



Northern States Power Company

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December 21, 1984

Director  
Office of Nuclear Reactor Regulation  
U S Nuclear Regulatory Commission  
Washington, DC 20555

PRAIRIE ISLAND NUCLEAR GENERATING PLANT  
Docket Nos. 50-282 License Nos. DPR-42  
50-306 DPR-60

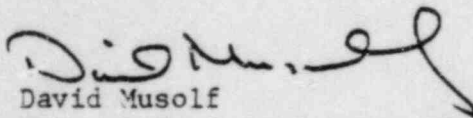
Schedular Exemption Request for Modifications to Meet  
the Requirements of Appendix R to 10 CFR 50

- Reference:
- (a) Letter from D M Musolf to Director of NRR dated January 23, 1984 "Exemption Request to the Requirements of Appendix R to 10 CFR 50"
  - (b) Letter from D M Musolf to Director of NRR dated April 5, 1984 "Information in Support of Exemption Requests dated January 23, 1984 and Request for Exemption from the Requirements of Section III.0 of Appendix R to 10 CFR 50"
  - (c) Letter from D G Eisenhut to D M Musolf dated April 26, 1984 "Exemption Request of January 23, 1984 - Fire Protection Schedular Requirements of 10 CFR 50.48(c) - Prairie Island Nuclear Generating Plant, Units 1 and 2"

Attached for your review and approval are 40 copies of a request for schedular exemption for modifications required to meet Appendix R to 10 CFR 50.

This schedular exemption is necessary due to an expanded scope of studies detailed in Attachment 2 to Reference (a) and difficulties encountered while performing them. Delays were also encountered in purchasing approved cable wrapping material and with longer delivery times than originally planned.

Please contact us if you have any questions or if additional information is necessary.

  
David Musolf  
Manager-Nuclear Support Services

DMM/TAP/dab

- c: Secretary of the Commission (orig + 2 copies)  
Regional Administrator-III, NRC  
NRR Project Manager, NRC  
Resident Inspector, NRC  
G Charnoff

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Enclosures

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UNITED STATES NUCLEAR REGULATORY COMMISSION

NORTHERN STATES POWER COMPANY

PRAIRIE ISLAND NUCLEAR GENERATING PLANT

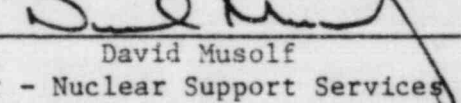
Docket No. 50-282  
50-306

LETTER DATED DECEMBER 21, 1984  
SCHEDULAR EXEMPTION REQUEST FOR MODIFICATIONS TO  
MEET THE REQUIREMENTS OF APPENDIX R TO 10 CFR 50

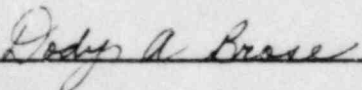
Northern States Power Company, a Minnesota corporation, by this letter dated December 21, 1984 hereby submits a request for exemption from the requirements of 10 CFR Part 50, Section 50.48 (c).

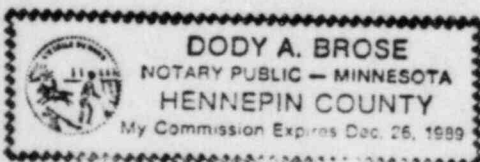
This letter contains no restricted or other defense information.

NORTHERN STATES POWER COMPANY

By   
David Musolf  
Manager - Nuclear Support Services

On this 21st day of December, 1984 before me a notary public in and for said County, personally appeared David Musolf, Manager - Nuclear Support Services, and being first duly sworn acknowledged that he is authorized to execute this document on behalf of Northern States Power Company, that he knows the contents thereof and that to the best of his knowledge, information and belief, the statements made in it are true and that it is not interposed for delay.





EXEMPTION REQUEST  
FIRE PROTECTION RULE SCHEDULAR REQUIREMENTS

I. EXEMPTION REQUEST

Per the provisions of 10 CFR 50.12, Northern States Power requests exemption from the schedular requirements of 10 CFR 50.48 paragraph C as amended by Reference (c) of this letter. The modification for which schedule relief is requested is the cable wrapping for both units 1 and 2.

