Docket No. 50-263

April 15, 1994

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

Dear Mr. Anderson:

SUBJECT: MONTICELLO NUCLEAR GENERATING PLANT - ISSUANCE OF AMENDMENT RE: REVISED COOLANT LEAKAGE MONITORING FREQUENCY (TAC NO. M87009)

The Commission has issued the enclosed Amendment No. 87 to Facility Operating License No. DPR-22 for the Monticello Nuclear Generating Plant. The amendment consists of changes to the Technical Specifications (TS) in response to your application dated July 7, 1993.

The amendment changes Technical Specification 3.6.D, "Primary System Boundary, Coolant Leakage," and the corresponding surveillance requirements.

A copy of our related Safety Evaluation is also enclosed. Notice of Issuance will be included in the Commission's biweekly Federal Register notice.

Sincerely,

Original signed by:

Beth A. Wetzel, Acting Project Manager
Project Directorate III-1
Division of Reactor Projects - III/IV
Office of Nuclear Reactor Regulation

Enclosures:
1. Amendment No. 87 to DPR-22
2. Safety Evaluation

cc w/enclosures:
See next page

*See previous concurrence

OFFICE	LA:PD31	PM:PD31	SRXB*	EMCB*	OGC	PD:P31
NAME	CJamerson	BWetzel	RJones	JStrosnider	EHoller	LBMarsh
DATE	03/17/94	03/17/94	02/08/94	03/16/94	03/23/94	04/14/94

OFFICIAL RECORD COPY FILENAME: G:\WPDOCS\MONTICEL\MON87009.AMD

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DATED: April 15, 1994

AMENDMENT NO. 87 TO FACILITY OPERATING LICENSE NO. DPR-22-MONTICELLO

Docket File
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cc: Plant Service list

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

NORTHERN STATES POWER COMPANY

DOCKET NO. 50-263

MONTICELLO NUCLEAR GENERATING PLANT

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 87
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 July 7, 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-22 is hereby amended to read as follows:

Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 87 , 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

Ledyard B. Marsh, Director
Project Directorate III-1
Division of Reactor Projects - III/IV
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: April 15, 1994

ATTACHMENT TO LICENSE AMENDMENT NO. 87

FACILITY OPERATING LICENSE NO. DPR-22

DOCKET NO. 50-263

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 areas of change.

REMOVE	INSERT
126	126
---	126a

3.0 LIMITING CONDITIONS FOR OPERATION	4.0 SURVEILLANCE REQUIREMENTS
D. Coolant Leakage	D. Coolant Leakage
1. Any time irradiated fuel is in the reactor vessel and coolant temperature is above 212°F, reactor coolant system leakage, based on sump monitoring, shall be limited to: a. 5 gpm Unidentified Leakage b. 2 gpm increase in Unidentified Leakage within any 24 hour period c. 20 gpm Identified Leakage d. no pressure boundary leakage	1. Any time irradiated fuel is in the reactor vessel and coolant temperature is above 212°F, the following surveillance program shall be carried out: a. Unidentified and Identified Leakage rates shall be recorded once per shift not to exceed 12 hours using primary containment floor and equipment drain sump monitoring equipment.
2. With reactor coolant system leakage greater than 3.6.D.1.a or 3.6.D.1.c above, reduce the leakage rate to within acceptable limits within four hours or initiate an orderly shutdown of the reactor and reduce reactor water temperature to less than 212°F within 24 hours.	2. The reactor coolant system leakage detection systems shall be demonstrated OPERABLE by: a. Primary containment atmosphere particulate monitoring systems-performance of a sensor check at least once per 12 hours, a channel functional test at least monthly and a channel calibration at least once per cycle.
3. With an increase in Unidentified Leakage in excess of the rate specified in 3.6.D.1.b, identify the source of increased leakage within four hours or initiate an orderly shutdown of the reactor and reduce reactor water temperature to less than 212°F within 24 hours.	b. Primary containment sump leakage measurement system-performance of a sensor check at least once per shift not to exceed 12 hours and a channel calibration test at least once per cycle.
4. If any Pressure Boundary Leakage is detected when the corrective actions outlined in 3.6.D.2 and 3.6.D.3 above are taken, initiate an orderly shutdown of the reactor and reduce reactor water temperature to less than 212°F within 24 hours.	

Amendment No. 13, 17, 87,

3.0 LIMITING CONDITIONS FOR OPERATION	4.0 SURVEILLANCE REQUIREMENTS
5. Any time irradiated fuel is in the reactor vessel and reactor water temperature is above 212°F at least one of the leakage measurement instruments associated with each sump shall be operable. If no leak rate measurement instruments associated with a sump are operable, then: a. Perform manual leak rate measurements once per 12 hours and restore a measurement instrument to operable status within 30 days. b. Otherwise, initiate an orderly shutdown of the reactor and reduce reactor water temperature to less than 212°F within 24 hours. 6. Any time irradiated fuel is in the reactor vessel and reactor water temperature is above 212°F the drywell particulate radioactivity monitoring system shall be operable. If the drywell particulate radioactivity monitoring system is not operable, then: a. Analyze grab samples of the primary containment atmosphere once per 12 hours. b. Otherwise, initiate an orderly shutdown of the reactor and reduce reactor water temperature to less than 212°F within 24 hours.	

Amendment No. 17, 87,

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 87 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 July 7, 1993, the Northern States Power Company (the licensee) requested an amendment to the Technical Specifications (TS) appended to Facility Operating License No. DPR-22 for the Monticello Nuclear Generating Plant. The proposed amendment would change coolant leakage monitoring frequency in accordance with the guidance given in Supplement 1 to Generic Letter 88-01, "NRC Position on Intergranular Stress Corrosion Cracking (IGSCC) in BWR Austenitic Stainless Steel Piping," and NUREG-1433, "Standard Technical Specifications, General Electric Plants, BWR/4."

