

OCT 24 1977

Docket No. 50-263

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

Gentlemen:

In response to your request dated September 19, 1977, as supplemented by letter dated September 27, 1977, the Commission has issued the enclosed Amendment No. 31 to Provisional Operating License No. DPR-22 for the Monticello Nuclear Generating Plant.

The amendment consists of changes to the Technical Specifications which modify inservice inspection requirements for the control rod housing pressure boundary welds and which add a clarifying statement concerning the specified inspection intervals and extent of examinations. Other requirements related to inservice inspection and testing will be further modified in the future by Technical Specification actions related to the implementation of Title 10 of the Code of Federal Regulations Part 50, Paragraph 50.55a(g).

Copies of the related Safety Evaluation and the Notice of Issuance are also enclosed.

Sincerely,

*Don K. Davis*

Don K. Davis, Acting Chief  
 Operating Reactors Branch #2  
 Division of Operating Reactors

*Notified NSP  
 (Dave Musolf)  
 10/14/77  
 1555  
 [Signature]*

Enclosures:

1. Amendment No. 31 to License No. DPR-22
2. Safety Evaluation
3. Notice

cc w/enclosures:  
 See next page

OFFICE →	ORB#2:DOR	ORB#2:DOR	EB	OELD CATCHIN	C-ORB#2:DOR
SURNAME →	RDiggs	RSnaider:dn	LShao	[Signature]	DKDAVIS
DATE →	10/17/77	10/16/77	10/17/77	10/14/77	10/14/77

October 14, 1977

cc

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Federal Activities Branch  
Region V Office  
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Chicago, Illinois 60604

Mr. D. S. Douglas, Auditor  
Wright County Board of Commissioners  
Buffalo, Minnesota 55313

cc w/enclosures and cy of NSPCo  
filings dtd. 9/19/77 and 9/27/77  
State Department of Health  
ATTN: Secretary & Executive Officer  
University Campus  
Minneapolis, Minnesota 55440



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

NORTHERN STATES POWER COMPANY

DOCKET NO. 50-263

MONTICELLO NUCLEAR GENERATING PLANT

AMENDMENT TO PROVISIONAL OPERATING LICENSE

Amendment No. 31  
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 September 19, 1977, as supplemented by letter dated September 27, 1977, 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 3.B of Provisional License No. DPR-22 is hereby amended to read as follows:

3.B Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 31, 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



Don K. Davis, Acting Chief  
Operating Reactors Branch #2  
Division of Operating Reactors

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: October 14, 1977

ATTACHMENT TO LICENSE AMENDMENT NO. 31

PROVISIONAL OPERATING LICENSE NO. DPR-22

DOCKET NO. 50-263

Replace page 125 of the Technical Specifications contained in Appendix A of the above-indicated license with the attached page 125. The changed area on the revised page is reflected by a marginal line. In addition, add new page 129A.

Table 4.6.1 - Continued

CATEGORY	EXAMINATION AREA	EXAM METHOD	INSPECTION INTERVAL	EXTENT OF EXAMINATION
D (2)	Nozzle-to-vessel head welds & nozzle-to-head inside radiused section	Visual and Volumetric	Cumulative 100% coverage of nozzle-to-head weld, 100% of inner radius section of the nozzle-to-head junction over 20% of the weld at the end of 10 yrs.	2) <u>Vessel Head Nozzle Welds</u> Head Instrumentation (2) - 1/5 yrs Head Spray Inlet (1) - 1/10 yrs
E (1)	Control rod drive penetrations			Note: Not accessible
(2)	Control Rod housing pressure boundary welds	Pressure Tests	-	Leakage test following each refueling outage and hydrostatic test at end of 10 yr
F (1)	Primary Nozzles to safe-end welds	Visual, Surface & Volumetric	Cumulative 100% at end of 10 yr. interval (4" and longer.)	1) <u>Safe-end nozzles</u> Recirc. Outlet (2) - 1/5 yrs. Recirc. Inlet (10) - 1/yr. Main Steam Outlet (4) - 1/2.5 yrs. Rtr. Feedwater Inlet (4) - 1/2.5 yrs. Core Spray Inlet (4) - 1/5 yrs.
(2)	Vessel, Pump & Valve safe-ends to primary pipe welds & safe-ends in branch piping welds	Visual Surface, & Volumetric	Cumulative 100% at end of 10 yr. interval	2) All safe-end welds in pump, valve & branch piping to be inspected within the 10 yr. interval
G (1)	Closure studs and nuts	Visual, Surface, & Volumetric	During 10 yr. interval	1) 100% of vessel studs & nuts will be visually inspected each year. 10% of vessel studs will be ultrasonic inspected each year.

Table 4.6.1  
IN-SERVICE INSPECTION REQUIREMENTS  
FOR MONTICELLO

Notes:

1. The specified inspection interval and extent of examination are nominal values only. Inservice inspection may be performed during normal plant outages such as refueling shutdowns or maintenance shutdowns occurring during the inspection interval. Except where it is stated that examinations may be deferred to the end of the inspection interval, at least 25% of the required examination shall have been completed by the expiration of one-third of the inspection interval (with credit for no more than 33-1/3% if additional examinations are completed) and at least 50% shall have been completed by the expiration of two-thirds of the inspection interval (with credit for no more than 66-2/3%). The remaining required examinations shall be completed by the end of the inspection interval. Inspection intervals may be extended by as much as one year to permit inspections to be concurrent with plant outages.

