

October 19, 1989

Docket No. 50-263

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

Dear Mr. Parker:

SUBJECT: AMENDMENT NO. 71 TO FACILITY OPERATING LICENSE NO. DPR-22
 (TAC NO. 74213)

The Commission has issued the enclosed Amendment No. 71 to Facility Operating License No. DPR-22 for the Monticello Nuclear Generating Plant. This amendment consists of changes to the Technical Specifications (TS) in response to your application dated August 2, 1989.

The amendment would delete Table 3.7.1, "Primary Containment Isolation," from the Technical Specifications to permit the Updated Safety Analysis Report (USAR) to serve as the primary reference for identification of primary containment isolation valves and their associated closure time limits, normal position, and group assignment.

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,

William O. Long, Project Manager
 Project Directorate III-1
 Division of Reactor Projects - III,
 IV, V & Special Projects
 Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 71 to License No. DPR-22
2. Safety Evaluation

cc w/enclosures:
 See next page

LA/PD31:DRSP
 PShuttleworth
 9/26/89

PM/PD31:DRSP
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 9/15/89

(A)D/PD31:DRSP
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 10/03/89

OGC
 10/15/89
 With change
 discussed

OTSB
 JCalvo
 10/3/89

Handwritten notes:
 5/4/90
 DF01 Add Bill Long
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 Ltr Encl
 CP1

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 PDR ADOCK 05000263
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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

October 19, 1989

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

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Sincerely,

A handwritten signature in cursive script that reads "William O. Long".

William O. Long, Project Manager
Project Directorate III-1
Division of Reactor Projects - III,
IV, V & Special Projects
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 71 to License No. DPR-22
2. Safety Evaluation

cc w/enclosures:
See next page

Mr. T. M. Parker, Manager
Northern States Power Company

Monticello Nuclear Generating Plant

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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. 71
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 August 2, 1989, 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. 71, 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



John O. Thoma, 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: October 19, 1989

ATTACHMENT TO LICENSE AMENDMENT NO. 71

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

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3.0 LIMITING CONDITIONS FOR OPERATION

reactor core, operations with a potential for reducing the shutdown margin below that specified in specification 3.3.A, and handling of irradiated fuel or the fuel cask in the secondary containment are to be immediately suspended if secondary containment integrity is not maintained.

D. Primary Containment Automatic Isolation Valves

1. During reactor power operating conditions, all Primary Containment automatic isolation valves and all primary system instrument line flow check valves shall be operable except as specified in 3.7.D.2.

3.7/4.7

4.0 SURVEILLANCE REQUIREMENTS

D. Primary Containment Automatic Isolation Valves

1. The primary containment automatic isolation valve surveillance shall be performed as follows:
 - a. At least once per operating cycle the operable isolation valves that are power operated and automatically initiated shall be tested for simulated automatic initiation and closure times.
 - b. At least once per operating cycle the primary system instrument line flow check valves shall be tested for proper operation.
 - c. At least once per quarter
 - (1) All normally open power-operated isolation valves (except for the main steam line power-operated isolation valves) shall be fully closed and reopened.

3.0 LIMITING CONDITIONS FOR OPERATION

2. In the event any Primary Containment automatic isolation valve 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.

3.7/4.7

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 a Primary Containment automatic isolation valve is inoperable, the position of at least one fully closed valve in each line having an inoperable valve shall be recorded daily.
3. A Primary Containment automatic isolation valve 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.

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Amendment No. 6A,71

3.0 LIMITING GAS CONTROL SYSTEM

E. Combustible Gas Control System

1. Two separate and independent Combustible Gas Control System trains shall be operable at all times whenever the reactor is in the run mode except as specified in Section 3.7.E.2 and 3.7.E.3 below.
2. After one of the Combustible Gas Control System train(s) is made or found to be inoperable for any reason, restore the inoperable train to operable status within 30 days or submit a special report to the Commission within the next 30 days which includes the following information:
 - 1) Identification of the inoperable equipment or subsystems and the reason for inoperability.
 - 2) Action(s) to be taken to restore equipment to operable status, and
 - 3) Summary description of action(s) taken to prevent recurrence.
3. With both of the Combustible Gas Control System trains inoperable for any reason, restore at least one train to operable status within 30 days or initiate an orderly shutdown of the reactor and be in the cold shutdown condition within 24 hours.

4.0 SURVEILLANCE REQUIREMENTS

E. Combustible Gas Control System

1. At least once an operating cycle, perform the following:
 - a. Calibrate the following instrumentation and control circuits
 1. Inlet flow indicator
 2. Total Flow indicator
 3. Return gas high temperature
 4. High reaction chamber temperature
 - b. Perform a resistance to ground test on all heater electrical circuits
 - c. Verify through a visual examination that there is no evidence of abnormal conditions.
2. At least once every six months verify the recombiner reaction chamber operability by verifying that the outlet temperature exceeds 600°F within one hour and that heater current is within 5% of rated current when the power setting is increased to maximum.
3. The leak tightness of the recombiners and associated piping shall be verified during each shutdown when a Type A overall integrated containment leakage test is required by either:
 - a. Venting the recombiner trains to the containment during the Type A test, or
 - b. Performing a separate leakage test of both recombiner trains and adding the results to the Type A test leakage.

