

Regulatory Docket File

NSP

NORTHERN STATES POWER COMPANY

MINNEAPOLIS, MINNESOTA 55401

October 26, 1973

Mr. J F O'Leary, Director
Directorate of Licensing
Office of Regulation
U S Atomic Energy Commission
Washington, D C 20545



Dear Mr. O'Leary:

MONTICELLO NUCLEAR GENERATING PLANT
Docket No. 50-263 License No. DPR-22

Change Request Dated October 26, 1973

Attached are three signed originals and 37 conformed copies of a request for a change of Technical Specifications, Appendix A, of the Provisional Operating License DPR-22, for the Monticello Nuclear Generating Plant. This change request has been reviewed by the Monticello Operations Committee and the Safety Audit Committee.

On August 20, 1971, we submitted a document entitled "Change Request No. 3" which included a compilation of errors and inadequacies of the initial printing of the Technical Specifications. As pages have since been revised for other reasons, the changes from Change Request No. 3 have been incorporated into the revisions. The more significant changes remaining in Change Request No. 3, which warrant present consideration, are compiled in the attached change request. The remaining portions of Change Request No. 3 will be incorporated into later requested changes as in the past. In this way Change Request No. 3 will in effect be deleted.

On September 22, 1973, Supplement No. 1 to Change Request No. 3 was submitted at the AEC request to include control rod drop accident considerations and other topics. We understand that this supplement is presently under review and should not be considered deleted.

Yours very truly,

L O Mayer, PE
Director of Nuclear Support Services

LOM/MHV/br

cc: J G Keppler
G Charnoff
Minnesota Pollution Control Agency



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EXHIBIT A

MONTICELLO NUCLEAR GENERATING PLANT
DOCKET NO. 50-263

CHANGE REQUEST DATED OCTOBER 26, 1973

PROPOSED CHANGES TO THE TECHNICAL SPECIFICATIONS
APPENDIX A OF PROVISIONAL OPERATING
LICENSE NO. DPR-22

Pursuant to 10CFR50.59, the holders of the above-mentioned license hereby propose the following changes to Appendix A, Technical Specifications.

1. PROPOSED CHANGE

On page 7, TS 2.1.B, change " less than 25% of design " to read " less than 5% of design "

On page 10, Figure 2.1.1, extend the two curves linearly from the present termination at 25% flow to 5% flow at 18% thermal power (300 MW).

On page 15, Bases: 2.1, change the first two sentences of the last paragraph to read "The range in pressure and flow used for Specification 2.1.A was 600 psig to 1250 psig and 5% to 100% flow respectively. Specification 2.1.B requires a restriction on power level when operating below 600 psig or 5% flow."

REASON FOR CHANGE

The basis given for fuel cladding integrity safety limits applies to the lower core flow limit of 5% but with less margin than the current lower limit of 25% flow. Following the recirculation pump trip test at Monticello, the operating point was found to be close to the 25% flow limit line. These changes will decrease the chance of a "technical" violation of the Specification and will make the safety limit curve consistent with curves presently in use at other facilities.

2. PROPOSED CHANGE

On page 30, Table 3.1.1, opposite Item 4.c, add " $\leq 3/125$ of full scale" under the column of Limiting Trip Settings.

REASON FOR CHANGE

This was an omission in previous submittals.

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3. PROPOSED CHANGE

On page 51, Table 3.2.1, change the Item 4 entry to read as follows:

Function	Trip Settings	Total No of Inst Ch per Trip System	Min No of Operable or Operating Inst Ch per Trip System (1,2)	Required Conditions
4. <u>HPCI Steam Lines</u>				
a. HPCI High Steam Flow	$\leq 150,000$ lb/hr with ≤ 60 second time delay	2(4)	2	F
b. HPCI High Steam Flow	$\leq 300,000$ lb/hr	2(4)	2	F
c. HPCI Steam Line Area High Temp	$\leq 200^{\circ}\text{F}$	16(4)	16	F

REASON FOR CHANGE

On HPCI initiation, initial steam flow surges cause instrumentation indications in excess of the current trip setting of 150,000 lb/hr. Testing of this system has shown that normal steam flow indications are reached within 60 seconds after initially exceeding the 150,000 lb/hr trip setting. The trip setting of 300,000 lb/hr will provide steam line break protection during the time delay period on the 150,000 lb/hr trip. Wording in the current Technical Specifications is actually inconsistent with the trip system agreed upon with AEC-DL and installed in the plant. This change corrects the wording to be consistent with the existing trip system.

