

April 30, 1991

Docket Nos. 50-282  
and 50-306

Mr. T. M. Parker, Manager  
Nuclear Support Services  
Northern States Power Company  
414 Nicollet Mall  
Minneapolis, Minnesota 55401

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Dear Mr. Parker:

SUBJECT: PRAIRIE ISLAND NUCLEAR GENERATING PLANT, UNIT NOS. 1 AND 2 -  
AMENDMENT NOS.95 AND 88 TO FACILITY OPERATING LICENSE NOS.  
DPR-42 AND DPR-60 (TAC NOS. 79445 AND 79446) (TAC NOS. 74984 AND 76507)

The Commission has issued the enclosed Amendment No.95 to Facility Operating License No. DPR-42 and Amendment No. 88 to the Facility Operating License No. DPR-60 for the Prairie Island Nuclear Generating Plant, Unit Nos. 1 and 2. The amendments consist of changes to the Technical Specifications (TS) in response to your application dated December 26, 1990.

The amendments revise the Technical Specification Tables TS.3.5-4 and TS.4.1-1 to incorporate the feedwater isolation specifications requested by Generic Letter 89-19 and correct Table TS.4.1-1 to remove surveillances related to the low steam generator water level coincident with steam/feedwater mismatch reactor trip which was removed from the Technical Specifications by License Amendment Nos. 87 and 80 respectively.

A copy of our related Safety Evaluation is also enclosed. The notice of issuance will be included in the Commission's biweekly Federal Register notice.

Sincerely,

/s/

Armando Masciantonio, Project Manager  
Project Directorate III-1  
Division of Reactor Projects III/IV/V  
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 95 to License No. DPR-42
2. Amendment No.88 to License No. DPR-60
3. Safety Evaluation

cc w/enclosures:  
See next page

OFC :LA/PD31:DRP345 :PM/PD31:DRP345:D/PD31:DRP345 :SICB :OGC  
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DATE :4/14/91 :4/4/91 :4/15/91 :4/11/91 :4/15/91

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UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555  
April 30, 1991

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and 50-306

Mr. T. M. Parker, Manager  
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Dear Mr. Parker:

SUBJECT: PRAIRIE ISLAND NUCLEAR GENERATING PLANT, UNIT NOS. 1 AND 2 -  
AMENDMENT NOS. 95 AND 88 TO FACILITY OPERATING LICENSE NOS.  
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The amendments revise the Technical Specification Tables TS.3.5-4 and TS.4.1-1 to incorporate the feedwater isolation specifications requested by Generic Letter 89-19 and correct Table TS.4.1-1 to remove surveillances related to the low steam generator water level coincident with steam/feedwater mismatch reactor trip which was removed from the Technical Specifications by License Amendment Nos. 87 and 80, respectively.

A copy of our related Safety Evaluation is also enclosed. The notice of issuance will be included in the Commission's biweekly Federal Register notice.

Sincerely,

A handwritten signature in black ink, appearing to read "A. S. Masciantonio", is written above the typed name.

Armando Masciantonio, Project Manager  
Project Directorate III-1  
Division of Reactor Projects III/IV/V  
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 95 to License No. DPR-42
2. Amendment No. 88 to License No. DPR-60
3. Safety Evaluation

cc w/enclosures:  
See next page

Mr. T. M. Parker  
Northern States Power Company

Prairie Island Nuclear Generating  
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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. 95  
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 December 26, 1990, 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.
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, the paragraph 2.C.(2) of Facility Operating License No. DPR-42 is hereby amended to read as follows:

Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 95, 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 its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



L. B. Marsh, Director  
Project Directorate III-1  
Division of Reactor Projects III/IV/V  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: April 30, 1991



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. 88  
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 December 26, 1990 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.
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:

Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 88, 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 its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



L. B. Marsh, Director  
Project Directorate III-1  
Division of Reactor Projects III/IV/V  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: April 30, 1991

ATTACHMENT TO LICENSE AMENDMENT NO. 95

FACILITY OPERATING LICENSE NO. DPR-42

DOCKET NO. 50-282

Revise Appendix A Technical Specifications by removing the pages identified below and inserting the attached pages. The revised pages are identified by amendment number and contain marginal lines indicating the area of change.

