

Northern States Power Company

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April 3, 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

Failure to Perform a Full Flow Test of Turbine-Driven Auxiliary Feedwater Pumps Due to Personnel Error

The Licensee Event Report for this occurrence is attached.

Please contact us if you require additional information related to this event.

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Thomas M Parker Manager Nuclear Support Services

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

Attachment

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had occurred with sufficient frequency to satisfy the annual test requirement, but post-trip data is insufficient to document auxiliary feedwater flow rates.

NRC FORM NEA	US NUCLEAR REGULATORY COMMISSION	APPROVED DM6 ND. 3160-0104 EXPIRES 4/30/92								
LICENSEE EVENT REPO TEXT CONTINUAT		ESTIMATED BURDEN PER RESPONSE T INFORMATION COLLECTION REQUEST COMMATS REGARDING BURDEN ESTIM AND REPORTS MANAGEMENT BRANCH REGULATORY COMMISSION WASHINGT THE FAPERWORK REQUCTION PROJEC OF MANAGEMENT AND BUDGET, WASHIN	50.0 HRS FORWARD ATE TO THE RECORDS (P-830) U.S NUCLEAR ON DC 20555 AND TO T (3150.0104), OFFICE							
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EVENT DESCRIPTION

During routine reviews of Technical Specifications by system engineers, it was realized that the annual full flow test for the turbine-driven auxiliary feedwater pumps might no longer be met due to increasing fuel cycle lengths. A License Amendment Request was submitted in January 1992 to change the full flow testing requirement for the turbine-driven auxiliary feedwater pumps to a refueling interval to make the requirements consistent with those for the motor-driven auxiliary feedwater pumps.

A comprehensive review of the testing and operating procedure records was done to determine if the discrepancy had caused any violation of the testing requirements of Technical Specification 4.8.A.2. The requirements to test annually plus 25% translates to a maximum interval of 456 days. That interval was exceeded four times:

- on Unit 1 in 1990; the interval was 476 days.
- on Unit 2 in 1990; the interval was 499 days.
- on Unit 1 in 1991; the interval was 464 days.
- on Unit 2 in 1991; the interval was 499 days.

Following reactor trips from full power, turbine-driven auxiliary feedwater pumps typically operate at full flow for some period of time. During two of the periods above, auxiliary feedwater flow data exists that demonstrates full flow to the steam generators following reactor trips. During the other two periods, reactor trips from full power had occurred with sufficient frequency to satisfy the annual test requirement, but post-trip data is insufficient to document auxiliary fee "vater flow rates.

NRC FORM 306A (6-80)	US NUCLEAR REGULATORY COMMISSION					APPROVED OMB ND. 3150-0104 EXPIRES: 4/30/92									
LICENSEE EVENT RE TEXT CONTINUA		ESTIMATED BURDEN PER RESPONSE TO COMPLY WTH THIS INFORMATION COLLECTION REQUEST 50.0 HRS FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530) US NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 2056, AND TO THE PAPERWORK REQUECTION PROJECT (3160-0104, OFFICE OF MANAGEMENT AND BUDGET WASHINGTON, DC 20503.													
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CAUSE OF THE EVENT

Failure to perform full flow testing of the turbine-driven auxiliary feedwater pumps at the required interval was the result of personnel oversight in setting the requirements for meeting the testing frequency. Until 1984, this testing was done exclusively as part of the surveillance program. In 1984, several requirements were combined into one test to be done during unit startup after a cold shutdown. The test requirements were incorporated into the routine unit startup procedure and removed from the routine surveillance schedule. Since the test was now required only after a cold shutdown, the test would not be required during a reactor trip recovery, and typically was not done. This consolidation of flow tests was adequate to satisfy the annual test requirement while fuel cycles remained at approximately a year in length, but as fuel cycles were lengthened over the past few years, the annual requirement was no longer met by doing the test at restart after cold shutdowns.

ANALYSIS OF THE EVENT

The full flow test of the motor-driven auxiliary fee sater pumps is required on a refueling interval; this is adequate for the turbine-driven auxiliary feedwater pumps, also, and a License Amendment Request has been submitted to make the requirements consistent.

Recent full flow tests have been satisfactory. There is every reason to believe the systems were capable of full flow at all times. Therefore, the health and safety of the public were unaffected.

Failure to meet the annual test requirement is a violation of Technical Specification 4.8.A.2, and therefore is reportable pursuant to 10CFR50.73(a)(2)(i)(B).

CORRECTIVE ACTION

A comprehensive review of testing requirements is being conducted to ensure the Technical Specification surveillances are being met.

Until the License Amendment Request is approved, the full flow test of the turbine-driven auxiliary feedwater pumps will be done annually.

NRC FORM 386A 16-89)	U.S. NUCLEAR REGULATORY COMMISSIO	APPROVED OMB NO. 3150-0104 EXPIRES 4/30/02									
LICENSEE EVENT F TEXT CONTINU		ESTIMATED BURDEN PER RESPONSE TO COMPLY WTF INFORMATION COLLECTION REQUEST SOLD HRS. FOR COMMENTS REGARDING BURDEN EST MATE TO THE REC AND REPORTS MANAGEMENT BRANCH (P.538). U.S. NUL REQULATORY COMMISSION WASHINGTON. DC 20555. A THE PAPERWORK REDUCTION PROJECT (3150-0164) C OF MANAGEMENT AND BUDGET, WASHINGTON, DC 2050.	IWARD CORDS CLEAR ND TO OFFICE								
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FAILED COMPONENT IDENTIFICATION

None.

PREVIOUS SIMILAR EVENTS

There have been no previous similar events reported at Prairie Island.