4. PROPOSED CHANGE

On page 70, Table 3.2.5, opposite entry "Instrumentation That Initiates Rod Block - Table 3.2.3" add "APRM Downscale" and "RBM Downscale" under the Trip Function column and add "- 2/125 of Scale" for each new entry under the Deviation column.

REASON FOR CHANGE

AEC Change No. 5 to the Technical Specifications included a change in the APRM and RBM downscale trip settings. The bases (page 70) lack

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an allowable deviation for the APRM and RBM downscale trip settings. Addition of these allowable deviations in the bases are desirable to avoid inadvertent scrams during startup or shutdown due to the current need to set the actual trips at 5%, to assure that the 3% limit is always maintained, and thereby creating a narrow interlock overlap between IRM's and APRM's.

5. PROPOSED CHANGE

On page 92, Figure 3.4.1, continue the lower portion of the curve to terminate at 10.8% at 2895 gallons. Remove the limit of 11.4% at ≥ 2700 gallons.

REASON FOR CHANGE

In one of the early draft versions of the Technical Specifications, the bottom portion of the curve was removed to assure that the required amount of boron would be injected within 100 minutes at a minimum flow of 27 gpm. Subsequently, the requirements were changed. The present Specification and bases require a minimum flow of 24 gpm and a pumping time not to exceed 125 minutes. Restoration of the lower portion of the curve is consistent with the present bases and will allow lower concentrations, thereby reducing minimum temperature requirements and reducing the possibility of crystallization.

6. PROPOSED CHANGE

On page 92, Figure 3.4.1, add the following parenthetical statement to the ordinate label: (as w/o $\text{Na}_2\text{B}_{10}\text{O}_{16} \cdot 10 \text{H}_2\text{O}$).

On page 93, Figure 3.4.2, add the following parenthetical statement to the abscissa label: (as w/o $\text{Na}_2\text{B}_{10}\text{O}_{16} \cdot 10 \text{H}_2\text{O}$).

REASON FOR CHANGE

The proper chemical form of sodium pentaborate for the standby liquid control system was not precisely identified in the Technical Specifications. Addition of the formula for the decahydrate form to Figure 3.4.1 and 3.4.2 is appropriate for clarification.

7. PROPOSED CHANGE

On page 134, Basis 4.6.D, Coolant Leakage, delete the third paragraph and substitute the following paragraph:

"An annual report will be prepared and submitted to the AEC summarizing the primary coolant to drywell leakage measure-

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ments. Other techniques for detecting leaks and the applicability of these techniques to the Monticello Plant will be the subject of continued study."

REASON FOR CHANGE

This basis and the original Technical Specification required a one-time report after 18 months of plant operation which was to include an evaluation of the performance of the reactor coolant leakage detection system. This reporting requirement was fulfilled by a letter from L O Mayer (NSP) to A Giambusso (AEC) dated December 28, 1972. This report described a system for improvement of the speed of leak detection which was undergoing technical evaluation. Equipment for this system is on order and will be installed at the first outage of sufficient duration to permit its installation.

AEC Change No. 6 to the Monticello Technical Specifications dated April 3, 1973 included certain modifications to the reporting requirements under TS 6.7.C, Special Reports. One of these modifications was to require an annual report on primary coolant leakage to the drywell. This proposed change is to make the basis consistent with the new reporting requirement.

