

# REGULATORY DOCKET FILE COPY

Distribution:

Docket

OCTOBER 24 1980

Dockets Nos. 50-282  
and 50-306

NRC PDR  
Local PDR  
ORB#3 Reading  
NRR Reading  
H. R. Denton  
E. G. Case  
R. Hartfield, MPA  
G. Bennington, MPA  
D. Eisenhut  
R. Purple  
T. Novak  
R. Tedesco  
G. Lainas  
*J. Murray*

J. Roe  
PMKreutzer (3)  
M. Williams  
OELD  
OI&E (3)  
B. Jones (4)  
ACRS (16)  
OPA (Clare Miles)  
NSIC  
TERA  
Secretariat (SECY)  
R. Diggs  
J. Heltemes, AEOD  
Project Manager  
RAClark

Mr. L. O. Mayer, Manager  
Nuclear Support Services  
Northern States Power Company  
414 Nicollet Mall - 8th Floor  
Minneapolis, Minnesota 55401

Dear Mr. Mayer:

SUBJECT: ORDER FOR MODIFICATION OF LICENSE CONCERNING ENVIRONMENTAL  
QUALIFICATION OF SAFETY-RELATED ELECTRICAL EQUIPMENT

Ref. (a) Commission Memorandum and Order of May 23, 1980 (80-CLI-21)  
Ref. (b) Inspection and Enforcement Bulletin Supplement No. 2 to  
IEB-79-01B, September 30, 1980.

This letter transmits an Order for Modification of License which changes the Technical Specifications for Prairie Island Nuclear Generating Plant, Unit Nos. 1 and 2. This change is a result of Ref. (a) which required the staff to codify the documentation requirements for the qualification of safety-related electrical equipment. A copy of the Order is being filed with the Office of the Federal Register for publication.

The deadline of November 1, 1980 for submittal of the qualification information is not changed by this Order. Some additional information regarding the file is contained in Ref. (b). Questions regarding this Order should be directed through your Project Manager.

Sincerely,

Original Signed By

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

Enclosure:  
Order

cc w/enclosure: See Next Page

801140683

OFFICE	ORB#3:DL	ORB#3:DL	ORB#3:DL	ORB#2:DL	D:DL
SURNAME	PMKreutzer/JL	PM [Signature]	RAClark	M Williams	D Eisenhut
DATE	10/24/80	10/24/80	10/24/80	10/24/80	10/24/80



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

October 24, 1980

Dockets Nos. 50-282  
and 50-306

Mr. L. O. Mayer, Manager  
Nuclear Support Services  
Northern States Power Company  
414 Nicollet Mall - 8th Floor  
Minneapolis, Minnesota 55401

Dear Mr. Mayer:

SUBJECT: ORDER FOR MODIFICATION OF LICENSE CONCERNING ENVIRONMENTAL  
QUALIFICATION OF SAFETY-RELATED ELECTRICAL EQUIPMENT

Ref. (a) Commission Memorandum and Order of May 23, 1980 (80-CLI-21)  
Ref. (b) Inspection and Enforcement Bulletin Supplement No. 2 to  
IEB-79-01B, September 30, 1980.

This letter transmits an Order for Modification of License which changes the Technical Specifications for Prairie Island Nuclear Generating Plant, Unit Nos. 1 and 2. This change is a result of Ref. (a) which required the staff to codify the documentation requirements for the qualification of safety-related electrical equipment. A copy of the Order is being filed with the Office of the Federal Register for publication.

The deadline of November 1, 1980 for submittal of the qualification information is not changed by this Order. Some additional information regarding the file is contained in Ref. (b). Questions regarding this Order should be directed through your Project Manager.

Sincerely,

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

Enclosure:  
Order

cc w/enclosure: See Next Page

Mr. L. O. Mayer  
Northern States Power Company

- 2 -

October 24, 1980

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

Ms. Terry Hoffman  
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. F. P. Tierney, Plant Manager  
Prairie Island Nuclear Generating Plant  
Northern States Power Company  
Route 2  
Welch, Minnesota 55089

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

Robert L. Nybo, Jr., Chairman  
Minnesota-Wisconsin Boundary Area  
Commission  
619 Second Street  
Hudson, Wisconsin 54016

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

Mr. John C. Davidson, Chairman  
Goodhue County Board of Commissioners  
321 West Third Street  
Red Wing, Minnesota 55066

Bernard M. Cranum  
Bureau of Indian Affairs, DOI  
831 Second Avenue South  
Minneapolis, Minnesota 55402

Director, Technical Assessment Division  
Office of Radiation Programs (AW-459)  
U. S. Environmental Protection Agency  
Crystal Mall #2  
Arlington, Virginia 20460

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

Chairman, Public Service Commission  
of Wisconsin  
Hill Farms State Office Building  
Madison, Wisconsin 53702

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

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

ORDER FOR MODIFICATION OF LICENSES

I.

