

June 19, 1989

Docket No. 50-263

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

Dear Mr. Musolf:

SUBJECT: AMENDMENT NO. 67 TO FACILITY OPERATING LICENSE NO. DPR-22:
(TAC NO. 71973)

The Commission has issued the enclosed Amendment No. 67 to Facility Operating License No. DPR-22 for the Monticello Nuclear Generating Plant. This amendment consists of changes to the Technical Specifications (TS's) in response to your application dated January 31, 1989 as supplemented February 3, 1989.

The amendment revises Table 3.11.1 of the Technical Specifications to extend the Maximum Average Planar Linear Heat Generation Rate exposure limit of 40,000 MWD/MTU to 45,000 MWD/MTU for fuel types P8DRB265L and BP8DRB265L.

A copy of the related Safety Evaluation and Notice of Issuance are enclosed.

Sincerely,

/s/

John J. Stefano, Project Manager
Project Directorate III-1
Division of Reactor Projects - III, IV, V
& Special Projects
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 67 to
License No. DPR-22
2. Safety Evaluation
3. Notice

cc w/enclosures:
See next page

LA/PD31:DRSP
PShuttleworth
6/5/89

PM/PD31:DRSP
JStefano:cr
6/5/89

SRXB:NRR
MHodges
6/5/89

(A)D/PD31:DRSP
LYandell
6/19/89

OGC
Myung
6/15/89

DFol

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PDR ADOCK 05000263
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C/P-1
et



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

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Sincerely,

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John J. Stefano, Project Manager
Project Directorate III-1
Division of Reactor Projects - III, IV, V
& Special Projects

Office of Nuclear Reactor Regulation

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 3. Notice
- cc w/enclosures:
See next page

Monticello Nuclear Generating Plant

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

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Wright County Board of
Commissioners
10 NW Second Street
Buffalo, Minnesota 55313



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

NORTHERN STATES POWER COMPANY
DOCKET NO. 50-263
MONTICELLO NUCLEAR GENERATING PLANT
AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 67
License No. DPR-22

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Northern States Power Company (the licensee) dated January 31, 1989, supplemented February 3, 1989, 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-22 is hereby amended to read as follows:

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PDR ADDCK 05000263
P PNU

Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 67, 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



Lawrence Yandell, Acting Director
Project Directorate III-1
Division of Reactor Projects - III, IV, V
& Special Projects
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: June 19, 1989

ATTACHMENT TO LICENSE AMENDMENT NO. 67

FACILITY OPERATING LICENSE NO. DPR-22

DOCKET NO. 50-263

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

REMOVE

214

INSERT

214

TABLE 3.11.1 MAXIMUM AVERAGE PLANAR LINEAR HEAT GENERATION RATE vs. EXPOSURE

Exposure MWD/STU	MAPLHGR FOR EACH FUEL TYPE (kw/ft)					
	P8DRB265L BP8DRB265L	P8DRB282 BP8DRB282L	P8DRB284LB BP8DRB284LB	P8DRB299L BP8DRB299L	BD 319B	Other GE 8 Fuel
200	11.6	11.2	11.4	11.0	11.19	10.7
1,000	11.6	11.2	11.4	11.0	11.31	10.8
5,000	11.8	11.8	11.8	11.6	11.99	11.5
10,000	11.9	11.9	11.9	11.9	12.60	12.1
15,000	11.9	11.8	11.9	11.9	12.34	11.8
20,000	11.8	11.7	11.7	11.8	11.95	11.4
25,000	11.3	11.3	11.4	11.5	11.56	11.0
30,000	10.7	11.1	10.8	10.9	10.54	10.0
35,000	10.2	10.4	10.2	10.3	9.53	9.0
40,000	9.6	9.8	9.5	9.7	-	-
45,000	8.3	-	8.9	9.0	-	-
50,000	-	-	-	-	6.28	5.8

Note: For two recirculation loop operation. For single loop operation multiply these values by 0.85.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 67 TO FACILITY OPERATING LICENSE NO. DPR-22
NORTHERN STATES POWER COMPANY
MONTICELLO NUCLEAR GENERATING PLANT
DOCKET NO. 50-263

1.0 INTRODUCTION

By letter dated January 31, supplemented February 3, 1989, Northern States Power Company (the licensee) submitted a proposed license amendment to extend the Maximum Average Planar Linear Heat Generation Rate (MAPLHGR) limit for the Monticello Nuclear Generating Plant. The proposed amendment would revise the plant Technical Specifications to extend the MAPLHGR for fuel types P8DRB265L and BP8DRB265L and permit the plant to operate beyond the current MAPLHGR exposure limit of 40,000 MWd/MTU to 45,000 MWd/MTU. The licensee identified the methodology used and provided analyses to justify the extension of the exposure limit. The amendment would allow the licensee to extend the length of the current plant operating cycle through to August 1989 and meet expected power demands during the peak load summer months of 1989. The staff has reviewed the licensee's submittals and its findings and determinations are discussed below.

2.0 DISCUSSION AND EVALUATION

The MAPLHGR value for the P8DRB265 fuel types was determined using the results of calculations using the NRC approved methodology; i.e. General Electric Company's evaluation for the conformance of this type fuel bundle design for all thermal-mechanical criteria documented in GESTAR II under the category P8X8R fuel design.

