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Dresden Nuclear Power Station
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July 29, 1993

GFSLTR #: 93-0028

U.S. Nuclear Regulatory Commission
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Licensee Event Report 93-014, Docket 050237 is being submitted as required by Technical Specification 6.6, NUREG 1022 and 10CFR 50.73(a)(2)(i)B.

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

(p:\plntmgr\gfs93\0028.93)

IE22

LICENSEE EVENT REPORT (LER)

Form Rev 2.0

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

Title (4)

Drywell Equipment Drain Sump (DWEDS) Pumping Interval Exceeded Due to Sump Pumps Tripping Thermally

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 7	0 8	9 3	9 3	--- 0 1 4	--- 0 0				N/A	
									N/A	

OPERATING MODE (9)	N	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIRMENTS OF 10CFR (Check one or more of the following) (11)									
POWER LEVEL (10)	0 8 8		20.402(b)		20.405(c)		50.73(a)(2)(iv)		73.71(b)		
			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)		
			20.405(a)(1)(iii)	X	50.73(a)(2)(i)		50.73(a)(2)(viii) (A)				
			20.405(a)(1)(iv)		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	TELEPHONE NUMBER
Timothy R. Murphy, Radwaste System Engineer Ext. 2244	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
X	B D	P	A 5 9 0	N					
X	B D	M O	G 0 8 0	N					

SUPPLEMENTAL REPORT EXPECTED (14)			Expected Submission Date (15)	Month	Day	Year
X	Yes (If yes, complete EXPECTED SUBMISSION DATE)	NO		0 4	0 1	9 5

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

On July 8, 1993 at 0900 hours a 24-hour Shutdown Limiting Condition for Operation (LCO) was initiated because drywell leakage could not be quantified. The Drywell Equipment Drain Sump (DWEDS) pumps tripped thermally prior to reaching the low level cutout point during the 0800 hours pump down evolution. Per Technical Specification 4.6.D.1 and 3.6.D.1. the drywell sumps must be pumped down every 4 hours and drywell leakage quantified. Because the pumps were tripping thermally, the control switches were placed in Pull-To-Lock (PTL) and the DWEDS allowed to fill until it overflowed to the Drywell Floor Drain Sump (DWFDS). At 1800 hours the DWFDS was pumped down and drywell leakage was determined to be 2 gallons per minute, the same as before the DWEDS pumps tripped thermally. At 1815 hours the LCO was terminated. Subsequent pumping of the DWFDS quantified total drywell leakage to be 2 gallons per minute.

This event had minimal safety significance because there were no abnormal inputs to the DWEDS during this time frame. Once the DWEDS pump control switches were placed in PTL, any significant drywell leakage would have been indicated by the DWFDS level alarms. It is believed that some type of foreign object is restricting the DWEDS pumps suction causing the breakers to trip thermally. Currently the DWEDS pumps are being operated to clear the high-high level alarm and every 4 hours the DWEDS pumps are operated to clear the high level alarm. In this way drywell leakage is quantified and Technical Specifications are fully met. The DWEDS pumps breakers still trip thermally on occassion when pumping to clear the high level alarm every 4 hours. When a Unit 2 shutdown permits a drywell entry, the DWEDS pumps will be removed per Station Work Requests and the DWEDS cleaned as required.

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-XXXXX)

EVENT IDENTIFICATION:

Drywell Equipment Drain Sump (DWEDS) Pumping Interval Exceeded Due to Sump Pumps Tripping Thermally

A. CONDITIONS PRIOR TO EVENT:

Unit: 2 Event Date: July 8, 1993 Event Time: 0900 hours

Reactor Mode: N Mode Name: R Power Level: 88%

Reactor Coolant System (RCS) Pressure: 940 psig

B. DESCRIPTION OF EVENT:

On July 8, 1993 at 0800 hours with Unit 2 operating at 88% core thermal power, the Drywell Equipment Drain Sump (DWEDS) was pumped per Technical Specification 4.6.D.1. During this evolution both the 'A' and 'B' DWEDS pumps breakers tripped thermally. The breakers had tripped thermally previously on July 3, 1993 at 0800 hours. There were no other components associated with the DWEDS inoperable at the time that could have contributed to this event. The DWEDS pumps control switches were placed in Pull-To-Lock (PTL) which would allow the DWEDS to fill until it overflowed into the Drywell Floor Drain Sump. At 0900 hours, since the DWEDS leakage had not been quantified per Technical Specification 3.6.D.1., a 24-hour Shutdown Limiting Condition of Operation (LCO) was initiated.

