



**Commonwealth Edison**  
Dresden Nuclear Power Station  
6500 North Dresden Road  
Morris, Illinois 60450  
Telephone 815/942-2920

August 11, 1994

GFSLTR 94-0263

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

Licensee Event Report 94-020, Docket 50-237 is being submitted as required by Technical Specification 6.6, NUREG 1022 and 10CFR50.73(a)(2)(iv).

Sincerely,

A handwritten signature in cursive script that reads "Gary F. Spedl".

Gary F. Spedl  
Station Manager  
Dresden Station

GFS/MK:cfq

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)**

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

<b>FACILITY NAME (1)</b> Dresden Nuclear Power Station, Unit 2 and 3	<b>DOCKET NUMBER (2)</b> 05000237	<b>PAGE (3)</b> 1 OF 4
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**TITLE (4)**  
Unit 2 HPCI Booster Pump Oil Drain Plugs Were Changed Instead of Unit 3 HPCI Booster Pump Due to Personnel Error

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 NAME	DOCKET NUMBER
07	15	94	94	-- 020 --	00	07	29	94	Dresden Unit 3	05000249
									FACILITY NAME	DOCKET NUMBER

<b>OPERATING MODE (9)</b> N	<b>THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)</b>									
<b>POWER LEVEL (10)</b> 099	20.2201(b)			20.2203(a)(3)(i)			50.73(a)(2)(iii)			73.71(b)
	20.2203(a)(1)			20.2203(a)(3)(ii)			X 50.73(a)(2)(iv)			73.71(c)
	20.2203(a)(2)(i)			20.2203(a)(4)			50.73(a)(2)(v)			OTHER
	20.2203(a)(2)(ii)			50.36(c)(1)			50.73(a)(2)(vii)			(Specify in Abstract below and in Text, NRC Form 366A)
	20.2203(a)(2)(iii)			50.36(c)(2)			50.73(a)(2)(viii)(A)			
	20.2203(a)(2)(iv)			50.73(a)(2)(i)			50.73(a)(2)(viii)(B)			
20.2203(a)(2)(v)			50.73(a)(2)(ii)			50.73(a)(2)(x)				

**LICENSEE CONTACT FOR THIS LER (12)**

<b>NAME</b> Matthew D. Krouse, Construction Field Engineer	<b>TELEPHONE NUMBER (Include Area Code)</b> Ext. 2821 (815) 942-2920
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**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

<b>SUPPLEMENTAL REPORT EXPECTED (14)</b>				<b>EXPECTED SUBMISSION DATE (15)</b>		
YES (If yes, complete EXPECTED SUBMISSION DATE).	X	NO				

**ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)**

On July 15, 1994 with Unit 2 at 99% rated power and Unit 3 in a Refuel Outage, two contractor Millwrights were to perform a leak repair on the Unit 3 High Pressure Coolant Injection (HPCI) [BJ] booster pump bearing housing oil drain plugs. The Millwrights inadvertently removed the plugs and drained the oil from the Unit 2 HPCI booster pump, then reinstalled the plugs and filled the bearing housing with oil. Upon noticing they had worked on the wrong unit, they then proceeded to work on Unit 3 and when complete, turned in the work package without notifying anyone of the error. On July 18, 1994 the System Engineer was performing his walkdown and noticed some oil leaking from the Unit 2 HPCI booster pump oil drain plugs. After his investigation, he questioned the Unit 3 working department as to whether they could have been working on Unit 2. The two Millwrights confirmed that they had been working on the Unit 2 HPCI booster pump, however they were not aware of the safety significance of their actions, specifically, rendering the U2 HPCI System inoperable for twenty (20) minutes. The cognizant job supervisor and the System Engineer then notified the Unit 2 Operating Engineer and the Shift Engineer.

**LICENSEE EVENT REPORT (LER)  
TEXT CONTINUATION**

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

**EVENT IDENTIFICATION:**

Unit 2 HPCI Booster Pump Oil Drain Plugs Were Changed Instead of Unit 3 HPCI Booster Pump Due to Personnel Error

**A. PLANT CONDITIONS PRIOR TO EVENT:**

Unit: 2 (3)                      Event Date: 07/15/94                      Event Time: 1430  
 Reactor Mode: N (N)            Mode Name: Run (Refuel)                      Power Level: 99% (0%)  
 Reactor Coolant System Pressure: 1000 psig (0 psig)