8. PROPOSED CHANGE

On page 150, TS 4.7.C.1.a-c, delete paragraph a; delete paragraph b; reletter paragraph c as paragraph a and insert it in place of paragraph a; and in new paragraph a, change " rate of 4,000 scfm " to read " rate of $\leq 4,000$ scfm " Add a sentence at the end of new paragraph a to read, "This surveillance testing should be reported in the semiannual operating reports."

REASON FOR CHANGE

The preoperational tests required by existing paragraph a have been conducted. The additional tests required by existing paragraph b during the first operating cycle have been performed and reported as required in TS 6.7.C.2 in a letter from L O Mayer (NSP) to J F O'Leary (AEC) dated July 23, 1973. The addition of the " \leq " sign ahead of 4,000 scfm allows more flexibility in operation and testing but still requires demonstration of the specified integrity.

9. PROPOSED CHANGE

On page 164, Basis 4.7, second paragraph, delete last two sentences, "In addition, to the AEC." Substitute the following sentence:

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"A summary report of the results of main steam line isolation valve leakage tests and closure time measurements will be prepared and submitted to the AEC following completion of periodic main steam isolation valve leakage tests."

REASON FOR CHANGE

This basis and the original Technical Specification required a one-time report after 18 months of plant operation to report on main steam isolation valve performance and to include an evaluation of programs at other plants to reduce leakage. This reporting requirement was fulfilled by a letter from L O Mayer (NSP) to A Giambusso (AEC) dated December 28, 1972 and supplemented by a letter from L O Mayer (NSP) to J F O'Leary (AEC) dated June 28, 1973.

AEC Change No. 6 to the Monticello Technical Specifications dated April 3, 1973 included certain modifications to the reporting requirements under TS 6.7.C, Special Reports. One of these modifications was to require a report of the results of main steam isolation valve leakage tests and closure time measurements with a submittal date of 90 days after completion of the periodic main steam isolation valve leak rate tests. This proposed change is to make the basis consistent with the new reporting requirement.

10. PROPOSED CHANGE

On page 216, TS 6.7.A.2.i, under Occupational Personnel Radiation Exposure, delete the whole paragraph and substitute the following paragraphs:

"Tabulate the number of personnel exposures for plant personnel (permanent and temporary) in the following exposure increments for the reporting period:

less than 100 mrem, 100 - 500 mrem, 500 - 1250 mrem,
1250 - 2500 mrem, above 2500 mrem.

Tabulate the number of personnel receiving more than 500 mrem exposure in the reporting period according to duty function, i.e., routine plant surveillance and inspection (regular duty), routine plant maintenance, special plant maintenance (describe maintenance), routine refueling operations, special refueling operation (describe operation) and other job related exposures. Annually tabulate the number of personnel receiving more than 2500 mrem and report major cause(s)."

Move TS 6.7.B, Non-Routine Reports, to a new page 216A.

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REASON FOR CHANGE

The proposed wording reflects the current desires of the AEC and is identical to that which has been included in the NSP Prairie Island Plant Technical Specifications. It is highly desirable that TS 6.0, Administrative Controls, be as consistent as possible for each nuclear plant operated by a given licensee.

11. PROPOSED CHANGE

On page 62, Table 4.2.1 change the calibration frequency entry for the Off Gas Isolation Monitors from "once/3 months" to "Note 6."

REASON FOR CHANGE

The proposed wording more precisely defines the method used for the three-month and refueling outage calibrations.

12. PROPOSED CHANGE

On page 70, Table 3.2.5, under Trip Function, change "Reactor Low Pressure Permissive" to "Reactor Low Pressure (Pump Start) Permissive" and change "Low Reactor Pressure Valve Permissive" to "Low Reactor Pressure (Valve Permissive)."

REASON FOR CHANGE

The proposed wording more precisely defines the trip function and is consistent with the functions listed in Table 3.2.2.

EXHIBIT B

This exhibit consists of the following pages revised to incorporate the proposed changes:

Page 7

Page 10

Page 15

Page 30

Page 51

Page 62

Page 70

Page 92

Page 93

Page 134

Page 150

Page 164

Page 216

Page 216A