NRR-DMPSPEm Resource

From: Kuntz, Robert
Sent: Friday, June 22, 2018 6:37 AM
To: Jurek, Shane M.
Subject: request for additional information RE: Monticello Request for Exemption from Appendix R Requirements (L-2018-LLE-0001)

Mr. Jurek,
By letter dated March 21, 2018 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML18080A161), Northern States Power Company (the licensee) requested an Exemption from the requirements in Title 10 of *The Code of Federal Regulations* for Monticello Nuclear Generating Plant (MNGP). Specifically, the letter requested exemption from the requirements of 10 CFR 50, Appendix R, Subsection III.G.2.a with respect to the requirement that structural steel supporting a fire barrier or forming a fire barrier be protected to provide fire resistance equivalent to that of the fire barrier.
The NRC staff has determined that additional information is required to complete its review. The following is a request for additional information (RAI). As discussed during the clarification call on June 21, 2018, the NRC staff expects a response to the RAI by July 23, 2018.
Robert Kuntz
Senior Project Manager (Monticello and Prairie Island)
NRC/NRR/DORL/LPL3
(301)415-3733

REQUEST FOR ADDITIONAL INFORMATION

RISK-INFORMED APPENDIX R, III.G.2 EXEMPTION REQUEST

MONTICELLO NUCLEAR GENERATING PLANT, UNITS 1 AND 2

NORTHERN STATES POWER COMPANY

DOCKET NO. 50-263

EPID L-2018-LLE-0001

By letter dated March 21, 2018 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML18080A161), Northern States Power Company (the licensee) requested an Exemption from the requirements in Title 10 of The Code of Federal Regulations for Monticello Nuclear Generating Plant (MNGP). Specifically, the letter requested exemption from the requirements of 10 CFR 50, Appendix R, Subsection III.G.2.a with respect to the requirement that structural steel supporting a fire barrier or forming a fire barrier be protected to provide fire resistance equivalent to that of the fire barrier.
Section 50.48 of title 10 of the *Code of Federal Regulations* (10 CFR), requires that nuclear power plants that were licensed before January 1, 1979, satisfy the requirements of appendix R to 10 CFR part 50, section III.G.2.a, “Separation of cables and equipment and associated non-safety circuits of redundant trains by a fire barrier having a 3-hour rating.” Pursuant to § 50.12, the Commission may, upon application by any interested person or upon its own initiative, grant exemptions from the requirements of 10 CFR part 50 when the exemptions are authorized by law, will not present an undue risk to public health or safety, and are consistent with the common defense and security. However, § 50.12(a)(2) states that the Commission will not consider granting an exemption unless special circumstances are present as set forth in § 50.12(a)(2). Under § 50.12(a)(2)(ii), special circumstances are present when application of the regulation in the particular circumstances would not serve, or is not necessary to achieve, the underlying purpose of the rule.
The U.S. Nuclear Regulatory Commission staff has reviewed the exemption request and determined that the following additional information is required in order to complete the review:

RAI 01
Section 3.2 of the submittal states that the ignition sources in the area consist of batteries, battery chargers, a dry transformer, or electrical cabinets. In Section 3.3.2, the licensee states that a 317 kW transient fire was assumed to represent the most limiting postulated fire and that NUREG/CR-6850 was used as guidance for the analysis. However, it is not clear why a smaller transient fire was selected when the primary ignition sources noted all represent larger postulated fires.
Provide the technical justification for why the smaller transient fire was selected as more limiting than a battery, battery charger, dry transformer, or electrical cabinet fire.

RAI 02
Section 3.3.2 of the submittal states that the physical fire dimensions of the assumed 317 kilowatt (kW) fire were 2 foot (ft) by 2 ft for the plant access control area and 1 ft by 1 ft for the battery rooms. Since the physical dimensions of the prescribed fire can impact the resulting zone of influence, it is not clear why a 317kW fire in different locations had different zones of influence.
Provide the technical justification for why different fire dimensions were used for otherwise identical heat release rates.

RAI 03
Section 3.3.2 of the submittal states that for the battery rooms analysis, the door to the room was assumed to be open but does not state whether the same assumption was made for the plant access control area. Since the door position, i.e., oxygen supply, in the model can impact the combustion properties and results, it was not clear what assumptions were applicable for the plant access control area.
State whether the same assumptions used for the battery rooms were made for the plant access control area, or provide the technical justification for not doing so.

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Mail Envelope Properties (Robert.Kuntz@nrc.gov20180622063700)

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"Jurek, Shane M." <Shane.Jurek@xenuclear.com>
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