3.6/4.6

129A

Amendment No. 31



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
SUPPORTING AMENDMENT NO. 31 TO PROVISIONAL OPERATING LICENSE NO. DPR-22

NORTHERN STATES POWER COMPANY  
MONTICELLO NUCLEAR GENERATING PLANT

DOCKET NO. 50-263

Introduction

By letter dated September 19, 1977, as supplemented by letter dated September 27, 1977, Northern States Power Company (NSP) requested changes to the Technical Specifications for the Monticello Nuclear Generating Plant. The proposed amendment would modify the examination method for a required inservice inspection of certain welds and would add a note incorporating the inservice inspection scheduler requirements of Section XI of the ASME (American Society of Mechanical Engineers) Boiler and Pressure Vessel Code, 1974 Edition through Summer 1975 Addenda.

Discussion and Evaluation

The present Monticello Technical Specification Table 4.6.1, "In-Service Inspection Requirements for Monticello," requires, under Category E(2), that control rod housing pressure boundary welds be volumetrically examined. Additionally, the extent of examination is specified to be three thimbles (control rod drive housings) each year for approximately 25% (there are 121 total rods) in 10 years. The proposed change would replace these volumetric inspections with visual inspections during pressure tests.

Paragraph IWB-1220(b)(1) of the ASME Section XI Code, 1974 Edition, allows exemption from volumetric and surface examination if "under the postulated condition of loss of coolant from the component during normal reactor operation, the reactor can be shut down and cooled down in an orderly manner assuming makeup is provided by the reactor coolant makeup system only." The reactor coolant makeup system is defined by the Code to be: "... those systems that have the capability to

maintain reactor coolant inventory under the respective conditions of startup, hot standby, operation or cooldown, using onsite power."

NSP was asked to provide an analysis which showed that failure of one of the welds in question would not result in a leak which exceeded the makeup system capacity. This analysis was provided by NSP letter dated September 27, 1977. We have reviewed this analysis and have concluded that the unlikely simultaneous failure of several control rod housing pressure boundary welds would not result in leakage which exceeded that of the available reactor coolant makeup systems (Reactor Core Isolation Cooling (RCIC) at 400 gpm and Control Rod Drive System (2 pumps) at 120 gpm). We have further determined that both RCIC and the Control Rod Drive System will function with power supplied by onsite power sources alone and thus fall within the above definition of the reactor coolant makeup system.

NSP also noted in the September 19, 1977, submittal that the present Monticello Technical Specification Table 4.6.1, Category E(2), was based upon a preliminary version of the ASME inservice inspection requirements. This version was not adopted. NSP has performed volumetric examinations during the last six years and in so doing has accumulated significant occupational radiation exposure to inservice inspection personnel.

Based on the above considerations, we have concluded that the requested change to the inservice inspection requirements for the control rod drive pressure boundary welds, Category E(2) on Table 4.6.1, would be beneficial from the standpoint of reduction of radiation exposure, does not constitute a safety hazard, and is in conformance with the codes and standards for inservice inspection approved for use by the Commission. The proposed change is therefore approved.

The other proposed change would add a new note to Table 4.6.1 which would incorporate schedular requirements for the performance of inspections of Table 4.6.1. The existing specification is more rigid with respect to annual inspection requirements than current staff requirements and is not in conformance with the requirements of ASME Section XI, which provides inspection flexibility, especially with regard to scheduling inspections during normal plant outages. Because the proposed change would incorporate the guidance of ASME Section XI, we have found the proposed change acceptable.

### Environmental Consideration

We have determined that the amendment does not authorize a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that the amendment involves an action which is insignificant from the standpoint of environmental impact and pursuant to 10 CFR §51.5(d)(4) that an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of this amendment.

### Conclusion

We have concluded, based on the considerations discussed above, that: (1) because the amendment does not involve a significant increase in the probability or consequences of accidents previously considered and does not involve a significant decrease in a safety margin, the amendment does not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) 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.

Date: October 14, 1977

UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKET NO. 50-263

NORTHERN STATES POWER COMPANY

NOTICE OF ISSUANCE OF AMENDMENT TO PROVISIONAL  
OPERATING LICENSE

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 31 to Provisional Operating License No. DPR-22, issued to Northern States Power Company (the licensee), which revised Technical Specifications for operation of the Monticello Nuclear Generating Plant (the facility) located in Wright County, Minnesota. The amendment is effective as of its date of issuance.

The amendment revised the existing Monticello Technical Specifications to modify inservice inspection requirements for the control rod housing pressure boundary welds and to add a clarifying statement concerning specified inspection intervals and the extent of examinations.

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 Commission's rules and regulations in 10 CFR Chapter I, which are set forth in the license amendment. Prior public notice of this amendment was not required since the amendment does not involve a significant hazards consideration.

The Commission has determined that the issuance of this amendment 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 issuance of this amendment.

For further details with respect to this action, see (1) the application for amendment dated September 19, 1977, as supplemented by letter dated September 27, 1977, (2) Amendment No. 31 to License No. DPR-22, and (3) the Commission's related Safety Evaluation. All of these items are available for public inspection at the Commission's Public Document Room, 1717 H Street, N. W., Washington, D. C. and at The Environmental Conservation Library, Minneapolis Public Library, 300 Nicollet Mall, Minneapolis, Minnesota 55401. A single copy of items (2) and (3) may be obtained upon request addressed to the U. S. Nuclear Regulatory Commission, Washington, D. C. 20555, Attention: Director, Division of Operating Reactors.

Dated at Bethesda, Maryland, this 14th day of October, 1977.

FOR THE NUCLEAR REGULATORY COMMISSION

  
Don K. Davis, Acting Chief  
Operating Reactors Branch #2  
Division of Operating Reactors