II. BASIS FOR EXEMPTION REQUEST

Under our technical exemption requests addressing fire areas 31, 32, 58, 59, 73 and 74, Northern States Power committed to wrapping portions of cable trays in an approved one hour fire barrier. The technical exemption requests were subsequently reviewed and approved by the NRC Staff. The tolling period under 10 CFR 50.48(c)(6) was ended on May 4, 1983, requiring completion of the cable wrapping by February 4, 1984. A schedular exemption request was granted on April 26, 1984 which extended the required completion date until December 31, 1984.

Reference (a), provided the Staff with the basis for extending the schedule from February 4, 1984 until December 31, 1984. In its studies were detailed to resolve two safety issues associated with the wrapping. The results of the cable derating study indicated that the loading of power cables in ladders when wrapped would exceed the derated capacity of the cables. This resulted in two additional studies being initiated. One, to identify modifications to power cables in ladders, that would provide sufficient derated capacity to allow wrapping and one to review the effect of the wrapping of power cables in conduit. The power cables required for the Appendix R safe shutdown equipment were then reviewed against the results of these studies and modifications were determined. In many cases it was determined that the cables requiring wrapping under the requirements of Appendix R were a small percentage of the total inventory of cables contained in a ladder. To preclude having to remove the wrap in the future when other modifications are done it was found to be more practical to reroute those cables required under Appendix R separately in conduit and then wrap them. This greatly expanded the number of cables to be routed in conduit. For those cables which were rerouted in conduit an additional complication occurred. To facilitate future modifications in which new cable associated with Appendix R might be necessary, 5-inch conduit was installed to allow for room to install them. It was determined that our field standard for support design and installation only included supports up through 4-inch conduit. This made it necessary to upgrade the field standard to include conduit supports for conduit up to 5 inches in diameter. The net result of the delays



encountered in accomplishing the above activities being that all of the cables have now been rerouted (Unit 1 during the Winter, 1983/84 refueling outage and Unit 2 during the Fall, 1984 refueling outage) and the supporting derating studies completed on December 12, 1984. The modification packages for the wrapping of the conduits are now being processed.

Resolution of the other safety issue involved a review of the cable tray and ladder mechanical support system due to the additional weight of the wrapping. During the course of the study on the supports a concern was raised over how full the actual trays and ladders were becoming and the capacity not only of the supports but the trays and ladders to support both the cables and the wrapping material. As a result, all trays and ladders have been reviewed giving rise to a large number of modifications to assure adequate support. The formal report is to be issued the week of December 24, 1984.

There have also been delays experienced because of the interface between Environmental Qualification work going on at the same time Appendix R work was being planned. In fire areas 31 and 32 the potential for relocating the turbine driven auxiliary feedwater pumps, because of environmental qualifications considerations, would have eliminated the need to wrap the redundant drain because adequate separation would have been provided to meet Appendix R requirements. A study was initiated and was completed this month to review moving those pumps. It was concluded that it was not necessary or practical to move them so the need for wrapping still exists. Planning for wrapping of cables in this area continued while reviewing the possibility of moving the pumps. But the final decision to wrap was ultimately delayed.

Finally, during the procurement of the wrapping material from TSI two problems have delayed delivery of the material. First, following initiation of the purchase requisition, difficulties were encountered in negotiating the terms of the contract. This resulted in substantial delay in the awarding of the contract. The delay in the award of the contract led to a second problem. Lead times of 30 to 40 days quoted during the time of initial planning and discussions become 60 to 90 days by the time the contract was awarded. This was due to the large influx of orders which the manufacturer received when, at the NRC regional workshops, it was learned that TSI's material was one which they had approved for use as a one-hour barrier.

This delay in material delivery now has the material arriving just before the Unit 1 refueling outage. This results in the manpower for installation of the wrap not being available until at least March 1, 1985 which is the current schedule for outage completion. As those individuals complete their outage related work, they will begin installation of the one hour wraps. It is estimated that the installation work will take between 60 and 90 days. Scheduled completion of all cable wrapping is now June 1, 1985.

III. SUMMARY EVALUATION

In summary, Northern States Power has made an extensive effort to comply with the rules of Appendix R. As often occurs at operating plants, evaluation of potential safety issues involving modifications has impacted the schedule for Appendix R work. Evaluation of these issues and their satisfactory resolution resulted in more time being needed than was anticipated. Therefore, extension of the completion date for wrapping of cables is requested to June 1, 1985.