December 3, 1993

Docket Nos. 50-282 and 50-306

> Mr. Roger O. Anderson, Director Licensing and Management Issues Northern States Power Company 414 Nicollet Mall Minneapolis, Minnesota 55401

Dear Mr. Anderson:

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SUBJECT: PRAIRIE ISLAND NUCLEAR GENERATING PLANT, UNIT NOS. 1 AND 2 -ASSUANCE OF AMENDMENTS RE: ADDITION OF REFERENCES TO APPROVED METHODOLOGY (TAC NOS. M87082 AND M87083)

The Commission has issued the enclosed Amendment No. 109 to Facility Operating License No. DPR-42 and Amendment No. 102 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 July 29, 1993.

The amendments incorporate a reference to the revised methodologies described in WCAP-13677-A, "10 CFR 50.46 Evaluation Model Report: <u>W</u>COBRA/TRAC Two-Loop Upper Plenum Injection Model Updates to Support Zirlo_{TM} Cladding Option" and NSPNAD-93003-A, "Prairie Island Units 1 and 2 Transient Power Distribution Methodology" into section 6.7.A.6.b of the Prairie Island TS.

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

Sincerely,

Original signed by

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

 Amendment No. 109 to DPR-42 Amendment No. 102 to DPR-60 Safety Evaluation 						P. Jun howe	C mods
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DATED: December 3, 1993

TO FACILITY OPERATING LICENSE NO. DPR-42-PRAIRIE ISLAND UNIT 1 AMENDMENT NO. 109 TO FACILITY OPERATING LICENSE NO. DPR-60-PRAIRIE ISLAND UNIT 2 AMENDMENT NO. 102 Docket File NRC & Local PDRs PDIII-1 Reading J. Roe, 13/E/4 J. Zwolinski, 13/H/24 A. Blough C. Jamerson M. Gamberoni (2) OGC-WF D. Hagan, 3206 MNBB G. Hill (4), P1-22 C. Grimes, 11/F/23 ACRS (10) OPA OC/LFDCB B. Jorgensen, R-III cc: Plant Service list

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Mr. Roger O. Anderson, Director Northern States Power Company Prairie Island Nuclear Generating Plant

cc:

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Regional Administrator, Region III U.S. Nuclear Regulatory Commission 799 Roosevelt Road Glen Ellyn, Illinois 60137

Mr. Jeff Cole, Auditor/Treasurer Goodhue County Courthouse Box 408 Red Wing, Minnesota 55066-0408

Kris Sanda, Commissioner Department of Public Service 121 Seventh Place East Suite 200 St. Paul, Minnesota 55101-2145

October 1993



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. 109 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 July 29, 1993, 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-42 is hereby amended to read as follows:

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Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. $_{109}$, 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 issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

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A. Randolph Blough, Acting Director Project Directorate III-1 Division of Reactor Projects - III/IV/V Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical Specifications

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Date of Issuance: December 3, 1993

ATTACHMENT TO LICENSE AMENDMENT NO. 109

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 vertical lines indicating the area of change.

REMOVE

INSERT

TS 6.7-5

TS 6.7-5

XN-NF-77-57 (A), XN-NF-77-57, Supplement 1 (A), "Exxon Nuclear Power Distribution Control for Pressurized Water Reactors Phase II", May, 1981

WCAP-13677, "10 CFR 50.46 Evaluation Model Report: <u>W</u>-COBRA/TRAC 2-Loop Upper Plenum Injection Model Update to Support ZIRLO_{TM} Cladding Options", April 1993 (approved by NRC SE dated November 26, 1993).

NSPNAD-93003-A, "Transient Power Distribution Methodology", (latest approved version)

- c. The core operating limits shall be determined such that all applicable limits (e.g., fuel thermal-mechanical limits, core thermal-hydraulic limits, ECCS limits, nuclear limits such as shutdown margin, and transient and accident analysis limits) of the safety analysis are met.
- d. The CORE OPERATING LIMITS REPORT, including any mid-cycle revisions or supplements thereto, shall be supplied upon issuance, for each reload cycle, to the NRC Document Control Desk with copies to the Regional Administrator and Resident Inspector.

