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 Office of Nuclear Reactor Regulation, Director (post 851125)

SUBJECT: Clarifies two items reviewed in 851002 SER & one item in
 830322 ltr re fire protection. Fire barrier analysis encl.

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January 31, 1986

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

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

Clarification of Resolution of Fire
Protection Safety Evaluation Open Items

- References:
- (a) Letter from D B Vassallo,(NRC) to D M Musolf, "Fire Protection Safety Evaluation Open Items" dated October 2, 1985.
 - (b) Letter from D M Musolf to Director of NRR, "Disposition of Unresolved Appendix R Exemption Requests" dated March 22, 1983.
 - (c) Letter from D M Musolf to Director of NRR, "Fire Protection and Safe Shutdown Analysis for Meeting the Requirements of Appendix R, Section III.G.2, Including Exemption Requests" dated June 30, 1982.
 - (d) Letter from D G Eisenhut,(NRC) to All Reactor Licensees and All Applicants for Power Reactor Licensees, "Fire Protection Policy Steering Committee Report (Generic Letter 85-01)" dated January 9, 1985.
 - (e) Letter from D M Musolf to Director of NRR, "Clarification of Previous Disposition of Fire Protection SER Open Items" dated June 7, 1983.

The purpose of this letter is to provide clarification of two items reviewed in the NRC Staff Safety Evaluation (SE) contained in Reference (a) and clarification of one item contained in Reference (b). It is requested that the NRC Staff review and issue a revised SE for the two items contained in Reference (a) and provide formal acknowledgment to Northern States Power of the acceptability of the clarification item in Reference (b).

1. Fire Barrier Boundary - Zones 13B-19A&B

The first item is contained in Section 3.0 of the Staff SE. It states that the licensee has confirmed that the barrier

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between fire zones 13B and 19A and B has been upgraded to the requirements of Section III.G.2 by making it a three-hour barrier. The basis for this statement was contained in Reference (c) which stated, "The two-hour walls between fire zones 13B and 19A and B have been upgraded to the requirements of III.G.2." It was the intent of NSP in making the above statement to indicate that one of the three methods of compliance available in Section III.G.2 of Appendix R had been utilized, not specifically upgrading the barrier to a three-hour rating. The method utilized in bringing this area into compliance was the method allowed by Section III.G.2(c) of Appendix R. That is, the cable and equipment and associated non-safety circuits of the redundant trains are separated by a fire barrier having a minimum of a one-hour fire rating (two-hour barrier already in place) and a fire detection system and automatic fire suppression system are installed. Recent guidance contained in Enclosure 3 to Reference (d) states:

"In order to meet the Regulation, fire area boundaries need not be completely sealed floor-to-ceiling, wall-to-wall boundaries." It goes on further to state, "Where fire area boundaries were not approved under the BTP process, or where such boundaries are not wall-to-wall, floor-to-ceiling boundaries with all penetrations sealed to the fire rating required of the boundaries, licensees must perform an evaluation to assess the adequacy of fire boundaries in their plants to determine if the boundaries will withstand the hazards associated with the area and protect important equipment within the area from a fire outside the area. This analysis must be performed by at least a fire protection engineer and, if required, a systems engineer. Although not required, licensees may submit their evaluations for staff review and concurrence. In any event, these analyses must be retained by the licensees for subsequent NRC audits."

An evaluation was performed as indicated in the above guidance. The evaluation is contained in Attachment A to this letter. Staff review and concurrence of this evaluation is requested.

2. Penetrations and Ventilation Ducting - Zones 13C-19C

The second item is contained in Section 4.0 of the Staff SE. It states that the cable tray penetrations and supply ducting between fire zones 13C and 19C are protected by seals and

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dampers having a three-hour fire resistance to meet the requirements of Appendix A to Branch Technical Position ASB 9.5-1. The basis for this statement was contained in Reference (c) which stated, "The cable tray run between fire zones 13C and 19C has been protected to the requirements of III.G.2." and in Reference (e) which stated, "Cable tray penetrations and supply ducting between fire zones 13C and 19C have been verified to possess a three-hour fire resistance." Both of these statements as contained in their respective references are accurate. As part of NSP's review of Appendix R during our finalization of our safe shutdown analysis and in changing from the fire zone concept to the fire area concept required under Appendix R it was determined that a fire area boundary would be best defined by the ceiling and walls of fire zone 19C. The ceiling and walls necessary to act as a fire area boundary were evaluated and upgraded as necessary. As part of these upgrades, the opening between fire zone 19C and 12C (the turbine building condenser area) was sealed off. Sealing this opening left fire zone 19C with minimal ventilation. It was determined that no safe shutdown equipment contained in fire zone 13C performed safe shutdown functions redundant to those performed by equipment in zone 19C. Since no redundant safe shutdown equipment was contained in the two fire zones, and because of the need for improved ventilation to fire zone 19C, the penetration seals and ventilation damper between fire zones 13C and 19C were removed during the 1984 Outage.

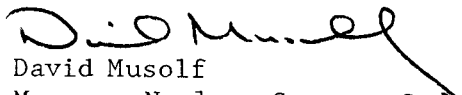
3. Structural Steel - Fire Zone 7C

The third item was contained in Item 2 of Reference (b). It states that in Fire Zone 7C, the Division II Battery Room, the structural steel would be protected to an equivalent one-hour rating and that halon suppression would be provided. This method of compliance is consistent with Section III.G.2(c) of Appendix R to 10 CFR Part 50. It was later determined that it was possible to upgrade the structural steel to an equivalent three-hour rating giving the overall barrier a three-hour resistance. This method of compliance is consistent with Section III.G.2(a) of Appendix R to 10 CFR Part 50. This modification was completed under the schedular requirements applicable to Monticello Nuclear Generating Plant Appendix R modifications.

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Please contact us if you have any questions concerning these clarifications or if we can furnish additional information related to these issues.


David Musolf
Manager-Nuclear Support Services

DMM/TAP

cc: Sec. of the Commission (Orig +2)
Regional Administrator-III, NRC
NRR Project Manager, NRC
Resident Inspector, NRC
G Charnoff

Attachment