**B. DESCRIPTION OF EVENT:**

At approximately 0720 on July 18, 1994 with Unit 2 at 99% rated power and Unit 3 in a Refuel Outage, the System Engineer was performing a routine walkdown when he noticed oil leaking in the area of the Unit 2 High Pressure Coolant Injection (HPCI) [BJ] booster pump. He investigated further and noticed that the oil drain plugs appeared to have been recently changed. He took immediate corrective action by tightening the drain plugs and checking the oil level. Being aware that there was similar work to be performed on Unit 3, the System Engineer asked the cognizant work supervisor if the workers might have done work on the wrong unit. The Millwrights assigned to work the Unit 3 HPCI booster pump Friday, July 15th, were asked if they had also done any work in the Unit 2 HPCI room that day. They admitted that they had changed the oil in both HPCI booster pumps, however they did not understand the safety significance of their inappropriate actions at the time. It was determined that to remove the oil drain plugs, drain the oil, lubricate the plug threads, reinstall the plugs and fill the bearing housing with oil, the elapsed time was five to ten minutes per bearing (two required). The total time the Unit 2 HPCI system was inoperable was twenty (20) minutes, from 1430 to 1450 on Friday, July 15, 1994.

**C. CAUSE OF EVENT:**

This LER is submitted in accordance with 10 CFR 50.73(a)(2)(v), which requires the reporting of an event or condition that alone could have prevented fulfillment of the safety function of systems needed to mitigate the consequences of an accident.

The apparent cause of the event is inadequate direction given to the individuals as to the location of the work. The Nuclear Work Request (NWR) was given to the working department the evening before the work was performed and although authorized by the shift over 3 months earlier, was not reviewed with and given to the workers until afternoon on the 15th of July. In addition, the work package had been developed two years earlier and did not contain several of the checklists in use today (DAP 1-4 and DSI 108).

The individuals involved with working on the incorrect unit were experienced craftsman that had worked at Dresden Station before and were insistent to their Foreman that they knew where the work was to be performed. Due to the Foreman's familiarity with the men, and the relative simplicity of the task, the walkdown of the job site was not performed, nor was it required in the work package. The

NRC FORM 366A (5-92)		U.S. NUCLEAR REGULATORY COMMISSION		APPROVED BY OMB NO. 3150-0104 EXPIRES 5/31/95	
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TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

individuals entered the Unit 2 HPCI room, which adjoins the Unit 3 Reactor building, and did verify that they were working on the booster pump and not the main pump by checking the identification tags on the equipment. They did not, however, differentiate between the unit numbers on the tags.

A second NWR had been written to perform major work on the Unit 3 HPCI booster pump and an Exempt Plant Change work package built in accordance with plant modification procedures. It could have been feasible to replace the oil drain plugs as part of the Exempt Plant Change and cancelled the maintenance NWR. However, there were already two separate work packages made up and it would have required a package revision to add a work step. Two work packages on the same equipment added to the confusion although a work package revision at the time of the incident may not have helped either due to the complexity of the Exempt Plant Change instructions.

D. SAFETY ANALYSIS:

It was determined that the HPCI system for Unit 2 was inoperable for a period of approximately twenty (20) minutes, from the time the plugs were removed and the oil drained until they were reinstalled and the bearing housings were filled with oil. The system was not isolated by means of an out-of-service and was functional both mechanically and electrically. The HPCI system would have initiated its safety function in its degraded condition if a startup was required, however the Booster pump would have eventually overheated and failed due to the lack of bearing oil. Failure of this pump would lead to abnormal pressures at the HPCI Main pump and potential uncoupling from the turbine causing a trip of the whole system. Due to the inoperability of the high pressure system, the automatic depressurization valves would open, allowing for vessel depressurization and initiation of the low pressure safety systems. These backup systems were available before, during, and after the event.

Therefore, the safety significance of this event is considered to be minimal.

E. CORRECTIVE ACTIONS:

The HPCI system was declared operable upon verification of acceptable oil level and no further action is required in regards to system availability. The individuals involved were terminated from employment at Dresden Station following interviews with them that confirmed that they knew they had committed an error and failed to report it in accordance with the contractor job rules.

To prevent reoccurrence, this event will be tailgated to all Maintenance departments, SEC, and Operations so that the importance of communications can be re-enforced. Topics to be discussed as a minimum will include a summary of the event and the importance of the job supervisor in explaining the work and reviewing the potential hazards of any job task with their personnel. It will also be emphasized that if something goes wrong in the field or something unexpected happens, STOP what you are doing and notify supervision of the abnormality so that the appropriate individual(s) or department can react quickly to the situation. The STAR (Stop, Think, Act, and Review) principle will be talked to as to how a little extra time to stop and think where you are, what you are about to do, can help prevent personal errors.

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Additional maps, pictures, diagrams, etc., will be included in work packages as determined by the Work Analyst and/or job supervisor.

The Work Analyst Guide to Package Preparation will be revised to include instructions to the Work Analyst to consider the use of maps, pictures, diagrams, etc. to aid workers in locating plant equipment.

These corrective actions will be assigned NTS numbers and tracked through their completion

F. PREVIOUS OCCURRENCES:

Not applicable.

G. COMPONENT FAILURE DATA:

Not Applicable.