Northern States Power Company (licensee) is the holder of License Nos. DPR-42 and DPR-60 which authorize the operation of the Prairie Island Nuclear Generating Plant, Unit Nos. 1 and 2 at steady state reactor power levels not in excess of 1650 megawatts thermal (rated power). The facilities consist of two Pressurized Water Reactors located at the licensee's site in Goodhue County, Minnesota.

II.

On November 4, 1977, the Union of Concerned Scientists (UCS) filed with the Commission a "Petition for Emergency and Remedial Relief." The petition sought action in two areas: fire protection for electrical cables, and environmental qualification of electrical components. By Memorandum and Order dated April 13, 1978 (7 NRC 400), the Commission denied certain aspects of the petition and, with respect to other aspects, ordered the NRC staff to take several related actions. UCS filed a Petition for Reconsideration on May 2, 1978. By Memorandum and Order, dated May 23, 1980, the Commission reaffirmed its April 13, 1978 decision regarding the possible shutdown of operating reactors. However, the Commission's May 23, 1980 decision directed licensees and the NRC staff to undertake certain actions.

With respect to environmental qualification of safety-related electrical equipment, the Commission determined that the provisions of the two staff documents - the Division of Operating Reactors "Guidelines for Evaluating Environmental Qualification of Class IE Electrical Equipment in Operating Reactors" (DOR Guidelines) and NUREG-0588, "Interim Staff Position on Environmental Qualification of Safety-Related Electrical Equipment," December 1979 (copies attached) "form the requirements which licensees and applicants must meet in order to satisfy those aspects of 10 CFR Part 50, Appendix A General Design Criterion (GDC-4), which relate to environmental qualifications of safety-related electrical equipment." The Commission directed, for replacement parts in operating plants, "unless there are sound reasons to the contrary, the 1974 standard in NUREG-0588 will apply." The Commission also directed the staff to complete its review of the information sought from licensees by Bulletin 79-01B<sup>1</sup> and to complete its review of environmental qualification of safety-related electrical equipment in all operating plants, including the publication of Safety Evaluation Reports, by February 1, 1981. The Commission imposed a deadline that, "by no later than June 30, 1982 all safety-related electrical equipment in all operating plants shall be qualified to the DOR Guidelines or NUREG-0588."

<sup>1</sup>

Bulletin 79-01B was not sent to licensees for plants under review as part of the staff's Systematic Evaluation Program. The information sought by Bulletin 79-01B was requested from these licensees by a series of letters and meetings during the months of February and March, 1980.

The Commission requested the staff to, "keep the Commission and the public apprised of any further findings of incomplete environmental qualification of safety-related electrical equipment, along with corrective actions taken or planned," and requested the staff to provide bi-monthly progress reports to the Commission.

The Commission further directed that, "In order to leave no room for doubt on this issue, the staff is to prepare additional Technical Specifications for all operating plants which codify the documentation requirement paragraph of the Guidelines (paragraph 8.0)." The staff was directed to add these documentation requirements to each license after they were approved by the Commission.

The Commission also pointed out that the various deadlines imposed in its Order, "do not excuse a licensee from the obligation to modify or replace inadequate equipment promptly."

### III.

The Commission has approved the Technical Specification provisions set forth in Section IV below which specify documentation requirements and which specifically impose on the licensee the requirement of the Commission's May 23, 1980 Memorandum and Order that by no later than June 30, 1982 all safety-related electrical equipment shall be qualified to the DOR Guidelines or NUREG-0588.

The information developed during the Commission review of the UCS Petition emphasizes the importance of prompt completion of the upgrading of

environmental qualification of safety-related electrical equipment to conform to the DOR Guidelines or NUREG-0588 and of adequate documentation of equipment qualifications. The deadlines set forth in the Commission's Memorandum and Order dated May 23, 1980, assure that such upgrading will be accomplished promptly. In order to assure prompt completion of necessary qualification work or replacement of unqualified components, if necessary, in conformance with the requirements of the Commission's Memorandum and Order dated May 23, 1980, and to provide complete and adequate documentation as promptly as possible, such upgrading and documentation work must commence immediately. Therefore, I have concluded that the public health, safety and interest require this Order for Modification of License to be effective immediately.

#### IV.

Accordingly, pursuant to the Atomic Energy Act of 1954, as amended, and the Commission's Rules and Regulations in 10 CFR Parts 2 and 50, IT IS ORDERED THAT EFFECTIVE IMMEDIATELY Facility Operating License Nos. DPR-42 and DPR-60 are hereby amended to add the following provisions to the Appendix A Technical Specifications.

- (a) "By no later than June 30, 1982, all safety-related electrical equipment in the facility shall be qualified in accordance with the provisions of: Division of Operating Reactors "Guidelines for Evaluating Environmental Qualification of Class IE Electrical Equipment in Operating Reactors" (DOR Guidelines); or, NUREG-0588, "Interim Staff Position on Environmental

Qualification of Safety-Related Electrical Equipment," December 1979. Copies of these documents are attached to Order for Modification of Licenses DPR-42 and DPR-60 dated October 24, 1980.

