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

August 31, 1994

RLBLTR 94-0006

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

Licensee Event Report 94-014-01, Docket 50-249 is being submitted as required by Technical Specification 6.6, NUREG 1022 and 10CFR50.73(a)(2)(iv).

Sincerely,

Richard L. Bax
Unit 3 Station Manager
Dresden Station

RLB/GP:cfq

Enclosure

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

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NRC FORM 366 (5-92) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB NO. 3150-0104
EXPIRES 5/31/95

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 (MNBB 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.

# LICENSEE EVENT REPORT (LER)

| FACILITY NAME (1) | DOCKET NUMBER (2) | PAGE (3) |
|---|---|---|
| Dresden Nuclear Power Station, Unit 3 | 05000249 | 1 OF 3 |

TITLE (4)
Unit 3 Torus/Reactor Building Relief Valves Cycled 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 | 14 | 94 | 94 | -- 014 -- | 01 | 08 | 30 | 94 | None | |
| | | | | | | | | | FACILITY NAME | DOCKET NUMBER |

| OPERATING MODE (9) | N |
|---|---|
| POWER LEVEL (10) | 000 |

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)

| | | | | | |
|---|---|---|---|---|---|
| | 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)

| NAME | TELEPHONE NUMBER (Include Area Code) |
|---|---|
| Greg Petrovic, Operations Staff Ext. 3691 | (815) 942-2920 |

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 15 single-spaced typewritten lines) (16)

On July 14, 1994, with Unit 3 in a refueling outage, the Torus Vacuum Breakers, 1601-20A and 1601-20B, cycled due to negative pressure in the suppression chamber. The cause of the event was due to closing the torus hatches with the Drywell and Torus Purge fan in operation while aligned to the torus only. The vacuum breakers began to cycle when the torus reached approximately -0.46 pounds per square inch differential (psid) between the reactor building and the torus. The Technical Specification requires the vacuum breakers operate at -0.5 psid between the reactor building and torus. The Unit 3 Nuclear Station Operator (NSO) was alerted by actuation of the "TORUS VACUUM RELIEF VALVE NOT CLOSED" annunciator alarm, and he observed the vacuum breakers cycling. Also, the Mechanical Maintenance Department personnel, responsible for closing the last torus hatch, observed the vacuum breakers cycling and called the control room to inform the operator. The Unit 3 NSO closed the 18 inch torus purge suction valve, 1601-60, and the torus vacuum breakers stopped cycling within approximately 20 seconds.

EVENT IDENTIFICATION:

Unit 3 Torus/Reactor Building Relief Valves Cycled due to Personnel Error

A. PLANT CONDITIONS PRIOR TO EVENT:

Unit: 3 Event Date: 07/14/94 Event Time: 0346

Reactor Mode: Shutdown Mode Name: Refuel Power Level: 0%

Reactor Coolant System Pressure: 0 psig

B. DESCRIPTION OF EVENT:

On July 13 1994, with Unit 3 in a refueling outage, the torus vacuum breakers, 1601-20A and 1601-20B, cycled due to negative pressure in the torus. At the time of this event, the torus and Drywell Purge Fans were aligned to the torus only to ensure adequate ventilation for personnel which had been working in the torus.

On July 13, 1994, at 1800 hours, the Shift Outage Manager (SOM) directed the Mechanical Maintenance Department(MMD) supervisor to close the Unit 3 torus hatches because all torus work was completed. At approximately 2200 hours, the MMD supervisor dispatched a crew to bolt the torus hatches. He notified the SOM that the hatches would be secured. The SOM did not inform the NSO or the Shift Control Room Engineer (SCRE) of the order to close the hatches. At 1100 hours, the midnight shift maintenance crew was sent to the torus to complete the hatch installation. The midnight shift crew was able to observe that the afternoon maintenance crew was finishing the west torus hatch and made arrangements to perform turnover when the west hatch bolting was completed. The afternoon crew completed bolting the west torus hatch, then exited the torus area.

The operations crew performed shift turnover, however the SOM did not discuss the torus hatch closure activities with his relief. Although, earlier, he did mention the torus hatch closure was in progress to his Shift Engineer. The maintenance crew performed their turnover and the oncoming crew reviewed the work package. The package did not contain instructions to notify the control room before securing the hatches. After the turnover, the oncoming crew entered the torus area and prepared the torus flange for closure and installed the torus gasket. At 0344 on 7/14/94 the MMD crew closed the torus east hatch. At 0346 the "TORUS VACUUM RELIEF VALVE NOT CLOSED" annunciator alarm actuated in the main control room. The control room operators observed that the torus vacuum breakers 3-1601-20A and 3-1601-20B and torus pressure were cycling. The vacuum breakers opened at approximately -0.46 pounds per square inch differential (psid) pressure between the reactor building and the torus. Technical Specifications section 3.7.A. require the vacuum breakers to open at less than or equal to -0.50 psid pressure between the reactor building and the torus. At the same time, the MMD crew noticed the vacuum breakers cycling and called the control room to inform the operators of the occurrence. The operator decided that the cause of the cycling was due to operation of the Drywell and Torus Purge Fan with suction from the torus. He kept the maintenance crew on the telephone and closed the torus ventilation 3-1601-60 valve. After the valve was closed, the torus to reactor building vacuum breakers stopped cycling after approximately 20 seconds.

During the operations department midnight to day shift turnover, the midnight SCRE informed the oncoming Control Room Outage Engineer (CROE) of the reactor building to torus vacuum breaker operation. The oncoming CROE believed the event should be reportable and discussed the event with the oncoming Shift Engineer. After looking up the event in the Reportability Manual, the CROE decided that an Emergency Notification System (ENS) telephone call was required. The notification was made on 7/14/94 at 0739 hours.

C. CAUSE OF EVENT:

This report is submitted in accordance with 10CFR50.73 (a)(2)(iv), which requires reporting of any event that results in automatic or manual actuation of any Engineered Safety Feature (ESF). This event occurred because the work package did not ensure the plant was in the proper configuration to perform the evolution. The SOM did not recognize the possibility of pulling a vacuum on the torus when the hatches were closed, which contributed to this event. Contributing causes of the event also include not informing the control room of the plan to close the torus hatches.

There has been one previous occurrence of an inadvertent opening of the torus-to-reactor building vacuum breakers; however, the cause was a wrong component error by an instrument mechanic.

D. SAFETY ANALYSIS:

The safety significance of this event is minimal because the reactor to torus vacuum breakers performed as designed to prevent exceeding the torus design pressure. Also the torus ventilation lineup with the torus hatches open is only done when primary containment is not required.

E. CORRECTIVE ACTIONS:

The maintenance package used to open and close the torus hatches will be revised to notify the control room to verify ventilation lineup before closing the torus hatches due to the possibility of drawing a vacuum and cycling vacuum breaker valves. The event will be reviewed in licensed operator continuing training. Training will address the circumstances that resulted in drawing a vacuum in the torus, the reportability requirements when the vacuum breaker is actuated, and the responsibilities of shift personnel to inform the Control Room of work being performed in the plant. Corrective actions to prevent similar occurrences when maintenance activities are in progress have been evaluated. We believe this to be an isolated incident and no further corrective actions are required.

F. PREVIOUS OCCURRENCES:

None.

G. COMPONENT FAILURE DATA:

None.