

NRR-PMDAPem Resource

From: GALVIN, DENNIS J
Sent: Tuesday, June 28, 2016 4:31 PM
To: Scott Connelly (Scott.Connelly@duke-energy.com)
Cc: ROBINSON, JAY E; BARRETT, HAROLD T; METZGER, BRIAN J; GREEN, KIMBERLY J; ORF, TRACY J; Lavin, Kelly (Kelly.Lavin@duke-energy.com)
Subject: Robinson NFPA-805 LAR Attachment L RAI (MF2746)
Attachments: Robinson NFPA-805 LAR Attachment L Final RAI MF2746.docx

SUBJECT: H. B. ROBINSON STEAM ELECTRIC PLANT UNIT NO. 2 – REQUEST FOR ADDITIONAL INFORMATION REGARDING LICENSE AMENDMENT REQUEST TO ADOPT NATIONAL FIRE PROTECTION ASSOCIATION STANDARD 805, “PERFORMANCE-BASED STANDARD FOR FIRE PROTECTION FOR LIGHT WATER REACTOR ELECTRIC GENERATING PLANTS” (CAC NO. MF2746)

Scott

By letter dated September 16, 2013 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML13267A211), Duke Energy Progress, Inc., (the licensee) submitted a license amendment request (LAR) for H. B. Robinson Steam Electric Plant Unit No. 2 (Robinson). This LAR would adopt a new fire protection licensing basis that complies with the requirements of Title 10 of the *Code of Federal Regulations*, Sections 50.48(a) and (c); the guidance in Regulatory Guide 1.205, Revision 1, "Risk-Informed, Performance-Based Fire Protection for Existing Light-Water Nuclear Power Plants"; and National Fire Protection Association (NFPA) 805, "Performance-Based Standard for Fire Protection for Light Water Reactor Electric Generating Plants" (2001 Edition).

By letter dated May 25, 2016 (ADAMS Accession Nos. ML16158A006 and ML16158A267), the licensee provided a response to a staff request for additional information (RAI) and revisions to several sections of the LAR. In LAR Attachment L, “NFPA 805, Chapter 3 Requirements for Approval,” the licensee included new Approval Request 5 that requested NRC staff approval for the use of certain insulation materials. The NRC staff has determined that additional information is needed to complete its review related to that request and as such, Fire Protection Engineering (FPE) RAI 16 is attached.

The enclosed RAI was e-mailed to the licensee in draft form on June 15, 2016 (ADAMS Accession No. ML16167A455). An RAI clarification call was held on June 28, 2016. On the call, the licensee agreed to provide the RAI response by July 28, 2016. The NRC staff agreed with this date.

If you have any questions, contact me at (301) 415-6256.

Respectfully,

Dennis Galvin
Project Manager
U.S Nuclear Regulatory Commission
Office of Nuclear Reactor Regulation
Division of Operating Reactor Licensing
Licensing Project Branch 2-2
301-415-6256

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REQUEST FOR ADDITIONAL INFORMATION
REGARDING LICENSE AMENDMENT REQUEST TO ADOPT
NATIONAL FIRE PROTECTION ASSOCIATION STANDARD (NFPA) 805,
“PERFORMANCE-BASED STANDARD FOR FIRE PROTECTION
FOR LIGHT WATER REACTOR ELECTRIC GENERATING PLANTS.”
DUKE ENERGY PROGRESS, INC.
H. B. ROBINSON STEAM ELECTRIC PLANT UNIT NO. 2
DOCKET NO. 50-261

Fire Protection Engineering (FPE) Request for Additional Information (RAI) 16

In accordance with 10 CFR 50.48(c)(2)(vii), a licensee may request NRC approval for use of a performance-based (PB) method as a means of demonstrating compliance with the prescriptive NFPA 805, Chapter 3, fundamental fire protection program (FPP) elements and minimum design requirements. Paragraph 50.48(c)(2)(vii) of 10 CFR requires that an acceptable PB approach accomplish the following:

- (A) Satisfy the performance goals, performance objectives, and performance criteria specified in NFPA 805 related to nuclear safety and radiological release;
- (B) Maintain safety margins; and
- (C) Maintain fire protection defense-in-depth (fire prevention, fire detection, fire suppression, mitigation, and post-fire safe shutdown capability).

In a letter dated May 25, 2016 (ADAMS Accession Nos. ML16158A006 and ML16158A267), the licensee revised the license amendment request (LAR) Attachment L, “NFPA 805, Chapter 3 Requirements for Approval,” by adding an additional approval request not submitted with its original LAR. The licensee requested NRC staff review and approval of a PB method to demonstrate an equivalent level of fire protection for the requirements of NFPA 805 Section 3.3.4, Insulation Materials because the insulation materials do not meet the definition of limited combustible due to the heat value exceeding 3500 Btu/Lb. Based on the information provided by the licensee in its request, the NRC staff was unable to complete its review.

The licensee did not fully address the requirements of 10 CFR 50.48(c)(2)(vii) in the following sections of the approval request: “Basis for Request”, “Nuclear Safety and Radiological Release Performance Criteria”, and “Safety Margin and Defense-In-Depth.” In particular, the licensee did not fully address the requirements for using insulation materials with a heat value exceeding 3500 Btu/Lb.

The NRC staff requests that the licensee revise the approval request to fully address 10 CFR 50.48 (c)(2)(vii). The revised approval request should address how the PB method (1) satisfies the performance goals, performance objectives, and performance criteria specified in NFPA 805

related to nuclear safety and radiological release; (2) maintains safety margins; and (3) maintains fire protection defense-in-depth per 10 CFR 50.48 (c)(2)(vii).