2.0 BACKGROUND

Requirements governing reactor coolant system leakage detection were added to the Monticello plant TS in License Amendments 14 and 17, dated December 10, 1982 and April 18, 1983, respectively. License Amendment 14 was issued as part of the corrective actions and justification for returning the Monticello Nuclear Plant to power following a Confirmatory Action Letter issued by the staff on October 19, 1982. The October 19, 1982, Confirmatory Action Letter was issued regarding the proposed corrective actions for crack indications found in the welds on the Monticello Plant recirculation system. Since that time, the Monticello Plant has either replaced piping susceptible to IGSCC in the recirculation system, the residual heat removal system, and the core spray system with materials resistant to IGSCC, or protected the piping with a cladding of resistant weld metal. To further reduce susceptibility to IGSCC, a hydrogen water chemistry system was placed in operation in 1988. As a result of these modifications the potential for IGSCC has been greatly reduced.

In 1988, the Commission issued Generic Letter 88-01. This Generic Letter provided revised staff positions to minimize and control IGSCC in BWR piping systems made of austenitic stainless steel that is 4 inches or larger in nominal diameter and contains reactor coolant at a temperature above 200°F. Generic Letter 88-01 required that plant TS related to leakage detection would conform to the staff position on leak detection included in the Generic Letter.

In the licensee's July 28, 1988, response to Generic Letter 88-01, the licensee confirmed that its plant TS conformed to the NRC staff position on reactor coolant leak detection. Subsequently, the NRC issued Supplement 1 to Generic Letter 88-01 and NUREG-1433, in which the NRC provided revised guidance for monitoring reactor coolant system leakage. The revised guidance ensures means are available for detecting reactor coolant system leakage while reducing unnecessary hardship on plant operators and the potential for undesirable plant transients due to unnecessary plant shutdowns.

3.0 EVALUATION

The proposed amendment would make changes to TS 3.6.D, "Primary System Boundary, Coolant Leakage," and the corresponding surveillance requirements. Limiting Condition for Operation 3.6.D.5 specifies requirements for operability of leakage measurement instruments associated with floor and equipment drain sumps and operability of the drywell particulate radioactivity monitoring system. The limiting condition prescribes actions to be taken when those instruments are inoperable. The amendment would add a clause to make the operability requirement applicable only when irradiated fuel is in the reactor and reactor water temperature is above 212°F. With regard to leakage measurement instruments, the amendment would add a requirement that manual leak rate measurements be made once per 12 hours. The amendment would require that the instruments be restored to operable status within 30 days or else shutdown would be required. In addition, the proposed amendment would create a new section 3.6.D.6 to address operability requirements for the drywell particulate radioactivity monitoring system. The amendment would require an analysis of grab samples of the primary containment once per shift not to exceed 12 hours.

Surveillance requirement 4.6.D.1.a. for coolant leakage would be amended to require that unidentified and identified leakage rates be measured once per shift not to exceed 12 hours.

Surveillance requirement 4.6.D.2.b. would be revised to require performance of a sensor check for the primary containment sump leakage measurement system once per shift, not to exceed 12 hours.

The staff's review of the above changes is provided below.

3.1 Operability of Leakage Measurement Instruments Associated with Sumps - Operability Requirements for Drywell Particulate Radioactivity Monitoring System

The revised Limiting Conditions for Operation requirements for inoperability of a sump leak rate measurement instrument and the drywell particulate radioactivity monitoring system are acceptable based on the multiple forms of leakage detection that are still available. Determination of the coolant system leakage during periods when the sump leakage rate measurement instrument is inoperable can be accomplished by manually pumping the sump or by observation of the sump level change, using indications that are readily available to the operating staff.

These instruments have an accuracy which is suitable for detecting changes in reactor coolant system leakage consistent with specified leakage limits. The 12-hour interval for manual leak rate determination or grab sample analysis provides periodic information that is adequate to detect leakage. The 30-day completion time for restoration of the sump leakage measurement instrument or the drywell particulate radioactivity monitoring system recognizes that at least one other form of leakage detection is available.

Adding a clause making the applicability requirement applicable only when irradiated fuel is in the reactor and water temperature is above 212°F is acceptable, because the action required when the leakage measurement instruments are inoperable is to shut down the reactor and reduce reactor water to less than 212°F, and the Limiting Condition for Operation is not applicable when the reactor does not contain irradiated fuel.

3.2 Leakage Surveillance Program

The frequency of recording identified and unidentified leakage rates once per shift not to exceed 12 hours is in accordance with the guidance supplied in Supplement 1 of Generic Letter 88-01, and NUREG-1433.

3.3 Primary Containment Sump Leakage Measurement System Sensor Check

Leakage measurement system sensor checks once per shift, not to exceed 12 hours, are consistent with staff guidance in NUREG-1433, specifically under Surveillance Requirement 3.4.6.1.

All the proposed changes are in accordance with the guidance supplied in either Supplement 1 of Generic Letter 88-01, and/or NUREG-1433, and are therefore acceptable.

4.0 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.

5.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and changes surveillance requirements. The staff has determined that the amendment involves 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 amendment involves no significant hazards consideration and there has been no public comment on such finding (58 FR 41507). Accordingly, the amendment meets 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 amendment.

6.0 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, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: C. Bajwa

Date: April 15, 1994