

March 19, 1999

Mr. Roger O. Anderson, Director
Nuclear Energy Engineering
Northern States Power Company
414 Nicollet Mall
Minneapolis, MN 55401

SUBJECT: MONTICELLO NUCLEAR GENERATING PLANT - ISSUANCE OF
AMENDMENT RE: CONDENSATE STORAGE TANK LOW LEVEL HPCI/RCIC
SUCTION TRANSFER (TAC NO. MA0306)

Dear Mr. Anderson:

The Commission has issued the enclosed Amendment No. 105 to Facility Operating License No. DPR-22 for the Monticello Nuclear Generating Plant. The amendment consists of changes to the Technical Specifications in response to your application dated November 25, 1997, as supplemented September 25 and November 11, 1998, and January 28, 1999.

The amendment revises the Technical Specifications for the condensate storage tank (CST) low level suction transfer setpoint for the high pressure coolant injection (HPCI) and reactor core isolation cooling (RCIC) systems to allow removing one CST from service for maintenance.

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

Carl F. Lyon, Project Manager
Project Directorate III-1
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-263

Enclosures: 1. Amendment No. 105 to DPR-22
2. Safety Evaluation

cc w/encl: See next page

DISTRIBUTION: See attached page

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Mr. Roger O. Anderson, Director
Northern States Power Company

Monticello Nuclear Generating Plant

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DATED: March 19, 1999

AMENDMENT NO. 105 TO FACILITY OPERATING LICENSE NO. DPR-22 - MONTICELLO

Docket File (50-263)

PUBLIC

PD31-1 Reading

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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. 105
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 November 25, 1997, as supplemented September 25 and November 11, 1998, and January 28, 1999, 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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Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 105, 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, with full implementation within 30 days.

FOR THE NUCLEAR REGULATORY COMMISSION

Carl F. Lyon

Carl F. Lyon, Project Manager
Project Directorate III-1
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical
Specifications

Date of Issuance: March 19, 1999

ATTACHMENT TO LICENSE AMENDMENT NO. 105

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

5b
60d
71a

INSERT

5b
60d
71a

- AQ. Core Operating Limits Report The Core Operating Limits Report is the unit specific document that provides core operating limits for the current operating reload cycle. These cycle-specific operating limits shall be determined for each reload cycle in accordance with Specification 6.7.A.7. Plant operation within these operating limits is addressed in individual specifications.
- AR. Allowable Value - The Allowable Value is the limiting value of the sensed process variable at which the trip setpoint may be found during instrument surveillance.

**Table 3.2.8
Other Instrumentation**

Function	Trip Setting	Minimum No. of Operable or Operating Trip System (1) (2)	Total No. of Instrument Channels Per Trip System	Minimum No. of Operable or Operating Instrument Channels Per Trip System (1) (2)	Required Conditions*
A. RCIC Initiation 1. Low-Low Reactor Level	≥ 6' 6" & ≤ 6' 10" above top of active fuel	1	4	4	B
B. HPCI/RCIC Turbine Shutdown a. High Reactor Level	≤ 14' 6" above top of active fuel	1	2	2	A
C. HPCI/RCIC Turbine Suction Transfer a. Condensate Storage Tank Low Level Allowable Values	≥ 2' 3" above tank bottom (Two Tank Operation) ≥ 6' 9" above tank bottom (One Tank Operation)	1 1	2 2	2 2	C C

NOTE:

1. Upon discovery that minimum requirements for the number of operable or operating trip systems or instrument channels are not satisfied, action shall be initiated as follows:
 - a. With one required instrument channel inoperable per trip function, place the inoperable channel or trip system in the tripped condition within 12 hours, or
 - b. With more than one instrument channel per trip system inoperable, immediately satisfy the requirements by placing the appropriate channels or systems in the tripped condition, or
 - c. Place the plant under the specified required condition using normal operating procedures.
 2. A channel may be placed in an inoperable status for up to 6 hours for required surveillance without placing the trip system in the tripped condition provided that at least one other operable channel in the same trip system is monitoring that parameter.
- * Required conditions when minimum conditions for operation are not satisfied:
- A. Comply with Specification 3.5.A.
 - B. Comply with Specification 3.5.D.
 - C. Align HPCI and RCIC suction to the suppression pool.

Bases 3.2 (Continued):

	Trip Function	Deviation
Instrumentation for Safety/Relief Valve Low Low Set Logic	Reactor Coolant System Pressure for Opening/Closing	± 20 psig
	Opening- Closing Pressure	≥ 60 psi
	Discharge Pipe Pressure Inhibit	± 10 psid
	Timer Inhibit	-3 sec +10 sec
Other Instrumentation	* High Reactor Water Level	+6 inches
	* Low-Low Reactor Water Level	-3 inches

* This indication is reactor coolant temperature sensitive. The calibration is thus made for rated conditions. The level error at low pressures and temperatures is bounded by the safety analysis which reflects the weight-of-coolant above the lower tap, and not the indicated level.