Bases Continued:

While only a small amount of particulates are released from the primary containment as a result of the loss of coolant accident, high-efficiency particulate filters before and after the charcoal filters are specified to minimize potential particulate release to the environment and to prevent clogging of the charcoal adsorbers. The charcoal adsorbers are installed to reduce the potential release of radioiodine to the environment. The in-place test results should indicate a system leak tightness of less than 1% bypass leakage for the charcoal adsorbers using halogenated hydrocarbon and a HEPA filter efficiency of at least 99% removal of DOP particulates. Laboratory carbon sample test results indicate a radioactive methyl iodide removal efficiency for expected accident conditions. Operation of the standby gas treatment circuits significantly different from the design flow will change the removal efficiency of the HEPA filters and charcoal adsorbers. If the performance requirements are met as specified, the calculated doses would be less than the guidelines stated in 10 CFR 100 for the accidents analyzed.

D. Primary Containment Isolation Valves

Double isolation valves are provided on lines penetrating the primary containment. Closure of one of the valves in each line would be sufficient to maintain the integrity of the Primary Containment. Automatic initiation is required to minimize the potential leakage paths from the containment in the event of a loss-of-coolant accident. Details of the Primary Containment isolation valves are discussed in Section 5.2 of the USAR. A listing of all Primary Containment automatic isolation valves including maximum operating time is given in USAR Table 5.2-3b.

E. Combustible Gas Control System

The function of the Combustible Gas Control System (CGCS) is to maintain oxygen concentrations in the post-accident containment atmosphere below combustible concentrations. Oxygen may be generated in the hours following a loss of coolant accident from radiolysis of reactor coolant.

The Technical Specifications limit oxygen concentrations during operation to less than four percent by volume during operation. The maintenance of an inert atmosphere during operation precludes the build-up of a combustible mixture due to a fuel metal-water reaction. The other potential mechanism for generation of combustible mixtures is radiolysis of coolant which has been found to be small.

A special report is required to be submitted to the Commission to outline CGCS equipment failures and corrective actions to be taken if inoperability of one train exceeds thirty days. In addition, if both trains are inoperable for more than 30 days, the plant is required to shutdown until repairs can be made.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 71 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 August 2, 1989, 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 amendment would delete Table 3.7.1, "Primary Containment Isolation," from the Technical Specifications to permit the Updated Safety Analysis Report (USAR) to serve as the primary reference for identification of primary containment isolation valves and their associated closure time limits, normal position and group assignment.

A discussion of the proposed changes and the NRC staff's evaluation and findings relative to each are addressed in Section 2 of this Safety Evaluation Report.

2.0 DISCUSSION AND EVALUATION

The Commission's defense-in-depth policy for public safety requires that containment integrity be available in the event of an accident. Should an accident involving the loss of integrity of the fuel cladding and reactor coolant system, the primary containment would be the final line of defense serving to limit the release of radioactive material. Since operability of open isolation valves is necessary for containment integrity, the staff requires that the facility Technical Specifications contain appropriate limiting conditions for operation (LCOs) and surveillance requirements (SRs) for containment isolation valves.

The Monticello Technical Specifications presently contain such LCO's and SRs. Also, the valves to which these requirements apply are individually identified in a "Primary Containment Isolation" table. Under the terms of current regulations, any time the facility is to be modified in such a way as to involve the Primary Containment Isolation table, (i.e. addition of a new system that requires isolation valves, change of name of a valve's nomenclature, deletion of a deactivated system, or change of valve closure rate to conform to a reanalysis) the table must be amended via the 10 CFR 50.90 process even though the actual facility change may have been previously approved by the Commission, involves no unresolved safety issue, and is clearly within the intended scope of changes permissible via the 10 CFR 50.59 process wherein prior NRC approval is not required. The preparation, review, and issuance of such amendments presents an administrative burden to the licensee and staff and has little safety significance.

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The Commission's Interim Policy Statement on Technical Specifications improvements recognized the advantages of simplified and improved TS and endorsed the recommendations of the nuclear industry and NRC staff for a program to develop improvements in facility TS. The proposed Monticello change has been implemented in the TS for recently issued facilities and is consistent with guidance provided by Generic Letter 84-13 regarding removal of snubber lists.

The staff finds that the proposed change will retain the LCOs and SRs in the TS to ensure containment integrity, and also implement an acceptable line-item improvement of the Technical Specifications Improvement Program. The staff, therefore, concludes that the proposed amendment is 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 changes 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

We have 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, and (2) such activities will be conducted in compliance with the Commission's regulations, (3) 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.

Principal Contributor: W. Long

Dated: October 19, 1989