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ACCESSION NBR: 8105180329 DOC. DATE: 81/05/12 NOTARIZED: NO
 FACIL: 50-263 Monticello Nuclear Generating Plant, Northern States
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 RECIP. NAME: RECIPIENT AFFILIATION: Office of Nuclear Reactor Regulation, Director

DOCKET # 05000263

SUBJECT: Submits addl info re 810226 request for relief from requirements of 10CFR50, App R, Section III.J, "Emergency Lighting." Installation of portable lighting should be limited to areas required for safe shutdown.

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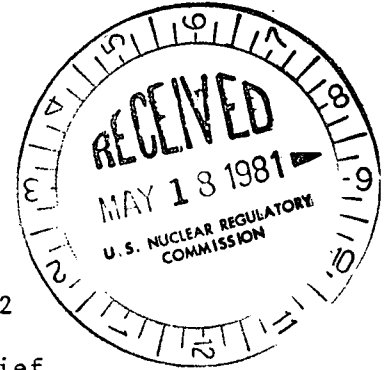


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May 12, 1981

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



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

Additional Information on Request for Relief
from 10 CFR 50, Appendix R, Section III.J

By letter dated February 26, 1981 a request for relief from the requirements of 10 CFR 50, Appendix R, Section III.J, "Emergency Lighting" was submitted. The purpose of this letter is to provide additional information on lighting system design and construction which was requested by our Project Manager in the Division of Licensing. Our February 26, 1981 submittal did not include information related to the effects of plant fires on lighting systems.

Emergency lighting is supplied by 125 VDC panel D-11 circuit 21 via lighting panel L-40 which is located in #11 Battery Room (fire zone 7A). The cabling is then run through embedded conduit to various lighting loads in the turbine building, control room, cable spreading room, diesel generator building, and the battery rooms. All safe shutdown areas outside the reactor building are provided with emergency lighting. The reactor building is not provided with emergency lighting. It is not practical to trace out the cable runs from L-40. The great majority of the cabling is embedded, and that which is exposed is not labeled. It is believed that the cable runs were determined by field engineering during construction and no prints were made. Damage to the emergency lighting system can be postulated if a cable run penetrates the concrete in a fire zone.

The AC lighting system consists of both the normal lighting system, supplied from non-emergency buses, and the essential lighting system, supplied from emergency buses. As with the DC lighting system it is not practical to trace cable runs from lighting panels to individual lights. Essential lighting in the turbine building is powered from ESF Division II MCC #143. Essential lighting in the reactor building is supplied from ESF Division I MCC #133. A single fire could therefore disable the essential lighting system in either building depending on the individual power supply affected. A study performed in 1978 in response to question #37 of Enclosure (1) of T A Ippolito's letter dated June 30, 1978 indicates that a postulated fire which disables the turbine building essential lighting system will not disable the entire emergency lighting system. In addition the study indicates that a fire which disables the entire emergency lighting system will not disable the essential lighting system.

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NORTHERN STATES POWER COMPANY

Director of Nuclear Reactor Regulation
May 12, 1981
Page -2-

Based on these findings it is proposed that the installation of portable battery powered lighting in conformance with Appendix R, Section III.J, be limited to areas of the reactor building required for safe shutdown and that relief be granted from this requirement for other areas required for safe shutdown. Our request for Relief dated February 26, 1981 is therefore revised accordingly.

Please contact us if you have questions related to this information or wish to discuss it in detail.



L O Mayer, PE
Manager of Nuclear Support Services

LOM/DMM/jh

cc J G Keppler
NRC Resident Inspector
G Charnoff