

SEP 8 1982

Docket Nos. 50-282  
and 50-306

Mr. D. M. Musolf  
Nuclear Support Services Department  
Northern States Power Company  
414 Nicollet Mall - 8th Floor  
Minneapolis, Minnesota 55401

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Dear Mr. Musolf:

The Commission has issued the enclosed Amendment Nos. 57 and 51 to Facility Operating License Nos. DPR-42 and DPR-60 for the Prairie Island Nuclear Generating Plant, Unit Nos. 1 and 2, respectively. The amendments consist of changes to the Technical Specifications in response to your request dated August 6, 1982.

The amendments revise the Technical Specifications to permit waiving the turbine stop and governor valve testing at the end of cycle.

Copies of the Safety Evaluation and the Notice of Issuance are also enclosed.

Sincerely,

Original signed by

Dominic C. DiIanni, Project Manager  
Operating Reactors Branch #3  
Division of Licensing

Enclosures:

1. Amendment No. 57 to DPR-42
2. Amendment No. 51 to DPR-60
3. Safety Evaluation
4. Notice of Issuance

cc: w/enclosures  
See next page

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*No Casal direction  
Subject  
to change  
FR 8/3/82*

OFFICE	ORB#3:DL	ORB#3:DL	ORB#3:DL	ORB#3:DL	OELD		
SURNAME	PMKreutzer	DCDiIanni/pn	RAClark	GCLainas	DL		
DATE	8/27/82	8/31/82	8/31/82	8/31/82	8/3/82		



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555

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Docket No. 50-282/50-306

Docketing and Service Section  
Office of the Secretary of the Commission

SUBJECT: NORTHERN STATES POWER COMPANY, Prairie Island Nuclear  
Generating Plant, Unit Nos. 1 and 2.

Two signed originals of the Federal Register Notice identified below are enclosed for your transmittal to the Office of the Federal Register for publication. Additional conformed copies ( 12 ) of the Notice are enclosed for your use.

- Notice of Receipt of Application for Construction Permit(s) and Operating License(s).
- Notice of Receipt of Partial Application for Construction Permit(s) and Facility License(s): Time for Submission of Views on Antitrust Matters.
- Notice of Availability of Applicant's Environmental Report.
- Notice of Proposed Issuance of Amendment to Facility Operating License.
- Notice of Receipt of Application for Facility License(s); Notice of Availability of Applicant's Environmental Report; and Notice of Consideration of Issuance of Facility License(s) and Notice of Opportunity for Hearing.
- Notice of Availability of NRC Draft/Final Environmental Statement.
- Notice of Limited Work Authorization.
- Notice of Availability of Safety Evaluation Report.
- Notice of Issuance of Construction Permit(s).
- Notice of Issuance of Facility Operating License(s) or Amendment(s).

Other: Amendment Nos. 57 and 51  
Referenced documents have been provided PDR.

Division of Licensing  
Office of Nuclear Reactor Regulation

Enclosure:  
As Stated

OFFICE	ORB#3:DL					
SURNAME	PMKreutzer/pr					
DATE	9/8/82					

Northern States Power Company

cc:

Gerald Charnoff, Esquire  
Shaw, Pittman, Potts and Trowbridge  
1800 M Street, N.W.  
Washington, D. C. 20036

Mr. Louis J. Breimhurst  
Executive Director  
Minnesota Pollution Control Agency  
1935 W. County Road B2  
Roseville, Minnesota 55113

The Environmental Conservation Library  
Minneapolis Public Library  
300 Nicollet Mall  
Minneapolis, Minnesota 55401

Mr. E. L. Watzl, Plant Manager  
Prairie Island Nuclear Generating Plant  
Northern States Power Company  
Route 2  
Welch, Minnesota 55089

Jocelyn F. Olson, Esquire  
Special Assistant Attorney General  
Minnesota Pollution Control Agency  
1935 W. County Road B2  
Roseville, Minnesota 55113

U.S. Nuclear Regulatory Commission  
Resident Inspectors Office  
Route #2, Box 500A  
Welch, Minnesota 55089

Regional Administrator  
Nuclear Regulatory Commission, Region III  
Office of Executive Director for Operations  
799 Roosevelt Road  
Glen Ellyn, Illinois 60137

Mr. R. L. Tanner  
County Auditor  
Red Wing, Minnesota 55066

U. S. Environmental Protection Agency  
Federal Activities Branch  
Region V Office  
ATTN: Regional Radiation  
Representative  
230 South Dearborn Street  
Chicago, Illinois 60604



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

NORTHERN STATES POWER COMPANY

DOCKET NO. 50-282

PRAIRIE ISLAND NUCLEAR GENERATING PLANT UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 57  
License No. DPR-42

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Northern States Power Company (the licensee) dated August 6, 1982, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's rules and regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
  - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

