ii)	50.73(a)(2)(viii) (B)	
	20.405(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(x)	

LICENSE CONTACT FOR THIS LER (12)

NAME Nicos P. Digrindakis, System Engineer						TELEPHONE NUMBER Ext. 3584					
AREA CODE 8 1 5						9 4 2 - 2 9 2 0					

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS

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)

On August 11, 1993 at 0914 while performing a special procedure on the Unit 3 Containment Cooling Service Water system it was determined that the Unit 3 "A" and "B" CCSW pumps could produce a combined flow of only 6000 gpm. Table 6.2.4.1 of the Dresden FSAR requires a CCSW Loop flow of 7000 gpm. The Station administratively entered the LCO for 1 CCSW subsystem inoperable. This LCO allows continued operation for seven days. On August 16, 1993 at 0931 the 3-1501-3B valve (the flow control valve for the "B" loop of the Unit 3 CCSW system) was stroked to verify proper valve travel. This valve would not fully open. The Station administratively entered the LCO for 2 CCSW subsystems inoperable. This LCO requires the reactor to be in cold shutdown within 24 hours. The Station requested and was granted enforcement discretion so that Unit 3 be allowed to continue to operate until August 25, 1993, in order to allow time to procure, install and test the flow control valve component which is causing the degraded flow condition. The root cause of the degraded flow on both Unit 3 Containment Cooling loops was the original design drawing for the 3-1501-3A(B) valves states that valve has its maximum flow at a stroke of 2 inches. Consequently, the valve actuator was designed for a valve with a 2 inch maximum stroke. The safety significance of the degraded flow condition is minimal based on the containment analysis performed in December 1992 and service water inlet temperature was 77 F and Suppression pool temperature was 83 F, which are significantly below the analysis input values of 95 F. Corrective actions included repairing the valve actuator to allow full stroke and verifying loop flows of 7000 gpm following this repair.

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

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

C. APPARENT CAUSE OF EVENT:

This report is being submitted in accordance with 10CFR50.73 (a)(2)(ii)(B), which requires the reporting of any event or condition that resulted in the condition of the nuclear power plant, including its principal safety barriers, being seriously degraded, or that resulted in the nuclear power plant being in a condition that was outside the design basis of the plant.

The root cause of the degraded flow on both Unit 3 Containment Cooling loops was the original design drawing for the 3-1501-3A(B) valves. This drawing states that valve has its maximum flow at a stroke of 2 inches when the actual full stroke is 2 1/2". Consequently, the mechanical dial position indicator (MDPI) of the valve actuator was designed for a valve with a 2 inch maximum stroke. This part (the MDPI) could not allow the valve to open remotely any further than 2 inches and thus would not allow Unit 3 CCSW to achieve its full flow capability (7000 gpm).

D. SAFETY ANALYSIS OF EVENT:

The safety significance of the degraded flow condition is minimal. This determination is based on the containment analysis performed in December 1992 and submitted to NRR for review in March of 1993. The potential consequences to subsystem operation with less than design basis flow is a slightly higher long term peak containment temperature and pressure. The August 17, 1993 service water inlet temperature was 77°F and Suppression pool temperature was 83°F, which are significantly below the analysis input values of 95°F. The resultant temperatures and pressures are below those used in the calculations for determining atmospheric release and leakage across the containment cooling heat exchanger tubes. Therefore, this temperature and pressure provide sufficient margin to containment design temperature and pressure limits, provide for adequate NPSH for the ECCS pumps and provide sufficient differential pressure across the containment cooling heat exchanger to preclude containment release to the public waterways.

E. CORRECTIVE ACTIONS:

The Electrical Maintenance Department (EMD) replaced the mechanical dial position indicator (MDPI) of the valve actuator and successfully stroked the 3-1501-3A and 3-1501-3B valves to their full open position using electrical controls.

The Operating Department then demonstrated that 7000 gpm could be achieved on both CCSW loops/subsystems. At 0410 hours on August 21, 1993 both loops were declared operable and the associated limiting condition for operation (LCO) was lifted.

F. PREVIOUS OCCURRENCES:

<u>LER/Docket Numbers</u>	<u>Title</u>
NONE	

G. COMPONENT FAILURE DATA:

<u>Manufacturer</u>	<u>Nomenclature</u>	<u>Model Number</u>	<u>Mfg. Part Number</u>
NONE			