- (b) "By no later than December 1, 1980, complete and auditable records must be available and maintained at a central location which describe the environmental qualification method used for all safety-related electrical equipment in sufficient detail to document the degree of compliance with the DOR Guidelines or NUREG-0588. Thereafter, such records should be updated and maintained current as equipment is replaced, further tested, or otherwise further qualified."

To effectuate the foregoing, appropriate pages for incorporation into the Technical Specifications are attached to this Order.

V.

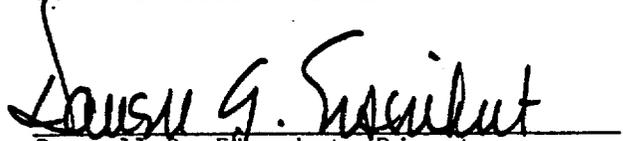
The licensee or any person whose interest may be affected by this Order may request a hearing within 20 days of the date of publication of this Order in the Federal Register. Any request for a hearing will not stay the effective date of this Order. Any request for a hearing shall be addressed to the Director, Office of Nuclear Reactor Regulation, U. S. Nuclear Regulatory Commission, Washington, D. C. 20555. A copy of the request should also be sent to the Executive Legal Director, U. S. Nuclear Regulatory Commission, Washington, D. C. 20555, and to Gerald Charnoff, Esq., Shaw, Pittman, Potts and Trowbridge, 1800 M Street, N. W., Washington, D. C. 20036, attorney for the licensee.

If a hearing is held concerning this Order, the issues to be considered at the hearing shall be:

- a. whether the licensee should be required to have the environmental qualification records referred to in Section IV, above, available at a central location by no later than December 1, 1980; and
- b. whether all safety-related electrical equipment should be qualified as required in Section IV, above, by no later than June 30, 1982.

Operation of the facility on terms consistent with this Order is not stayed by the pendency of any proceedings on the Order.

FOR THE NUCLEAR REGULATORY COMMISSION

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

Effective Date: October 24, 1980  
Bethesda, Maryland

Attachments:

1. Technical Specification Pages
2. Guidelines for Evaluating Environmental Qualification of Class IE Electrical Equipment in Operating Reactors
3. NUREG-0588, Interim Staff Position on Environmental Qualification of Safety-Related Electrical Equipment.

6. Plant radiation and contamination surveys.
7. Changes made to the plant as it is described in the Final Safety Analysis Report, reflected in updated, corrected and as-built drawings.
8. Cycling beyond normal limits for those components that have been designed to operate safely for a limited number of cycles beyond such limits.
9. Reactor coolant system in-service inspections.
10. Minutes of meetings of the Safety Audit Committee.
11. Records of Environmental Qualification which are covered under the provisions of paragraph 6.8.

## 6.8 Environmental Qualification

A. By no later than June 30, 1982 all safety-related electrical equipment in the facility shall be qualified in accordance with the provisions of: Division of Operating Reactors "Guidelines for Evaluating Environmental Qualification of Class IE Electrical Equipment in Operating Reactors" (DOR Guidelines); or, NUREG-0588 "Interim Staff Position on Environmental Qualification of Safety-Related Electrical Equipment", December 1979. Copies of these documents are attached to Order for Modification of Licenses DPR-42 and DPR-60 dated October 24, 1980.

B. By no later than December 1, 1980, complete and auditable records must be available and maintained at a central location which describe the environmental qualification method used for all safety-related electrical equipment in sufficient detail to document the degree of compliance with the DOR Guidelines or NUREG-0588. Thereafter, such records should be updated and maintained current as equipment is replaced, further tested, or otherwise further qualified.

6. Plant radiation and contamination surveys.
7. Changes made to the plant as it is described in the Final Safety Analysis Report, reflected in updated, corrected and as-built drawings.
8. Cycling beyond normal limits for those components that have been designed to operate safely for a limited number of cycles beyond such limits.
9. Reactor coolant system in-service inspections.
10. Minutes of meetings of the Safety Audit Committee.
11. Records of Environmental Qualification which are covered under the provisions of paragraph 6.8.

## 6.8 Environmental Qualification

- A. By no later than June 30, 1982 all safety-related electrical equipment in the facility shall be qualified in accordance with the provisions of: Division of Operating Reactors "Guidelines for Evaluating Environmental Qualification of Class IE Electrical Equipment in Operating Reactors" (DOR Guidelines); or, NUREG-0588 "Interim Staff Position on Environmental Qualification of Safety-Related Electrical Equipment", December 1979. Copies of these documents are attached to Order for Modification of Licenses DPR-42 and DPR-60 dated October 24, 1980.
  
- B. By no later than December 1, 1980, complete and auditable records must be available and maintained at a central location which describe the environmental qualification method used for all safety-related electrical equipment in sufficient detail to document the degree of compliance with the DOR Guidelines or NUREG-0588. Thereafter, such records should be updated and maintained current as equipment is replaced, further tested, or otherwise further qualified.