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Docket Nos. 50-282  
and 50-306

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

Dear Mr. Musolf:

SUBJECT: PRAIRIE ISLAND UNIT NOS. 1 AND 2 FIRE PROTECTION - REQUEST  
FOR EXEMPTION FROM A REQUIREMENT OF APPENDIX R TO 10 CFR  
PART 50, SECTION III.G

By letter dated December 6, 1982, you requested exemption from the requirements of Appendix R to 10 CFR Part 50. This exemption from Section III.G.3.b would remove the requirement to install a fixed fire suppression system in the Prairie Island Nuclear Generating Plant, Unit Nos. 1 and 2 control room. The Commission has granted this request as described in the enclosed Exemption.

A copy of the Exemption is being filed with the Office of the Federal Register for publication.

Sincerely,

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

Enclosure:  
Exemption

cc w/enclosure:  
See next page

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PDR ADOCK 05000282  
F PDR

*DC 1/25/83*  
*as per the Correction*  
*JVM*  
*OK as marked*

OFFICE	ORB#3:DL	ORB#3:DL	ORB#3:DL	ORB#5:DL	AD/OR/DL	OELD	D:DL
SURNAME	PMKreutzer	DCDiIanni/pn	RAClark	TWambach	GCLamas	C. Shields	DEisenhut
DATE	1/25/83	1/24/83	1/24/83	1/25/83	1/27/83	1/27/83	2/1/83



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

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PMKreutzer

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.
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- 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: Exemption: Fire Protection

Division of Licensing  
Office of Nuclear Reactor Regulation

Enclosure:  
As Stated

OFFICE	ORB#3: D				
SURNAME	PMKreutzer/pn				
DATE	2/2/83				

Northern States Power Company

cc:

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Minnesota Pollution Control Agency  
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Roseville, Minnesota 55113

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County Auditor  
Red Wing, Minnesota 55066

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Federal Activities Branch  
Region V Office  
ATTN: Regional Radiation  
Representative  
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Resident Inspectors Office  
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Welch, Minnesota 55089

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

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

In the Matter of	)	
	)	
NORTHERN STATES POWER	)	Docket Nos. 50-282 and 50-306
COMPANY	)	
(Prairie Island Nuclear Generating	)	
Plant Unit Nos. 1 and 2	)	

EXEMPTION

I.

The Northern States Power Company (the licensee) is the holder of Facility Operating License Nos. DPR-42 and DPR-60 which authorize operation of the Prairie Island Nuclear Generating Plant, Unit Nos. 1 and 2. These licenses provide, among other things, that they are subject to all rules, regulations and Orders of the Commission now or hereafter in effect.

The facility comprises two pressurized water reactors at the licensee's site located in Goodhue, Minnesota.

II.

On November 19, 1980, the Commission published a revised Section 10 CFR 50.48 and a new Appendix R to 10 CFR 50 regarding fire protection features of nuclear power plants (45 FR 76602). The revised Section 50.48 and Appendix R became effective on February 17, 1981. Section III.G., of Appendix R contains fifteen subsections, lettered A through O, each of which specifies requirements for a particular aspect of the fire protection features at a nuclear power plant. One of these fifteen subsections, III.G., is the subject of this exemption request. III.G. specifies detailed requirements for fire protection of the equipment used for safe shutdown by means of separation and barriers (III.G.2). If the requirements for separation

and barriers could not be met in an area, alternative safe shutdown capability, independent of that area and equipment in that area, was required (III.G.3).

By letter dated December 6, 1982 the licensee requested an exemption from the requirements of Section III.G.3b to the extent that it requires the installation of a fixed fire suppression system in the control room. In support of this request the licensee notes the existing fire protection features, the fact that the control room is continuously manned and the potentially adverse impact on equipment and personnel occupancy of an inadvertent initiation of a fixed suppression system.

### III.

We have reviewed the licensee's exemption request. The control room is located at the 735' elevation bounded by 3-hour rated fire barriers. Safe shutdown equipment in the room consists of the main control consoles and cabinets, including redundant control cables, indicating instruments and relays.

Existing fire protection consists of an ionization-type smoke detection system located throughout the room, and a manual suppression system within and just outside the control room. The room is continuously manned and access to it is controlled. In the event the control room becomes uninhabitable due to smoke or heat, an alternate system located outside the control room can be used to achieve safe shutdown. In addition, the control room has a 4,000 cfm of ventilation system with 10,000 cfm recirculation capability that is capable of rapidly

removing smoke and byproducts. We have judged that the control room area is uncongested, access for manual suppression is considered excellent and the fire loading is light.

The intent of Section III.G is to require an acceptable level of fire safety to assure the maintenance of safe shutdown capability. Because the control room is continuously manned and has other fire protection features described above, there is reasonable assurance that a fire would be promptly extinguished. Therefore, the installation of a fixed fire suppression system will not significantly increase the level of fire protection in the control room and the exemption requested by the licensee should be granted.

#### IV.

Accordingly, the Commission has determined that, pursuant to 10 CFR 50.12, an exemption is authorized by law and will not endanger life or property or common defense and security and is otherwise in the public interest and hereby grants an exemption from the requirements of Section III.G.3b of Appendix R to 10 CFR 50 to the extent that it requires the installation of a fixed fire suppression system in the control room at Prairie Island.

The NRC staff has determined that the granting of this Exemption 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 this action.

FOR THE NUCLEAR REGULATORY COMMISSION



Darrell G. Eisenhut, Director  
Division of Licensing  
Office of Nuclear Reactor Regulation

Dated at Bethesda, Maryland  
this 2nd day of February, 1983.