DESIGNATED ORIGINAL  
Certified By Patricia J. Moore

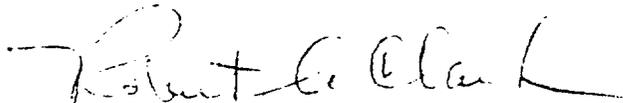
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-42 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 57, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Robert A. Clark, Chief  
Operating Reactors Branch #3  
Division of Licensing

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: September 8, 1982



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

NORTHERN STATES POWER COMPANY

DOCKET NO. 50-306

PRAIRIE ISLAND NUCLEAR GENERATING PLANT UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 51  
License No. DPR-60

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Northern States Power Company (the licensee) dated August 6, 1982, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's rules and regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
  - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

DESIGNATED ORIGINAL

Certified By

Patricia J. Noxon

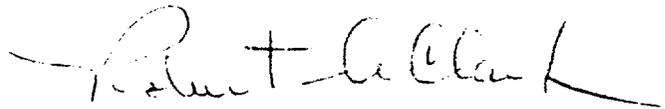
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-60 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 51, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Robert A. Clark, Chief  
Operating Reactors Branch #3  
Division of Licensing

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: September 8, 1982

ATTACHMENT TO LICENSE AMENDMENTS

AMENDMENT NO. 57 TO FACILITY OPERATING LICENSE NO. DPR-42

AMENDMENT NO. 51 TO FACILITY OPERATING LICENSE NO. DPR-60

DOCKET NOS. 50-282 AND 50-306

Revise Appendix A as follows:

Remove Pages

Table TS.4.1-2A

Insert Pages

Table TS.4.1-2A

MINIMUM FREQUENCIES FOR EQUIPMENT TESTS

	<u>Test</u>	<u>Frequency</u>	<u>FSAR Sect. Reference</u>	
1.	Control Rod Assemblies	Rod drop times of full length rods	All rods during each refueling shutdown or following each removal of the reactor vessel head: affected rods following maintenance on or modification to the control rod drive system which could affect performance of those specific rods	7
1a.	Reactor Trip Breakers	Open trip	Monthly	-
2.	Control Rod Assemblies	Partial movement of all rods	Every 2 weeks	7
3.	Pressurizer Safety Valves	Set point	Each refueling shutdown	4
4.	Main Steam Safety Valve	Set point	Each refueling shutdown	10
5.	Reactor Cavity	Water level	Prior to moving fuel assemblies or control rods and at least once every day while the cavity is flooded.	-
6.	Pressurizer PORV Block Valves	Functional	Quarterly	-
7.	Pressurizer PORVs	Functional	Every 18 months	-
8.	Deleted			
9.	Primary System Leakage	Evaluate	Daily	4
10.	Deleted			
11.	Turbine stop valves, governor valves, and intercept valves. (Part of turbine overspeed protection.)	Functional	Monthly <sup>(1)</sup>	10
12.	Deleted			

(1) This test may be waived for end of cycle operations when boron concentrations are less than 150 ppm provided more than 60 days do not elapse following the last test.



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 57 TO FACILITY OPERATING LICENSE NO. DPR-42  
AND AMENDMENT NO. 51 TO FACILITY OPERATING LICENSE NO. DPR-60  
NORTHERN STATES POWER COMPANY  
PRAIRIE ISLAND NUCLEAR GENERATING PLANT, UNIT NOS. 1 AND 2  
DOCKET NOS. 50-282 AND 50-306

Introduction

By letter dated August 6, 1982, Northern States Power Company (the licensee) requested a change to the Technical Specifications (TS) for the Prairie Island Nuclear Generating Plant, Unit Nos. 1 and 2. This change would extend the current monthly surveillance period for the turbine governor and steam stop valves (Table T.S.4.1-2A Item 11) up to 60 days at end of cycle by waiving the closure tests when boron concentration is less than 150 ppm.

Discussion

Operability of the turbine governor and stop valves is tested monthly to assure the capability to control turbine speed in case of an unexpected loss of load. Failure of these valves could result in a failure of the turbine rotor and damage due to resultant missiles.

For end of cycle operations, performance of the closure tests leads to operational problems. Power must be reduced to 50%, which makes it difficult to maintain the axial flux difference within TS limits. The low boron concentration also requires processing of large amounts of reactor coolant to overcome xenon peaking and flux tilts become difficult to control. The licensee has requested a waiver of the test for end of cycle operations only.

