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10 CFR 50.73

December 31, 2003

RHLTR: #03-0084

U. S. Nuclear Regulatory Commission
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Washington, DC 20555-0001


Dresden Nuclear Power Station, Unit 2
Facility Operating License No. DRP-19
NRC Docket No. 50-237

Subject: Licensee Event Report 2003-006-00, "Unit 2 Torus Purge Valve Open In Conjunction with the Drywell Purge Valve in Mode 2"

Enclosed is Licensee Event Report 2003-006-00, "Unit 2 Torus Purge Valve Open In Conjunction with the Drywell Purge Valve in Mode 2," for Dresden Nuclear Power Station, Unit 2. This event is being reported in accordance with 10 CFR 50.73(a)(2)(i)(B), "Any operation or condition which was prohibited by the plant's Technical Specifications."

Should you have any questions concerning this report, please contact Jeff Hansen, Regulatory Assurance Manager, at (815) 416-2800.

Respectfully,



R. J. Hovey
Site Vice President
Dresden Nuclear Power Station

Enclosure

cc: Regional Administrator – NRC Region III
NRC Senior Resident Inspector – Dresden Nuclear Power Station

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LICENSEE EVENT REPORT (LER)

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

Dresden Nuclear Power Station Unit 2 is a General Electric Company Boiling Water Reactor with a licensed maximum power level of 2957 megawatts thermal. The Energy Industry Identification System codes used in the text are identified as [XX].

A. Plant Conditions Prior to Event:

Unit: 02	Event Date: 11-10-2003	Event Time: 0720 CST
Reactor Mode: 2	Mode Name: Startup	Power Level: 1 percent
Reactor Coolant System Pressure: Approximately 135 psig		

B. Description of Event:

Dresden Nuclear Power Station Unit 2 is equipped with 18 inch Drywell Purge and Torus Purge valves [VB] [V], 2-1601-21 and 2-1601-56, that allow for the atmospheric control of the Primary Containment Drywell and Torus air spaces. With both valves open, the Drywell and Torus airspaces are directly connected and result in a bypass of the Torus downcomers and suppression pool.

On November 2, 2003, with Dresden Nuclear Power Station Unit 2 in Mode 5, "Refueling," during refueling outage D2R18, the Drywell Purge valve was opened and a Drywell Purge flow established to provide ventilation for Drywell for outage work. Additionally, on November 2, 2003, the Torus Purge valve was opened to prevent the creation of a vacuum in the Torus that could have actuated the to Torus Vacuum Breakers. The Torus Purge and Drywell Purge valves are allowed to be open simultaneously in Mode 4, "Cold Shutdown," and Mode 5.

On November 8, 2003, with Unit 2 in Mode 4, an Equipment Status Tag was placed on the main control board switch for the Torus Purge valve to identify that the valve was open to prevent pulling a vacuum on the Torus that could actuated the to Torus Vacuum Breakers.

On November 9, 2003, procedure DOS 0040-12, "Penetration Flow Path PCIV Position Channel Check," Attachment A, "Unit 2(3) Primary Containment Isolation Valves," was performed to check functionality of Primary Containment isolation valve position indications for Technical Specification 3.3.3.1, "Post Accident Monitoring (PAM) Instrumentation." The procedure identified the normal position of the Torus Purge valve as open and the Drywell Purge valve as close. The normal valve position is not required during Mode 4 as the plant may be aligned to support various outage functions. Technical Specification Surveillance Requirement 3.6.1.3.1 has a note that allows the Drywell Purge valve to be open in Mode 1, 2 and 3 if the Torus Purge valve is closed. On November 9, 2003, at 1201 hours (CST), Unit 2 exited Mode 4 and entered Mode 2 when the Reactor Mode Switch was transferred to the Startup/Hot Standby position.

On November 10, 2003, at 0720 hours (CST), with Unit 2 in Mode 2, "Startup," it was discovered during control panel monitoring, that the Torus Purge and Drywell Purge valves were both open. The Torus Purge Valve was immediately closed.

This event is being reported in accordance with 10 CFR 50.73(a)(2)(i)(B), "Any operation or condition which was prohibited by the plant's Technical Specifications." The Torus Purge and Drywell Purge valves were both open in Mode 2 for approximately 19 hours. This alignment exceeded Technical Specification 3.6.1.1, "Primary Containment," and Technical Specification 3.6.1.3, "Primary Containment Isolation Valves (PCIVs)," allowed Completion Time of 1 hour. Additionally, Limiting Condition for Operation 3.0.4 would have prohibited entry from Mode 4 into Modes 2 due to the specific circumstances associated with not meeting the Limiting Condition for Operation for Technical Specifications 3.6.1.1 and 3.6.1.3 at the time of Mode transition.

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

C. Cause of Event:

The root cause of the event was procedure DGP 01-S1 does not provide direction to check the Primary Containment isolation valve lineup prior to making a Mode change. Procedure DGP 01-S1 is inadequate in that it directs the operator to ensure Primary Containment Technical Specifications are met instead of directing the operator to perform verification of the position of Primary Containment isolation valves.

D. Safety Analysis:

The safety significance of this event was minimal. The reactor pressure was approximately 135 pounds per square inch gauge when the Torus Purge valve was closed. The Drywell Purge and Torus Purge valves would have closed within approximately 10 seconds during a postulated Design Basis Accident. An engineering evaluation was performed that demonstrated that with either of the valves in the closed position within 10 seconds of a postulated Design Basis Accident, the calculated maximum Primary Containment and Torus pressures would be within design limits. Therefore, the consequences of this event had minimal impact on the health and safety of the public and reactor safety.

E. Corrective Actions:

A comprehensive review of the Equipment Status Tag Log, Degraded Equipment Log, and Shift Turnover Log was performed with no similar conditions identified.

Procedure DGP 01-S1 was revised to include a listing of the applicable Technical Specification Surveillance Requirements for the Primary Containment.

Procedure DOS 0040-12 was revised to include the words "open" and "close" instead of "O" and "C." Additionally, Attachment A to the procedure was revised to list all Primary Containment isolation valves and the intent of the procedure clarified to validate Primary Containment penetration lineup.

Operations Shift Managers were briefed on the event and formal training will be provided during licensed operator requalification training.

Placard installed on main control board to alert operators of potential Primary Containment integrity issue with the Drywell and Torus Purge valves open.

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F. Previous Occurrences:

A review of Dresden Nuclear Power Station Licensee Event Reports (LERs) and operating experience over the previous seven years found the following similar occurrence.

Dresden Nuclear Power Station Unit 2 LER 97-011-00, "Potential To Bypass Containment Suppression Due To Inadequate Safety Evaluation And Review Of Procedures," describes an event that resulted in the creation of a bypass flow path between the Drywell and Torus airspaces associated with inerting, deinerting or venting the Primary Containment. The cause of the event was inadequate technical review of the original operating procedures and an inadequate safety evaluation that failed to consider the implications of combining multiple procedures during inerting, deinerting or venting the Primary Containment.

G. Component Failure Data:

N/A