REMOVE

Table TS.3.5-4

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Table TS.4.1-1 (Page 2 of 5)

INSERT

Table TS.3.5-4 (Page 1 of 2)

Table TS.3.5-4 (Page 2 of 2)

Table TS.4.1-1 (Page 2 of 5)



TABLE TS.3.5-4 (Page 1 of 2)

INSTRUMENT OPERATING CONDITIONS FOR ISOLATION FUNCTIONS

<u>FUNCTIONAL UNIT</u>	<u>1</u> MINIMUM OPERABLE CHANNELS	<u>2</u> MINIMUM DEGREE OF REDUNDANCY	<u>3</u> PERMISSIBLE BYPASS CONDITIONS	<u>4</u> OPERATOR ACTION IF CONDITIONS OF COLUMN 1 OR 2 CANNOT BE MET
1. CONTAINMENT ISOLATION				
a. Safety Injection	(See Item No. 1 of Table TS.3.5-3)			Hot Shutdown**
b. Manual	2	1		Hot Shutdown
2. CONTAINMENT VENTILATION ISOLATION				
a. Safety Injection	(See Item No. 1 of Table TS.3.5-3)			Maintain Purge and Inservice Purge Valves closed if (1) conditions of a, b, or c cannot be met above COLD SHUTDOWN or (2) if conditions of b or c cannot be met during fuel handling in containment.
b. High Radiation in Exhaust Air	2	1		
c. Manual	2	1		
3. STEAM LINE ISOLATION				
a. Hi-Hi Steam Flow with Safety Injection	2/loop	1		Hot Shutdown**
b. Hi Steam Flow and 2 of 4 Low T <sub>avg</sub> with Safety Injection	2/loop	1		Hot Shutdown**
c. Hi Containment Pressure	2	1		Hot Shutdown**
d. Manual	1/loop	-		Hot Shutdown**
4. EMERGENCY COOLDOWN EQUIPMENT ROOM ISOLATION				
a. High temperature in ventilation system ducts	2	1		Hot Shutdown**

\*\*If minimum conditions are not met within 24 hours, steps shall be taken on the affected unit to place the unit in COLD SHUTDOWN conditions.

TABLE TS.3.5-4 (Page 2 of 2)

INSTRUMENT OPERATING CONDITIONS FOR ISOLATION FUNCTIONS

<u>FUNCTIONAL UNIT</u>	1 MINIMUM OPERABLE CHANNELS	2 MINIMUM DEGREE OF REDUNDANCY	3 PERMISSIBLE BYPASS CONDITIONS	4 OPERATOR ACTION IF CONDITIONS OF COLUMN <u>1 OR 2 CANNOT BE MET</u>
5. FEEDWATER ISOLATION				
a. Hi Hi Steam Generator Level	2	1		Hot Shutdown**
b. Safety Injection	(See Item No. 1 of Table TS.3.5-3)			Hot Shutdown**
c. Reactor Trip with 2 of 4 Low T <sub>avg</sub> (Main Valves only)	2	1		Hot Shutdown**

\*\*If minimum conditions are not met within 24 hours, steps shall be taken on the affected unit to place the unit in COLD SHUTDOWN conditions.

MINIMUM FREQUENCIES FOR CHECKS, CALIBRATIONS AND  
TEST OF INSTRUMENT CHANNELS

<u>Channel Description</u>	<u>Check</u>	<u>Calibrate</u>	<u>Functional Test</u>	<u>Response Test</u>	<u>Remarks</u>
9. Analog Rod Position	S(1) M(2)	R	T(2)	NA	1) With step counters 2) Rod Position Deviation Monitor Tested by updating computer bank count and comparing with analog rod position test signal
10. Rod Position Bank Counters	S(1,2) M(3)	NA	T(3)	NA	1) With analog rod position 2) Following rod motion in excess of six inches when the computer is out of service 3) Control rod banks insertion limit monitor and control rod position deviation monitors
11a. Steam Generator Low Level	S	R	M	NA	
11b. Steam Generator High Level	S	R	M	NA	
12. Steam Flow	S	R	M	NA	
13. Charging Flow	S	R	NA	NA	
14. Residual Heat Removal Pump Flow	S(1)	R	NA	NA	1) When in operation
15. Boric Acid Tank Level	D	R(1)	M(1)	NA	1) Transfer logic to Refueling Water Storage Tank
16. Refueling Water Storage Tank Level	W	R	M(1)	NA	1) Functional test can be performed by bleeding transmitter
17. Volume Control Tank	S	R	NA	NA	
18a. Containment Pressure SI Signal	S	R	M(1)	NA	Wide Range Containment Pressure 1) Isolation Valve Signal
18b. Containment Pressure Steam Line Isolation	S	R	M	NA	Narrow Range Containment Pressure

ATTACHMENT TO LICENSE AMENDMENT NO. 88

FACILITY OPERATING LICENSE NO. DPR-60

DOCKET NO. 50-306

Revise Appendix A Technical Specifications by removing the pages identified below and inserting the attached pages. The revised pages are identified by amendment number and contain marginal lines indicating the area of change.