Evaluation

Steam admission to the turbine is controlled by two valves in series; (1) the governor valve and (2) the turbine stop valve. Turbine overspeed is controlled by three independent speed sensors. The primary overspeed control is provided by an electro-hydraulic system set to close the main steam governor and reheat steam intercept valves at 103% of rated turbine shaft speed. Backup speed control is furnished by a mechanical overspeed mechanism set to close main steam stop valve at 111% of rated turbine shaft speed. In addition, electro-hydraulic

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Certified By

*Patricia J. Moran*

control system furnishes a third backup which closes all steam valves when the turbine exceeds 111% of rated speed by 10 R.P.M. This redundancy in both valves and controls provides reasonable assurance that turbine speed control will be maintained thus preventing turbine over-speed that could result in a turbine missile accident.

The testing history of these valves shows that over 100 monthly tests since plant startup (i.e., Unit 1, 1973 and Unit 2, 1974) reveal that not a single instance occurred where the valve failed to operate properly. In addition, the turbine stop and governor valves operated properly in all instances when the trip signal to close the valve was initiated due to reactor scrams. The operating history shows that more than 210 valve actuations occurred (i.e., includes testing, reactor scrams, startups and shutdowns) since the units became operational without a single valve or control system mal-function. Such trouble-free operation of these valves are attributed to the AVT secondary water chemistry control which reduces the possibility of valve sticking when required to operate. This history of trouble-free performance provides added assurance of the dependability of these valves and the control systems. The proposed TS change will allow the closure tests to be waived only at end-of-cycle when boron concentration is less than 150 ppm. Based on expected boron letdown rates of at least 80 ppm/month, this allows no more than a two month extension. This change is similar to a TS change granted by Amendment No. 30 to Facility Operating License No. DPR-43 for the Kewaunee Nuclear Power Plant on May 7, 1979. The Prairie Island units have the same turbine valves and controls as those existing at the Kewaunee Nuclear Power Plant.

Based on the above, we consider the waiver of the governor and turbine stop valve closure tests at end-of-cycle when the boron concentration is less than 150 ppm to be acceptable.

#### Environmental Consideration

We have determined that the amendments do not authorize a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that the amendments involve an action which is insignificant from the standpoint of environmental impact and, pursuant to 10 CFR §51.5(d)(4), that an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of these amendments.

Conclusion

We have concluded, based on the considerations discussed above, that: (1) because the amendments do not involve a significant increase in the probability or consequences of an accident previously evaluated, do not create the possibility of an accident of a type different from any evaluated previously, and do not involve a significant reduction in a margin of safety, the amendments do not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) such activities will be conducted in compliance with the Commission's regulations and the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

Date: September 8, 1982

Principal Contributor:

D. C. DiIanni

UNITED STATES NUCLEAR REGULATORY COMMISSIONDOCKET NOS. 50-282 AND 50-306NORTHERN STATES POWER COMPANYNOTICE OF ISSUANCE OF AMENDMENTS TO FACILITY  
OPERATING LICENSES

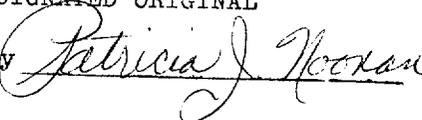
The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment Nos. 57 and 51 to Facility Operating License Nos. DPR-42 and DPR-60 issued to Northern States Power Company (the licensee), which revised Technical Specifications for operation of Prairie Island Nuclear Generating Plant, Unit Nos. 1 and 2 (the facilities) located in Goodhue County, Minnesota. The amendments are effective as of the date of issuance.

The amendments revise the Appendix A Technical Specifications to permit waiving the turbine stop and governor valve testing at the end of cycle.

The application for the amendments complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission has made appropriate findings as required by the Act and the Commission's rules and regulations in 10 CFR Chapter I, which are set forth in the license amendments. Prior public notice of these amendments was not required since the amendments do not involve a significant hazards consideration.

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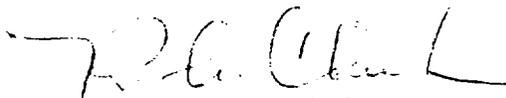
- 2 -

The Commission has determined that the issuance of these amendments will not result in any significant environmental impact and that pursuant to 10 CFR §51.5(d)(4) an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with issuance of these amendments.

For further details with respect to this action, see (1) the application for amendments dated August 6, 1982, (2) Amendment Nos. 57 and 51 to License Nos. DPR-42 and DPR-60, and (3) the Commission's related Safety Evaluation. All of these items are available for public inspection at the Commission's Public Document Room, 1717 H Street, N.W., Washington, D.C. and at the Environmental Conservation Library, 300 Nicollet Mall, Minneapolis, Minnesota 55401. A copy of items (2) and (3) may be obtained upon request addressed to the U. S. Nuclear Regulatory Commission, Washington, D.C. 20555, Attention: Director, Division of Licensing.

Dated at Bethesda, Maryland, this 8th day of September, 1982.

FOR THE NUCLEAR REGULATORY COMMISSION



R. A. Clark, Chief  
Operating Reactors Branch #3  
Division of Licensing