



Northern States Power Company

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December 7, 1992

10 CFR Part 50
Section 50.73

U S Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

PRAIRIE ISLAND NUCLEAR GENERATING PLANT
Docket Nos. 50-282 License Nos. DPR-42
50-306 DPR-60

Auto-start of Both Diesel Cooling Water Pumps
Due to Error in Modification Procedure

The Licensee Event Report for this occurrence is attached.

This event was reported via the Emergency Notification System in accordance with 10 CFR Part 50, Section 50.72, on November 5, 1992. Please contact us if you require additional information related to this event.

Thomas M Parker
Director of Licensing
Nuclear Generation

c: Regional Administrator - Region III, NRC
NRR Project Manager, NRC
Senior Resident Inspector, NRC
Kris Sanda, State of Minnesota

Attachment

9212140220 921207
PDR ADDCK 05000282
S PDR

LICENSEE EVENT REPORT (LER)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 60.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1) PRAIRIE ISLAND NUCLEAR GENERATING PLANT UNIT 1 DOCKET NUMBER (2) 0 5 0 0 0 2 8 2 1 OF 0 3 PAGE (3)

TITLE (4) Auto-Start of Both Diesel Cooling Water Pumps Due to Error in Modification Procedure

| 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) | | | | | | |
| 1 | 1 | 0 | 3 | 9 | 2 | 9 | 2 | 0 | 1 | 5 | 0 | 0 | 0 | 3 | 0 | 6 |
| 1 | 1 | 0 | 3 | 9 | 2 | 9 | 2 | 0 | 1 | 5 | 0 | 0 | 0 | 3 | 0 | 6 |

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5. (Check one or more of the following) (11)

| OPERATING MODE (9) | 20.402(b) | 20.405(c) | 50.73(a)(2)(iv) | 73.71(b) |
|--------------------|-------------------|------------------|----------------------|--|
| N | | | XX | |
| POWER LEVEL (10) | 20.405(a)(1)(i) | 50.38(a)(1) | 50.73(a)(2)(v) | 73.71(c) |
| 01010 | 20.405(a)(1)(ii) | 50.38(a)(2) | 50.73(a)(2)(vi) | |
| | 20.405(a)(1)(iii) | 50.73(a)(2)(i) | 50.73(a)(2)(vii)(A) | OTHER (Specify in Abstract below and in Text, NRC Form 366A) |
| | 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)(ix) | |

LICENSEE CONTACT FOR THIS LER (12)

| NAME | TELEPHONE NUMBER |
|--------------------------------|------------------|
| Arne A Hunstad, Staff Engineer | 612 388-1121 |

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

| CAUSE | SYSTEM | COMPONENT | MANUFACTURER | REPORTABLE TO NRC | CAUSE | SYSTEM | COMPONENT | MANUFACTURER | REPORTABLE TO NRC |
|-------|--------|-----------|--------------|-------------------|-------|--------|-----------|--------------|-------------------|
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

SUPPLEMENTAL REPORT EXPECTED (14)

| YES (If yes, complete EXPECTED SUBMISSION DATE) | NO | EXPECTED SUBMISSION DATE (15) | MONTH | DAY | YEAR |
|---|----|-------------------------------|-------|-----|------|
| XX | | | | | |

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

On November 5, 1992, both units were at cold shutdown. Modification work was in progress on a Unit 1 Control Room control panel (Panel F). Instrumentation was being removed from the old control panel in preparation for installation of a new Panel F.

An intake bay level indicator was to be removed from service. One lead of the indicator was disconnected; this action caused the instrument loop to fail downscale resulting in an apparent low level condition, tripping No. 11 Motor-driven Cooling Water Pump, which was operating at the time. With no cooling water pumps operating, header pressure soon dropped to the auto-start setpoint for the diesel cooling water pumps, and at about 0118 hours, both No. 12 and No. 22 Diesel Cooling Water Pumps started automatically. This was a non-engineered safety features actuation of engineered safety features equipment.

Cause of the event was inadequate preparation and review of the work package that authorized removal of the intake bay level indicator.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 500 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.

| FACILITY NAME (1) | | DOCKET NUMBER (2) | | LER NUMBER (6) | | | PAGE (3) |
|---------------------------------------|--|-------------------|--|----------------|-------------------|-----------------|-------------|
| Prairie Island Nuclear Gen Plt Unit 1 | | 05000 - 282 | | YEAR | SEQUENTIAL NUMBER | REVISION NUMBER | OF 02 03 |
| | | | | 92 | ~ 0 1 5 ~ | 0 0 | |

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

EVENT DESCRIPTION

On November 5, 1992, both units were at cold shutdown. Modification work was in progress on a Unit 1 Control Room control panel (Panel F). Instrumentation was being removed from the old control panel in preparation for installation of a new Panel F.

An intake bay level indicator was to be removed from service. One lead of the indicator was disconnected; this action caused the instrument loop to fail downscale resulting in an apparent low level condition, tripping No. 11 Motor-driven Cooling Water Pump, which was operating at the time. With no cooling water pumps operating, header pressure soon dropped to the auto-start setpoint for the diesel cooling water pumps (EIS System Identifier BI)(EIS Component Identifier P), and at about 0118 hours, both No. 12 and No. 22 Diesel-driven Cooling Water Pumps started automatically. This was a non-engineered safety features actuation of engineered safety features equipment.

Operators checked the diesel engines locally and verified that they were operating correctly. Control room operators quickly determined the cause of the auto-starts and ordered the disconnected lead to be reconnected. They ordered the control panel work stopped, and at 0133 started No. 21 Motor-driven Cooling Water Pump to assume the cooling water load, and prepared to shut down the diesel engines according to procedures. Operators stopped No. 22 Diesel-driven Cooling Water Pump and returned it to standby service at 0152, and stopped No. 12 Diesel-driven Cooling Water Pump and returned it to standby service at 0202.

The intake bay level indicator was later removed only when an appropriate bypass had been applied to maintain operability of the instrument loop.

CAUSE OF THE EVENT

Cause of the event was inadequate preparation and review of the work package that authorized removal of the intake bay level indicator.

A similar modification activity took place without incident on the Unit 2 Control Panel F at the February 1992 refueling. No auto-starts took place at that time since the associated motor-driven cooling water pump (No. 21) was not operating at the time.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

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.

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| Prairie Island Nuclear Gen Plt Unit 1 | | 05000 - 282 | | YEAR | SEQUENTIAL NUMBER | REVISION NUMBER | OF 03 03 |
| | | | | 92 | 015 | 00 | |

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

ANALYSIS OF THE EVENT

The functional response of the diesel-driven cooling water pumps to low header pressure was according to design. The cooling water system remained operable and all safety functions were available throughout the event. There was no effect on public health and safety since the cooling water pumps and system operated as designed. This was a non-engineered safety features actuation of engineered safety features equipment.

Since this was an unplanned actuation of engineered safety features equipment, the event is reportable pursuant to 10CFR50.73(i)(2)(iv).

CORRECTIVE ACTION

The need for completeness and accuracy in the generation of modification installation work packages will be emphasized to all engineering and technical staff personnel.

FAILED COMPONENT IDENTIFICATION

None.

PREVIOUS SIMILAR EVENTS

Auto-starts of diesel-driven cooling water pumps have been reported as Unit 1 LER's 85-015, 87-008, 88-002 and 90-003. However, none of these auto-starts were caused by modification activities or inadequate modification procedures.