REMOVE

Table TS.3.5-4

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Table TS.4.1-1 (Page 2 of 5)

INSERT

Table TS.3.5-4 (Page 1 of 2)

Table TS.3.5-4 (Page 2 of 2)

Table TS.4.1-1 (Page 2 of 5)

TABLE TS.3.5-4 (Page 1 of 2)

INSTRUMENT OPERATING CONDITIONS FOR ISOLATION FUNCTIONS

<u>FUNCTIONAL UNIT</u>	<u>1</u> MINIMUM OPERABLE CHANNELS	<u>2</u> MINIMUM DEGREE OF REDUNDANCY	<u>3</u> PERMISSIBLE BYPASS CONDITIONS	<u>4</u> OPERATOR ACTION IF CONDITIONS OF COLUMN 1 OR 2 CANNOT BE MET
1. CONTAINMENT ISOLATION				
a. Safety Injection	(See Item No. 1 of Table TS.3.5-3)			Hot Shutdown**
b. Manual	2	1		Hot Shutdown
2. CONTAINMENT VENTILATION ISOLATION				
a. Safety Injection	(See Item No. 1 of Table TS.3.5-3)			Maintain Purge and Inservice Purge Valves closed if (1) conditions of a, b, or c cannot be met above COLD SHUTDOWN or (2) if conditions of b or c cannot be met during fuel handling in containment.
b. High Radiation in Exhaust Air	2	1		
c. Manual	2	1		
3. STEAM LINE ISOLATION				
a. Hi-Hi Steam Flow with Safety Injection	2/loop	1		Hot Shutdown**
b. Hi Steam Flow and 2 of 4 Low T <sub>avg</sub> with Safety Injection	2/loop	1		Hot Shutdown**
c. Hi Containment Pressure	2	1		Hot Shutdown**
d. Manual	1/loop	-		Hot Shutdown**
4. EMERGENCY COOLDOWN EQUIPMENT ROOM ISOLATION				
a. High temperature in ventilation system ducts	2	1		Hot Shutdown**

\*\*If minimum conditions are not met within 24 hours, steps shall be taken on the affected unit to place the unit in COLD SHUTDOWN conditions.

PRAIRIE ISLAND UNIT 2  
AMENDMENT NO. 40, 64, 84, 88

TABLE TS.3.5-4 (Page 2 of 2)

INSTRUMENT OPERATING CONDITIONS FOR ISOLATION FUNCTIONS

<u>FUNCTIONAL UNIT</u>	<u>1</u> MINIMUM OPERABLE CHANNELS	<u>2</u> MINIMUM DEGREE OF REDUNDANCY	<u>3</u> PERMISSIBLE BYPASS CONDITIONS	<u>4</u> OPERATOR ACTION IF CONDITIONS OF COLUMN 1 OR 2 CANNOT BE MET
5. FEEDWATER ISOLATION				
a. Hi Hi Steam Generator Level	2	1		Hot Shutdown**
b. Safety Injection	(See Item No. 1 of Table TS.3.5-3)			Hot Shutdown**
c. Reactor Trip with 2 of 4 Low T <sub>avg</sub> (Main Valves only)	2	1		Hot Shutdown**

\*\*If minimum conditions are not met within 24 hours, steps shall be taken on the affected unit to place the unit in COLD SHUTDOWN conditions.

TABLE TS.4.1-1 (Page 2 of 5)

MINIMUM FREQUENCIES FOR CHECKS, CALIBRATIONS AND  
TEST OF INSTRUMENT CHANNELS

Channel Description	Check	Calibrate	Functional Test	Response Test	Remarks
9. Analog Rod Position	S(1) M(2)	R	T(2)	NA	1) With step counters 2) Rod Position Deviation Monitor Tested by updating computer bank count and comparing with analog rod position test signal
10. Rod Position Bank Counters	S(1,2) M(3)	NA	T(3)	NA	1) With analog rod position 2) Following rod motion in excess of six inches when the computer is out of service 3) Control rod banks insertion limit monitor and control rod position deviation monitors
11a. Steam Generator Low Level	S	R	M	NA	
11b. Steam Generator High Level	S	R	M	NA	
12. Steam Flow	S	R	M	NA	
13. Charging Flow	S	R	NA	NA	
14. Residual Heat Removal Pump Flow	S(1)	R	NA	NA	1) When in operation
15. Boric Acid Tank Level	D	R(1)	M(1)	NA	1) Transfer logic to Refueling Water Storage Tank
16. Refueling Water Storage Tank Level	W	R	M(1)	NA	1) Functional test can be performed by bleeding transmitter
17. Volume Control Tank	S	R	NA	NA	
18a. Containment Pressure SI Signal	S	R	M(1)	NA	Wide Range Containment Pressure 1) Isolation Valve Signal
18b. Containment Pressure Steam Line Isolation	S	R	M	NA	Narrow Range Containment Pressure



