

May 10, 1989

Docket No. 50-263

DISTRIBUTION

Docket File	TMeek(4)
PD31 Plant Gray	Wanda Jones
NRC & Local PDRs	EButcher
MVirgilio	ACRS (10)
PShuttleworth	GPA/PA
JStefano	ARM/LFMB
OGC	EJordan
DHagan	BGrimes

Mr. D. M. Musolf, Manager
Nuclear Support Services
Northern States Power Company
414 Nicollet Mall
Minneapolis, Minnesota 55401

Dear Mr. Musolf:

SUBJECT: AMENDMENT NO. 64 TO FACILITY OPERATING LICENSE NO. DPR-22:
(TAC NO. 55398)

The Commission has issued the enclosed Amendment No. 64 to Facility Operating License No. DPR-22 for the Monticello Nuclear Generating Plant. This amendment consists of changes to the Technical Specifications (TSs) in response to your application dated May 1, 1985 supplemented by letters dated November 22, 1985 and November 3, 1986.

The amendment revises the Technical Specifications to: (1) restrict purge and vent valve operations above cold shutdown to the 2-inch bypass flow path except for inerting and de-inerting containment; (2) require containment purge and vent valve seal maintenance at five year intervals; (3) specify the maximum operating time for containment purge and vent valve operation to 15 seconds; (4) reduce the number of outboard valves for "drywell purge inlet" to one, and add a new table entry "suppression chamber purge inlet" with one outboard valve; (5) change the normal position specified for all drywell and suppression chamber vent and purge valves to "closed"; and (6) make other editorial type changes related to these Technical Specification changes.

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

John J. Stefano, Project Manager
Project Directorate III-1
Division of Reactor Projects - III, IV, V
& Special Projects

Enclosures:

- Amendment No. 64 to License No. DPR-22
- Safety Evaluation

c/Pert

cc w/enclosures:

See next page
LA/PD31: DRSP
PShuttleworth
5/5/89

JW
PM/PD31: DRSP
JStefano
5/8/89

SPEB: NRR
for JCraig
5/9/89

RRPB: NRR
LCunningham
5/1/89

JL
(A)O/PD31: DRSP
LYandell
5/10/89

OGC
OGC
5/9/89
DF 01
111

8905180375 890510
PDR ADOCK 05000263
PDC



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555
May 10, 1989

Docket No. 50-263

Mr. D. M. Musolf, Manager
Nuclear Support Services
Northern States Power Company
414 Nicollet Mall
Minneapolis, Minnesota 55401

Dear Mr. Musolf:

SUBJECT: AMENDMENT NO. 64 TO FACILITY OPERATING LICENSE NO. DPR-22:
(TAC NO. 55398)

The Commission has issued the enclosed Amendment No. 64 to Facility Operating License No. DPR-22 for the Monticello Nuclear Generating Plant. This amendment consists of changes to the Technical Specifications (TSs) in response to your application dated May 1, 1985 supplemented by letters dated November 22, 1985 and November 3, 1986.

The amendment revises the Technical Specifications to: (1) restrict purge and vent valve operations above cold shutdown to the 2-inch bypass flow path except for inerting and de-inerting containment; (2) require containment purge and vent valve seal maintenance at five year intervals; (3) specify the maximum operating time for containment purge and vent valve operation to 15 seconds; (4) reduce the number of outboard valves for "drywell purge inlet" to one, and add a new table entry "suppression chamber purge inlet" with one outboard valve; (5) change the normal position specified for all drywell and suppression chamber vent and purge valves to "closed"; and (6) make other editorial type changes related to these Technical Specification changes.

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,

A large, stylized handwritten signature in black ink, appearing to read "John J. Stefano".