A violation of this specification is assumed to occur only when a device is knowingly set outside of the limiting trip settings, or, when a sufficient number of devices have been affected by any means such that the automatic function is incapable of operating within the allowable deviation while in a reactor mode in which the specified function must be operable or when actions specified are not initiated as specified.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 105 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 November 25, 1997, as supplemented September 25 and November 11, 1998, and January 28, 1999, 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 revise the TS for the condensate storage tank (CST) low level suction transfer setpoint for the high pressure coolant injection (HPCI) and reactor core isolation cooling (RCIC) systems to allow removing one CST from service for maintenance.

The November 25, 1997, letter and September 25 and November 11, 1998, supplements were referenced in the original *Federal Register* notice. The January 28, 1999, supplement provided an updated TS page following the incorporation of Amendment 103, issued December 23, 1998. This information was within the scope of the original *Federal Register* notice and did not change the staff's initial proposed no significant hazards considerations determination.

2.0 EVALUATION

2.1 Background

HPCI and RCIC system pump suctions are normally aligned to the two parallel-connected CSTs. In the event these systems are initiated for any reason, demineralized water will be injected into the reactor vessel. The CSTs are not safety related, and there are no TS requirements related to operability or use of the CSTs. The safety grade source of water for HPCI and RCIC is the suppression pool. Safety related automatic circuitry is provided to transfer HPCI and RCIC pump suction from the CSTs to the suppression pool on sensing low level in the CSTs. Level switches LS 23-74 and LS 23-75 are used in a one-out-of-two logic scheme to open redundant HPCI and RCIC suction valves from the suppression pool. CST suction valves for HPCI and RCIC automatically close when their respective suppression pool suction valves are fully open.

The TS currently require both LS 23-74 and LS 23-75 to be operable to provide redundancy in the HPCI/RCIC suction transfer logic. In the event one or both switches are inoperable, continued plant operation is permitted for up to 30 days provided HPCI and RCIC pump

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suctions are aligned to the suppression pool. If both switches are not restored to operability within 30 days, the plant must be shutdown.

The CSTs need periodic maintenance which often takes in excess of the 30 days allowed by the current TS. Under the current TS, a level switch is considered to be inoperable if the CST is empty for maintenance. Routine CST maintenance could require a plant shutdown because of an inoperable level instrument, when the reason the instrument is inoperable is that there is no water level in the CST for the instrument to sense. The proposed change would eliminate the problem by allowing both instruments to be aligned to the operable CST without requiring entry into the 30-day limiting condition for operation. The suction transfer settings would be revised to reflect the use of an allowable value concept and are consistent with either one or two CST operation.

2.2 Evaluation of Proposed Changes

The licensee proposes to add a definition of "Allowable Value" to TS Section 1.0, "Definitions." The definition is consistent with the General Electric instrument setpoint methodology used at Monticello and is acceptable to the staff.

The licensee proposes to revise the trip setting for Function C, "HPCI/RCIC Turbine Suction Transfer," in TS Table 3.2.8, "Other Instrumentation," to read:

- | | | |
|----|--------------------|----------------------|
| a. | Condensate Storage | ≥2'3" above |
| | Tank Low Level | tank bottom |
| | Allowable Values | (Two Tank Operation) |
| | | ≥6'9" above |
| | | tank bottom |
| | | (One Tank Operation) |

The revised suction transfer settings reflect the use of an allowable value concept and are consistent with either one or two CST operation. The licensee also proposes to revise TS Table 3.2.8, Required Condition C, to retain the requirement to, "Align HPCI and RCIC suction to the suppression pool," and delete the requirement to, "Restore channels to operable status within 30 days or place the plant in Required Condition A for HPCI, or B for RCIC." The requirement to enter a 30-day limiting condition for operation is not required, since HPCI and RCIC suction will be aligned to the suppression pool when one of the CST level instruments is inoperable. The action is equivalent to carrying out the safety related function of the level switches. The proposed changes are acceptable to the staff.

The licensee proposes to delete the allowable low condensate storage level setpoint deviation from TS Bases 3.2, page 71a. The deviation is no longer required because the setpoint is based on an allowable value, which accounts for instrument uncertainty, in proposed TS Table 3.2.8. The proposed change is acceptable to the staff.

3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Minnesota State official was notified of the proposed issuance of the amendment. The State official had no comments.

4.0 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. 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 (63 FR 69344). 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.

5.0 CONCLUSION

The Commission 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: A. Ulses

Date: March 19, 1999