

NRR-PMDAPem Resource

From: George, Andrea
Sent: Tuesday, January 12, 2016 7:33 AM
To: BICE, DAVID B (ANO)
Cc: CLARK, ROBERT W; PYLE, STEPHENIE L
Subject: 3rd Round Request for Additional Information - ANO-1 NFPA 805 LAR - TAC No. MF3419
Attachments: ANO-1 SSA 11-01 RAI response clarification.docx

Mr. Bice,

By letter dated January 29, 2014 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML14029A438), as supplemented by letters dated May 19, June 16, July 21, August 12, September 22, November 4, and November 17, 2015 (ADAMS Accession Nos. ML15139A196, ML15167A503, ML15203A205, ML15224A729, ML15265A113, ML15308A452, and ML15321A076, respectively), Entergy Operations, Inc. (the licensee), submitted a license amendment request (LAR) to change the Arkansas Nuclear One, Unit 1 (ANO 1), fire protection program to one based on the National Fire Protection Association Standard 805 (NFPA 805), "Performance-Based Standard for Fire Protection for Light Water Reactor Electric Generating Plants," 2001 Edition, as incorporated into Title 10 of the Code of Federal Regulations (10 CFR) Section 50.48(c).

In the course of its review, the U.S. Nuclear Regulatory Commission (NRC) staff has determined that additional information is required in order to complete its evaluation. Please treat this email as formal transmittal of the third round RAI which is attached. A clarification call was held with your staff on January 6, 2016, during which it was agreed that a response would be provided by January 20, 2016. If there are difficulties in meeting this date, please call or email.

Sincerely,

Andrea George
Project Manager
Division of Operating Reactor Licensing
U.S. Nuclear Regulatory Commission
301-415-1081

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From: George, Andrea

Created By: Andrea.George@nrc.gov

Recipients:
"CLARK, ROBERT W" <RCLARK@entergy.com>
Tracking Status: None
"PYLE, STEPHENIE L" <SPYLE@entergy.com>
Tracking Status: None
"BICE, DAVID B (ANO)" <DBICE@entergy.com>
Tracking Status: None

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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 GENERATING PLANTS

ENTERGY OPERATIONS, INC.

ARKANSAS NUCLEAR ONE, UNIT 1

DOCKET NO. 50-313

By letter dated January 29, 2014 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML14029A438), as supplemented by letters dated May 19, June 16, July 21, August 12, September 22, November 4, and November 17, 2015 (ADAMS Accession Nos. ML15139A196, ML15167A503, ML15203A205, ML15224A729, ML15265A113, ML15308A452, and ML15321A076, respectively), Entergy Operations, Inc. (the licensee), submitted a license amendment request (LAR) to change the Arkansas Nuclear One, Unit 1 (ANO-1), fire protection program to one based on the National Fire Protection Association Standard 805 (NFPA 805), "Performance-Based Standard for Fire Protection for Light Water Reactor Electric Generating Plants," 2001 Edition, as incorporated into Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.48(c). In the course of its review, the U.S. Nuclear Regulatory Commission (NRC) staff has determined that additional information is required in order to complete its evaluation, as detailed below.

In its letter dated November 4, 2015, the licensee submitted a response to Safe Shutdown Analysis (SSA) request for additional information (RAI) 11.01. Specifically, the licensee provided an extensive qualitative explanation concluding that installation of an inhibit circuit (i.e., a shorting switch) addresses the circuit failure modes identified in Information Notice (IN) 92-18, "Potential for Loss of Remote Capability during a Control Room Fire" (ADAMS Accession No. ML031200481), for several valves at ANO-1. Based on the licensee's response to SSA RAI 11.01, it appears that these shorting switches are credited with precluding spurious actuations of the IN 92-18 valves, and so fire-induced damage on DC control circuits located in the vicinity of cables having fusing greater than 10 amps of the inhibit circuits is not modeled in the Fire PRA.

The NRC staff cannot conclude that spurious actuations can be precluded without additional information. As an alternative to concluding that spurious actuation is precluded, spurious actuation need not be modeled if the risk is insignificant for both transition and post-transition risk evaluations (i.e., less than the self-approval risk guidelines); however, the NRC staff cannot reach this conclusion with the limited risk information provided by the licensee. Please provide a sensitivity study demonstrating that the risk impact of failing the protected valves is insignificant, or that the risk of the excluded scenarios in which a fire causes a spurious actuation and the inhibit switch fails is insignificant with regard to the plant change evaluations.

Enclosure