John J. Stefano, Project Manager
Project Directorate III-1
Division of Reactor Projects - III, IV, V
& Special Projects

Enclosures:

1. Amendment No. 64 to License No. DPR-22
2. Safety Evaluation

cc w/enclosures:
See next page

Mr. D. M. Musolf
Northern States Power Company

Monticello Nuclear Generating Plant

cc:
Gerald Charnoff, Esquire
Shaw, Pittman, Potts and
Trowbridge
2300 N Street, NW
Washington, D. C. 20037

U. S. Nuclear Regulatory Commission
Resident Inspector's Office
Box 1200
Monticello, Minnesota 55362

Plant Manager
Monticello Nuclear Generating Plant
Northern States Power Company
Monticello, Minnesota 55362

Russell J. Hatling
Minnesota Environmental Control
Citizens Association (MECCA)
Energy Task Force
144 Melbourne Avenue, S. E.
Minneapolis, Minnesota 55113

Dr. John W. Ferman
Minnesota Pollution Control Agency
520 Lafayette Road
St. Paul, Minnesota 55155-3898

Regional Administrator, Region III
U. S. Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, Illinois 60137

Commissioner of Health
Minnesota Department of Health
717 Delaware Street, S. E.
Minneapolis, Minnesota 55440

O. J. Arlien, Auditor
Wright County Board of
Commissioners
10 NW Second Street
Buffalo, Minnesota 55313



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

NORTHERN STATES POWER COMPANY
DOCKET NO. 50-263
MONTICELLO NUCLEAR GENERATING PLANT
AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 64
License No. DPR-22

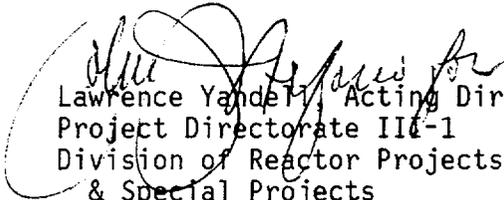
1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Northern States Power Company (the licensee) dated May 1, 1985, supplemented by letters dated November 22, 1985 and November 3, 1986, complies with the standards and requirements of the Atomic 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.64 , 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


Lawrence Yandell, Acting Director
Project Directorate III-1
Division of Reactor Projects - III, IV, V
& Special Projects
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: May 10, 1989

ATTACHMENT TO LICENSE AMENDMENT NO. 64

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 marginal lines indicating the area of change.

REMOVE

INSERT

165

165

166

166

171

171

172

172

3.0 LIMITING CONDITIONS FOR OPERATION

- e. One position alarm circuit can be inoperable providing that the redundant position alarm circuit is operable. Both position alarm circuits may be inoperable for a period not to exceed seven days provided that all vacuum breakers are operable.

5. Containment Atmosphere Control

- a. The primary containment atmosphere shall be reduced to less than 4% oxygen by volume with nitrogen gas whenever the reactor is in the run mode, except as specified in 3.7.A.5.b.
- b. Within the 24-hour period subsequent to placing the reactor in the run mode following shutdown, the containment atmosphere oxygen concentration shall be reduced to less than 4% by volume, and maintained in this condition. Deinerting may commence 24 hours prior to leaving the run mode for a reactor shutdown.

4.0 SURVEILLANCE REQUIREMENTS

- b. When the position of any drywell-suppression chamber vacuum breaker valve is indicated to be not fully closed at a time when such closure is required, the drywell to suppression chamber differential pressure decay shall be demonstrated to be less than that shown on Figure 3.7.1 immediately and following any evidence of subsequent operation of the inoperable valve until the inoperable valve is restored to a normal condition.
- c. When both position alarm circuits are made or found to be inoperable, the control panel indicator light status shall be recorded daily to detect changes in the vacuum breaker position.

5. Containment Atmosphere Control

Whenever inerting is required, the primary containment oxygen concentration shall be measured and recorded on a weekly basis.

3.7/4.7

8611140142 861103 /
PDR ADOCK 05000263
P PDR

3.0 LIMITING CONDITIONS FOR OPERATION

c. Except for inerting and deinerting operations permitted in (b) above, all containment purging and venting above cold shutdown shall be via a 2-inch purge and vent valve bypass line and the Standby Gas Treatment System. Inerting and deinerting operations may be via the 18-inch purge and vent valves (equipped with 40-degree limit stops) aligned to the Reactor Building plenum and vent.

6. If the specifications of 3.7.A cannot be met, the reactor shall be placed in a cold shutdown condition within 24 hours.

B. Standby Gas Treatment System

1. Two separate and independent standby gas treatment system circuits shall be operable at all times when secondary containment integrity is required, except as specified in sections 3.7.B.1.(a) and (b).

a. After one of the standby gas treatment system circuits is made or found to be inoperable for any reason, reactor operation and fuel handling is permissible only during the succeeding seven days, provided that all active components in the other standby gas treatment system shall be demonstrated to be operable within 2 hours and daily thereafter. Within 36 hours following the 7 days, the reactor shall be placed in a condition for which the standby gas treatment system is not required in accordance with Specification 3.7.C.2.(a) through (d).