The Emergency Core Cooling System evaluations for this fuel bundle are based on the SAFE/REFLOOD/CHASTE codes while the fuel rod thermal-mechanical evaluations were based on the TEXICO/CLAM (Appendix C of GESTAR II) methods. The peak pellet exposure for these fuel rod thermal-mechanical licensing evaluations was 50 GWd/MTU. Subsequent to these initial licensing evaluations for the P8X8R fuel design, the design was re-evaluated using the GESTR-MECHANICAL fuel rod thermal-mechanical methods and criteria. This evaluation confirms adequacy for this design out to a peak pellet exposure of 50 GWd/MTU. The fuel thermal-mechanical evaluations and criteria are described in Section 2.0 of GESTAR II (Revision 9 of the base document). Nuclear Regulatory Commission approval of TEXICO/CLAM is documented in the U.S. Supplement to GESTAR II, page US.C-113. Nuclear Regulatory Commission approval of GESTR-MECHANICAL is documented on page US.C-183. The LOCA analysis is described in GESTAR II, page US-28, Section S.2.2.3.2.

The licensee analyzed the MAPLHGR extension from 40,000 to 45,000 MWd/MTU using the aforementioned NRC-approved methodology. The 45,000 MWd/MTU MAPLHGR limit was calculated conservatively from thermal and mechanical consideration. The results showed that the peak clad temperature (PCT) is less than 1871°F and the oxidation is less than 1% under the LOCA condition. In view of these analytical results, and since the MAPLHGR extension (8.3 kW/ft at 45,000 MWd/MTU) meets the 10 CFR 50.46 requirements, the staff, concludes that the proposed MAPLHGR extension limit is acceptable for Monticello. Accordingly, the staff accepts the MAPLHGR extension from 40,000 MWd/MTU to 45,000 MWd/MTU in Technical Specification Table 3.11.1 (page 214) for Monticello as proposed.

3.0 ENVIRONMENTAL CONSIDERATION

Pursuant to 10 CFR 51.21, 51.32, and 51.35, an environmental assessment and finding of no significant impact has been prepared and published in the Federal Register on June 1, 1989, (54 FR 23551). Accordingly, based upon the environmental assessment, the Commission has determined that the issuance of this amendment will not have a significant effect on the quality of the human environment.

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; and (2) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributors: S. Wu
J. Stefano

Dated: June 19, 1989

UNITED STATES NUCLEAR REGULATORY COMMISSIONNORTHERN STATES POWER COMPANYDOCKET NO. 50-263NOTICE OF ISSUANCE OF AMENDMENTTO FACILITY OPERATING LICENSE

The United States Nuclear Regulatory Commission (the Commission) has issued Amendment No. 67 to Facility Operating License No. DPR-22, issued to the Northern States Power Company (the licensee), which revised the Technical Specifications for operation of the Monticello Nuclear Generating Plant, located in Wright County, Minnesota. The amendment was effective as of the dated of issuance.

The amendment changed Table 3.11.1 (page 214) of the plant Technical Specifications to add a 45,000 MWD/MTU Maximum Average Planar Linear Heat Generation Rate (MAPLHGR) for fuel types P8DRB265L and BP8DRB265L in order to extend the length of the current operating cycle through to August 1989 and meet expected power demands during the peak load summer months of 1989.

The application for the amendment 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 Commissions rules and regulations in 10 CFR Chapter I, which are set forth in the license amendment .

Notice of Consideration of Issuance of Amendment and Opportunity for Hearing in connection with this action was published in the FEDERAL REGISTER on February 22, 1989 (54 FR 7621). No request for hearing or petition for leave to intervene was filed following this notice.

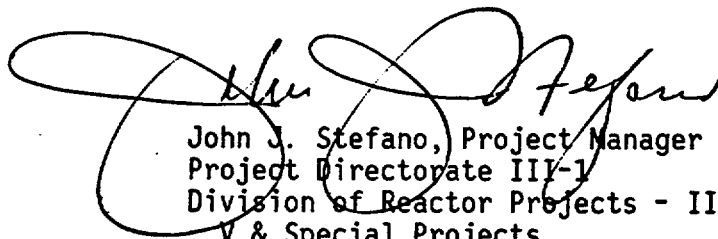
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P PNU

The Commission has prepared an Environmental Assessment related to the action and has determined not to prepare an environmental impact statement. Based upon the environmental assessment, the Commission has concluded that the issuance of this amendment will not have a significant effect on the quality of the human environment.

For further details with respect to this action, see (1) the application for amendment dated January 31, 1989, as supplemented by letter dated February 3, 1989; (2) Amendment No. 67 to License No. DPR-22; (3) the Commission's related Safety Evaluation and Environmental Assessment. All of these items are available for public inspection at the Commission's Public Document Room, Gelman Building, 2120 L Street, NW., Washington, DC 20555, and at the Minneapolis Public Library, Technology and Science Department, 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. 20055, Attention: Director, Division of Reactor Project III, IV, V & Special Projects

Dated at Rockville, Maryland, this 19th day of June 1989.

FOR THE NUCLEAR REGULATORY COMMISSION

A large, stylized handwritten signature in black ink, appearing to read "John J. Stefano". The signature is written over the typed name and title.

John J. Stefano, Project Manager
Project Directorate III-1
Division of Reactor Projects - III, IV,
V & Special Projects
Office of Nuclear Reactor Regulation

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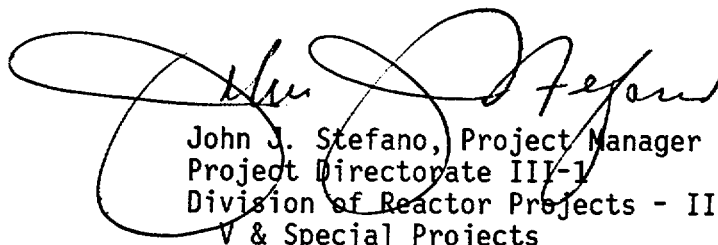
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Division of Reactor Projects - III, IV,
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