At 1235 hours the DWEDS high-high alarm was received. At 1600 hours the DWFDS was pumped down per Technical Specifications and drywell leakage was determined to be less than 1 gallon per minute. At 1800 hours the DWFDS was again pumped down and drywell leakage determined to be 2 gallons per minute, the same rate as before the DWEDS pumps tripped thermally. At 1815 hours the 24-hour Shutdown LCO was terminated. Subsequent pumpings of the DWFDS quantified total drywell leakage to be 2 gallons per minute, well below the Technical Specification 3.6.D.1. limit of 5 gallons per minute for unknown drywell leakage.

On July 9, 1993 the Operating Engineer decided to take the DWEDS pump control switches out of PTL to see if the problem had corrected itself when the DWEDS filled up and overflowed. This proved not to be the case and the pumps continued to trip thermally after running for a few minutes. Because both of the DWEDS pumps have flow while running, the Operating Engineer decided to allow pumping of the DWEDS to clear the high-high alarm. In addition, the Operating Engineer requested that the DWEDS be pumped every 4 hours to clear the high alarm. On a few occassions, the DWEDS pumps have tripped thermally operating in this manner. This mode of operation quantifies drywell leakage and satisfies Technical Specification 4.6.D.1..

C. APPARENT CAUSE OF EVENT:

This report is submitted in accordance with 10CFR 50.73(a)(2)(i)(B), which requires the reporting of any condition prohibited by the Technical specifications. The root cause of the DWEDS pumps tripping thermally cannot be determined until Unit 2 is shutdown and a drywell entry can be made. It is believed that there is a foreign object in the DWEDS that lodges in the pump suction when the sump is pumped down.

D. SAFETY ANALYSIS OF EVENT:

The purpose for monitoring leakage of equipment within the primary containment is to ensure early detection of significant degradation of primary system components. During the time the DWEDS pump control switches were in PTL, the DWFDS high-high alarm was not received. At 1800 hours the DWEDS was overflowing into the DWFDS and quantified drywell leakage had stabilized at 2 gallons per minute. An increase in drywell leakage would have been indicated by the DWFDS level alarms. Therefore, this event was determined to have minimal safety significance.

E. CORRECTIVE ACTIONS:

The immediate corrective action included recording current readings while running the DWEDS pumps. The readings were high, indicating a problem with either the motors or pumps. The pump control switches were then placed in PTL and a 24-hour Shutdown LCO initiated while the DWEDS was allowed to fill and eventually overflow into the DWFDS. When drywell leakage could be quantified by pumping the DWFDS, the LCO was terminated. The pumps were placed back in operation on July 9, 1993, but continued to trip thermally on occassion. Station Work Requests D20683 and D20684 were submitted for the Mechanical Maintenance Department to pull the pumps and to clean the DWEDS when a Unit 2 shutdown permits drywell entry (237-18-93-01401).

F. PREVIOUS OCCURRENCES:

There have been no previous events on either Unit 2 or Unit 3, where the DWEDS or DWFDS pumps have failed to operate or tripped thermally during operation due to foreign debris plugging or restricting the pumps.

G. COMPONENT FAILURE DATA:

System 2000, Radwaste and the DWEDS pumps are not NPRDS reportable.

Manufacturer	Nomenclature	Model Number	Mfg. Part Number
Aurora Pump Co.	DWEDS Pump	Type NSB	530 SPL
General Electric Co.	DWEDS Pump Motor	5K213FG362B-FR-213P	