

**NRR-PMDAPEm Resource**

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**From:** Beltz, Terry  
**Sent:** Friday, January 08, 2016 6:59 AM  
**To:** Hazelhoff, Amy  
**Cc:** Eckholt, Gene F.; Murphy, Martin C.; marc.pearson@xenuclear.com; Pelton, David; Klein, Alex; Miller, Barry; Kuntz, Robert; Green, Kimberly; Kuntz, Robert; Wu, Angela  
**Subject:** Prairie Island Nuclear Generating Plant - Requests for Additional Information (AFPB) re: LAR to Adopt NFPA 805 (CAC Nos. ME9734 and ME9735)

Dear Ms. Hazelhoff:

By letter dated September 28, 2012 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML12278A405), Northern States Power Company, a Minnesota corporation (NSPM, the licensee), doing business as Xcel Energy, submitted a license amendment request (LAR) to transition its fire protection licensing basis at the Prairie Island Nuclear Generating Plant (PINGP), Units 1 and 2, from paragraph 50.48(b) of Title 10 of the *Code of Federal Regulations* (10 CFR) to 10 CFR 50.48(c), National Fire Protection Association Standard NFPA 805 (NFPA 805).

By letters dated November 8, 2012, and December 18, 2012 (ADAMS Accession Nos. ML12314A144 and ML12354A464, respectively), NSPM provided supplemental information in support of its application. By letter dated January 2, 2013 (ADAMS Accession No. ML13002A209), the NRC staff concluded that there was information in sufficient detail to enable the staff to begin its technical review and make an independent assessment regarding the acceptability of the proposed LAR.

In a letter dated October 22, 2015 (ADAMS Accession No. ML15296A259), the licensee submitted a new LAR Attachment L, Approval Request 4, which involved using a performance-based method to comply with NFPA 805 Section 3.3.5.1 for the installation of wiring above suspended ceilings in several areas of the plant. The U.S. Nuclear Regulatory Commission (NRC) staff in the Fire Protection Branch of the Office of Nuclear Reactor Regulation has reviewed the October 22, 2015, letter and determined that additional information is required to complete its technical review. Draft requests for additional information (RAIs) were provided to NSPM on December 15, 2015. The staff requested a response to the draft RAIs by January 20, 2016.

On January 7, 2016, the NRC staff held a teleconference with NSPM to discuss the draft RAIs and for the staff to provide clarification, as needed. The final RAIs are provided below. In a subsequent phone conversation with you and Mr. Gene Eckholt, it was agreed that NSPM would provide its RAI response by January 29, 2016.

Please don't hesitate to contact Rob Kuntz at (301) 415-3733 if you have any additional questions or concerns.

Sincerely,

TERRY A. BELTZ, SENIOR PROJECT MANAGER  
U.S. Nuclear Regulatory Commission  
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**Fire Protection Engineering (FPE) RAI 07**

In a letter dated October 22, 2015 (ADAMS Accession No. ML15296A259), the licensee submitted a new LAR Attachment L, Approval Request 4, which involved using a performance-based method to comply with NFPA 805 Section 3.3.5.1 for the installation of wiring above suspended ceilings in several areas of the plant.

- a. In Part 1 of the approval request under safety margins and defense in depth, the licensee stated, "The introduction of the non-rated and non-enclosed wiring routed above these suspended ceilings does not impact fire protection defense-in-depth. The wiring located above the ceilings does not compromise administrative fire prevention controls, and does not challenge automatic fire detection and suppression functions, manual fire suppression functions, or post-fire safe shutdown capability."

Please provide a technical basis how each of the three echelons of fire protection defense-in-depth is or is not impacted by the wiring above the suspended ceiling in each of the areas of the plant.

- b. In Part 1 of the approval request, the licensee stated that plant procedures will be revised to ensure that future wiring installation above the suspended ceilings discussed in Part 1 will meet NFPA 805 Section 3.3.5.1, and added Implementation Item 68 in LAR Attachment S, Table S-3.

Please clarify whether Implementation Item 68 will include the administrative control for all suspended ceilings, including the suspended ceiling described in Part 2 of the approval request.

- c. In Part 2 of the approval request, the licensee stated that Fire Area 8, Locker Room, Unit 1, 715' in the southeast corner has several cable trays with multiple types and voltages, ranging from free-air runs of low voltage data/communications and lighting cables to open trays containing 120 VAC [volts alternating current] and 4 kV [kilovolt] power cables above the suspended ceiling. In its discussion of safety margin and defense-in-depth, the licensee stated, "The introduction of the non-rated and non-enclosed wiring routed above the suspended ceiling in this fire area location does not impact fire protection defense-in-depth. The wiring located above the ceilings does not compromise administrative fire prevention controls, and does not challenge automatic fire detection and suppression functions, manual fire suppression functions, or post-fire safe shutdown capability." However, the licensee does not discuss the fire hazards associated with the 120 VAC and 4 kV power cables located in open trays and the basis for not challenging the fire protection systems.

Please provide a clear technical basis for concluding that the fire hazards, including potential ignition sources, that are associated with the power cables above the suspended ceiling in Fire Area 8, Locker Room, Unit 1, 715' in the southeast corner, do not impact the three elements of defense-in-depth. Include with the technical basis a specific discussion on how each of the three echelons of fire protection defense-in-depth is or is not impacted by the wiring above the suspended ceiling in Fire Area 8, Locker Room, Unit 1, 715' in the southeast corner.

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**From:** Beltz, Terry

**Created By:** Terry.Beltz@nrc.gov

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