3.7/4.7

4.0 SURVEILLANCE REQUIREMENTS

B. Standby Gas Treatment System

1. At least once per month, initiate from the control room 3500 cfm ($\pm 10\%$) flow through both circuits of the standby gas treatment system. In addition:

a. Within 2 hours from the time that one standby gas treatment system circuit is made or found to be inoperable for any reason and daily thereafter for the next succeeding seven days, initiate from the control room 3500 cfm ($\pm 10\%$) flow through the operable circuit of the standby gas treatment system.

3.0 LIMITING CONDITIONS FOR OPERATION

2. In the event any isolation valve specified in Table 3.7.1 becomes inoperable, reactor operation in the run mode may continue provided at least one valve in each line having an inoperable valve is closed.
3. If Specification 3.7.D.1 and 3.7.D.2 cannot be met, initiate normal orderly shutdown and have reactor in the cold shutdown condition within 24 hours.

4.0 SURVEILLANCE REQUIREMENTS

- c. At least once per quarter - Continued
 - (2) With the reactor power less than 75% of rated, trip main steam isolation valves (one at a time) and verify closure time.
- d. At least once per week the main steam-line power-operated isolation valves shall be exercised by partial closure and subsequent reopening.
2. Whenever an isolation valve listed in Table 3.7.1 is inoperable, the position of at least one fully closed valve in each line having an inoperable valve shall be recorded daily.
3. The isolation valves listed in Table 3.7.1 shall be demonstrated Operable prior to returning the valve to service after maintenance, repair, or replacement work is performed on the valve or its associated actuator, control, or power circuit by performance of a cycling test and verification of operating time.
4. The seat seals of the drywell and suppression chamber 18-inch purge and vent valves shall be replaced at least once every five years.

TABLE 3.7.1

PRIMARY CONTAINMENT ISOLATION

Isolation Group	Valve Identification	Number of Valves		Maximum Operating Time (Sec)	Normal Position
		Inboard	Outboard		
1	Main Steam Line Isolation	4	4	5*	Open
1	Main Steam Line Drain	1	1	60	Closed
1	Recirculation Loop Sample Line	1	1	60	Open
2	Drywell Floor Drain		2	60	Open
2	Drywell Equipment Drain		2	60	Open
2	Drywell Vent		2	15**	Closed
2	Drywell Vent Bypass		1	15**	Closed
2	Drywell Purge Inlet		1	15**	Closed
2	Drywell and Suppression Chamber Air Makeup		1	15**	Closed
2	Suppression Chamber to Drywell N ₂ Recirculation		1	60	Closed
2	Suppression Chamber Vent		2	15**	Closed
2	Suppression Chamber Vent Bypass		1	15**	Closed
2	Suppression Chamber Purge Inlet		1	15**	Closed
2	Shutdown Cooling System	1	1	120	Closed

* Minimum closure time shall be ≥ 3 seconds

** Effective following startup for Cycle 13. Maximum operating time shall be 20 seconds prior to beginning of Cycle 13.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 64 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 3, 1986, the Northern States Power Company, the licensee for Monticello Nuclear Generating Station proposed changes to the Technical Specifications (TS) 3.7.A.5 for containment purge and vent valve operation. Additional information was provided in letters dated May 1 and November 22, 1985. Specifically, the licensee proposed to:

- (a) Limit the use of purge and vent valve flow paths over 2-inches to inerting and de-inerting operations only,
- (b) Require replacement of valve seals at five year intervals,
- (c) Revise the maximum operating time specified for containment purge and vent valves to 15 seconds on Table 3.7.1,
- (d) Reduce the number of outboard valves listed on Table 3.7.1 for "Drywell Purge Inlet" to one and add a new table entry, "Suppression Chamber Purge Inlet" with one outboard valve.
- (e) Change the normal position to closed position on Table 3.7.1 for all drywell and suppression chamber vent and purge valves, and
- (f) Revise the heading for Section 3/4.7.A.5 to read "Containment Atmosphere Control" and correct a typographical error from 3.7.C.1(a) to 3.7.C.2(a) on TS page 166.