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NOS. 95 AND 88 TO  
FACILITY OPERATING LICENSE NOS. DPR-42 AND DPR-60  
NORTHERN STATES POWER COMPANY  
PRAIRIE ISLAND NUCLEAR GENERATING PLANT, UNIT NOS. 1 AND 2  
DOCKET NOS. 50-282 AND 50-306

1.0 INTRODUCTION

By letter dated December 26, 1990, Northern States Power Company (NSP or the licensee) requested amendments to the Technical Specifications (TS) appended to Facility Operating License Nos. DPR-42 and DPR-60 for the Prairie Island Nuclear Generating Plant, Unit Nos. 1 and 2. The proposed amendments would revise the Technical Specification Tables TS.3.5-4 and TS.4.1-1 to incorporate the feedwater isolation specifications requested by Generic Letter 89-19 and would correct Table TS.4.1-1 to remove surveillances related to the low steam generator water level coincident with steam/feedwater mismatch reactor trip which was removed from the Technical Specifications by License Amendment Numbers 87 and 80, respectively.

2.0 EVALUATION

Generic Letter 89-19, "Request for Action Related to Resolution of Unresolved Safety Issue A-47," recommended that Technical Specifications for all Westinghouse plants include provisions to periodically verify the operability of the main feedwater overfill protection and ensure that the automatic overfill protection is operable during reactor power operation. By letter dated March 15, 1990, the licensee committed to submit a License Amendment Request to revise Technical Specification Table TS.3.5-4 to include limiting conditions for operations for feedwater isolation. The changes to Table TS.3.5-4 are being made in response to that commitment.

Inclusion of feedwater isolation limiting conditions for operations and surveillance requirements for both low and high steam generator level instrumentation will reduce the potential for a steam generator overfill event which may, in turn, reduce the probability of a steamline break or a steam generator tube rupture resulting from an overfill event. As a result, the margin of safety will be enhanced.

The actual surveillance testing performed at power will not be affected by the changes. The changes are only adding currently performed surveillance tests to the Technical Specifications and no additional testing will be required.

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Based on the above discussions, the staff finds the changes acceptable.

The licensee also proposed to revise Item 12 of Table TS.4.1-1 to eliminate the reference to flow mismatch and to only require surveillance of the steam flow instrument channels and to eliminate the footnote referenced for Item 12.

License Amendment Nos. 87 and 80, respectively, issued by letter dated April 3, 1989, found the Technical Specification changes associated with the elimination of the reactor trip initiated by low steam generator water level coincidence with steam/feedwater mismatch acceptable. However, the limiting conditions for operation and surveillances associated with that reactor trip remained in the Technical Specifications with footnotes stating that they would no longer be applicable following installation of the digital feedwater control system.

Following completion of the installation of the digital feedwater control system, the limiting conditions for operation and associated footnote were removed from the Technical Specifications by License Amendment Nos. 92 and 85, respectively, issued by letter dated March 13, 1990. Due to an oversight, the associated surveillance (Item 12 of Table TS.4.1-1) was not revised to eliminate the reference to flow mismatch and the footnote referenced from Item 12 was not eliminated.

The intent of the proposed changes described above is to complete the removal of the steam/feedwater flow mismatch reactor trip from the Prairie Island Technical Specifications as previously approved by License Amendment Nos. 87 and 80, respectively.

Based on the above discussion, the staff also finds these changes acceptable.

### 3.0 ENVIRONMENTAL CONSIDERATION

These amendments change a requirement with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 or changes in surveillance requirements. The staff has determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that these amendments involve no significant hazards consideration and there has been no public comment on such finding. Accordingly, these amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR Section 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of these amendments.

### 4.0 CONCLUSION

The staff has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the

issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public. The staff therefore concludes that the proposed changes are acceptable.

Principal Contributor: A. Masciantonio

Dated: April 30, 1991