B. REPORTABLE EVENTS

The following actions shall be taken for REPORTABLE EVENTS:

- a. The Commission shall be notified by a report submitted pursuant to the requirements of Section 50.73 to 10 CFR Part 50, and
- b. Each REPORTABLE EVENT shall be reviewed by the Operations Committee and the results of this review shall be submitted to the Safety Audit Committee and the Vice President Nuclear Generation.

Prairie Island Unit 1 Prairie Island Unit 2 Amendment No. 92, 93, 109 Amendment No. 85, 86, 102





NORTHERN STATES POWER COMPANY

DOCKET NO. 50-306

PRAIRIE ISLAND NUCLEAR GENERATING PLANT, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 102 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 July 29, 1993, 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.
- 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. 102, 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 issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

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A. Randolph Blough, Acting 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: December 3, 1993

ATTACHMENT TO LICENSE AMENDMENT NO. 102

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 vertical lines indicating the area of change.

REMOVE

<u>INSERT</u>

TS 6.7-5

TS 6.7-5

XN-NF-77-57 (A), XN-NF-77-57, Supplement 1 (A), "Exxon Nuclear Power Distribution Control for Pressurized Water Reactors Phase II", May, 1981

WCAP-13677, "10 CFR 50.46 Evaluation Model Report: <u>W</u>-COBRA/TRAC 2-Loop Upper Plenum Injection Model Update to Support ZIRLO_{TM} Cladding Options", April 1993 (approved by NRC SE dated November 26, 1993).

NSPNAD-93003-A, "Transient Power Distribution Methodology", (latest approved version)

- c. The core operating limits shall be determined such that all applicable limits (e.g., fuel thermal-mechanical limits, core thermal-hydraulic limits, ECCS limits, nuclear limits such as shutdown margin, and transient and accident analysis limits) of the safety analysis are met.
- d. The CORE OPERATING LIMITS REPORT, including any mid-cycle revisions or supplements thereto, shall be supplied upon issuance, for each reload cycle, to the NRC Document Control Desk with copies to the Regional Administrator and Resident Inspector.

B. REPORTABLE EVENTS

The following actions shall be taken for REPORTABLE EVENTS:

- a. The Commission shall be notified by a report submitted pursuant to the requirements of Section 50.73 to 10 CFR Part 50, and
- b. Each REPORTABLE EVENT shall be reviewed by the Operations Committee and the results of this review shall be submitted to the Safety Audit Committee and the Vice President Nuclear Generation.

Prairie Island Unit 1 Prairie Island Unit 2 Amendment No. **\$2**, **\$3**, 109 Amendment No. **\$5**, **\$6**, 102



UNITED STATES NUCLEAR REGULATORY COMMISSION WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NOS. 109 AND 102 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 July 29, 1993, the 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 incorporate references to the revised methodologies described in WCAP-13677 and NSPNAD-93003 into the Prairie Island TS.

2.0 EVALUATION

The proposed administrative change to TS Section 6.7.A.6.b would incorporate references to two revised core analysis methodologies. The first methodology, WCAP-13677-A, "10 CFR 50.46 Evaluation Model Report: <u>WCOBRA/TRAC Two-Loop</u> Upper Plenum Injection Model Updates to Support Zirlo_{TM} Cladding Option (April 1993)," is an update of the original Westinghouse COBRA/TRAC two-loop upper plenum injection large break loss-of-coolant accident (LOCA) model which supports the ZIRLOTM cladding option. This method was approved by the NRC staff in a Safety Evaluation (SE) dated November 26, 1993. The second methodology, NSP report NSPNAD-93003-A, "Prairie Island Units 1 and 2, Transient Power Distribution Methodology," was developed by NSP to generate V(z) curves applied to cycle specific or generic operations. This method was approved by the NRC staff in a SE dated July 16, 1993. Accordingly, the proposed amendments are acceptable.

3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Minnesota State Official was notified of the proposed issuance of the amendments. The State Official had no comments.

4.0 ENVIRONMENTAL CONSIDERATION

The amendments change a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR

Part 20. The NRC 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 the amendments involve no significant hazards consideration and there has been no public comment on such finding (58 FR 43929). Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 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 the amendments.

5.0 CONCLUSION

The Commission 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.

Principal Contributor: C. Bajwa

Date: December 3, 1993