The licensee indicated that changes (a) through (c) are to comply with the generic concern related to demonstration of containment purge and vent valve operability (Multi-Plant Action B-24) for Monticello Nuclear Generating Station. Changes (d) through (f) are administrative in nature for clarification and corrections.

2.0 DISCUSSION AND EVALUATION

We have evaluated each of the above listed changes proposed to the plant TS, and our determinations and findings relative to each change are as follows:

8905180387 890510
FDR ADOCK 05000263
P FDC

- (a) Limitation on purge and vent operations above cold shutdown - The licensee has proposed to revise TS Section 3.7.A.5 to restrict purge and vent valve operations above cold shutdown to the 2-inch bypass flow path except for inerting and de-inerting containment. The licensee has also proposed to add 40-degree limit stops on 18" purge and vent valves to ensure their closure against full accident differential pressure. These changes are proposed to comply with the staff's evaluation in letters dated March 6, 1984 and February 15, 1985 on generic concern related to the demonstration of containment purge and vent valve operability (MPA B-24) for the Monticello Generating plant and, therefore, acceptable.
- (b) Valve Seal Replacement - The licensee has proposed to add to the surveillance requirements in Section 3.7.d for replacement of the seals of the drywell and suppression chamber 18-inch purge and vent valves at least every five years. This is in response to staff position requiring accelerated local leakage testing of containment purge and vent valves due to the poor performance in the industry of large butterfly valves. The licensee, in a letter dated November 22, 1985, has indicated that the T-ring seal valve design used at Monticello is relatively free of valve leakage problems experienced at other facilities and that the existing preventive maintenance program with periodic seal replacement provides assurance that the valve will seal tightly and provided data from 1971 to 1985 to support it. Based on the above review, the staff concludes that the proposed seal replacement at every five year interval for the 18-inch purge and vent valve is acceptable.
- (c) Containment Purge and Vent Valve Operating Time - The licensee has proposed to revise the maximum operating time for containment purge and vent valve operation from 60 seconds to 15 seconds following the next refueling outage on Table 3.7.1. Prior to this time, an allowable 20 seconds will be maintained. This is in response to the staff evaluation dated April 13, 1984 on the consequences of a LOCA at Monticello while purging at power. In the above evaluation, the staff has concluded that 15 seconds valve closure would assure that the purge valves would be closed before the onset of fuel failure following a LOCA. Therefore, the above change for 15 seconds closure time is acceptable.
- (d) Correct Valve Designation - The licensee has proposed to reduce one drywell purge inlet valve and add one suppression chamber purge inlet valve on Table 3.7.1 per existing plant design (USAR Figure 5.2-9). This is an administrative change and, therefore, acceptable.
- (e) Clarify Valve Position - The licensee has proposed to revise the Table 3.7.1 to show the normal position of all purge and vent valves as closed. The licensee indicated that as an interim measure in mid-1970's (Reference Amendment 18 dated April 14, 1976), a drywell to suppression chamber differential was maintained to reduce vent line submergence requiring some of these valves to be open to permit the necessary nitrogen make-up to the drywell and suction from the suppression chamber. This differential pressure is no longer required because of containment modifications (Mark I containment long term program). The staff considers this an administrative change and, therefore, acceptable.

- (f) Revise the Heading for Section 3/4.7.A.5 - The licensee proposed to revise the heading for Section 3/4.7.A.5 from oxygen concentration to containment atmosphere control to more clearly identify the purpose of that section as it deals with several aspects of containment atmosphere control, not simply control of oxygen. The licensee also proposed to correct a typographical error from 3.7.C.1(a) to 3.7.C.2(a) on TS page 166. The staff considers these are administrative changes and therefore, acceptable.

Based on the above evaluation, we conclude that the proposed changes to the Monticello Technical Specification Section 3.7.A.5 for limitation on purge and vent valve operation above cold shutdown, valve seal replacement, and valve operating time related to demonstration of containment purge valve operability relate to Multi-Plant Action B-24; and the administrative changes proposed to clarify the valve designation, position, and section heading are acceptable.

3.0 ENVIRONMENTAL CONSIDERATION

This amendment involves a change in the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 or a change to the 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 published a proposed finding that this amendment involves no significant hazards consideration and there has been no public comment on such finding. Accordingly, this 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 this amendment.

4.0 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 this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: R. Goel

Dated: May 10, 1989