

NRR-DMPSPeM Resource

From: Purnell, Blake
Sent: Tuesday, April 16, 2019 11:18 AM
To: Lashley, Phil H.
Cc: talentz@firstenergycorp.com; Wrona, David; Nesser, Kathryn M
Subject: Davis-Besse - Proposed License Condition and Draft Safety Evaluation for the License Amendment Request to Adopt NFPA 805 (EPID L-2015-LLF-001)
Attachments: DB NFPA 805 License Condition.docx

Mr. Lashley:

By application dated December 16, 2015 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML15350A314), as supplemented by letters dated February 2, March 7, July 28, and December 16, 2016; January 17, June 16, and October 9, 2017; and April 2, September 11, and November 20, 2018 (ADAMS Accession Nos. ML16033A085, ML16067A195, ML16210A422, ML16351A330, ML17017A504, ML17170A000, ML17284A190, ML18094A798, ML18254A073, and ML18324A677, respectively), FirstEnergy Nuclear Operating Company (FENOC, the licensee), submitted a license amendment request (LAR) for Davis-Besse Nuclear Power Station, Unit No. 1 (DBNPS). The proposed amendment would change the current fire protection program at DBNPS 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* Section 50.48(c).

In LAR Attachment M, FENOC proposed a new license condition to replace the current DBNPS license condition 2.C(4) in its entirety. The U.S. Nuclear Regulatory Commission (NRC) staff has reviewed the LAR, as supplemented, and is proposing to modify the licensee's proposed license condition to also require the implementation of the items listed in Attachment S, Table S 2, "Implementation Items," to the FENOC letter dated November 20, 2018, within 2 years following issuance of the license amendment. In addition, the NRC staff is proposing to make some editorial changes to improve readability and consistency with the DBNPS license. The NRC staff requests that FENOC confirm that it understands and accepts the attached license condition by May 17, 2019.

On April 10, 2019, the NRC staff provided FENOC with a draft safety evaluation (SE) of the LAR to review for factual accuracy and completeness. The draft SE is non-public as it contains pre-decisional information. The Director of the Office of Nuclear Reactor Regulation approved the release of the draft SE to the licensee. The draft SE does not represent NRC staff approval nor convey any NRC staff positions regarding the LAR, and it is subject to change. Once the NRC staff has made a final decision on the LAR, the staff will issue a public version of the final SE. Please provide comments regarding the factual accuracy and completeness of the draft SE by May 3, 2019.

If you have any questions, please contact me at 301-415-1380 or at Blake.Purnell@nrc.gov.

Sincerely,

Blake Purnell, Project Manager
Plant Licensing Branch III
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission

Docket No. 50-346

OFFICE	NRR/DORL/LPL3/PM	NRR/DORL/LPL3/BC
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DATE	4/16/19	4/16/19

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DB NFPA 805 License Condtion.docx		22385

Options
Priority: Standard
Return Notification: No
Reply Requested: No
Sensitivity: Normal
Expiration Date:
Recipients Received:

PROPOSED LICENSE CONDITION
LICENSE AMENDMENT REQUEST TO ADOPT
NATIONAL FIRE PROTECTION ASSOCIATION STANDARD 805
FIRSTENERGY NUCLEAR OPERATING COMPANY
DAVIS-BESSE NUCLEAR POWER STATION, UNIT NO. 1
DOCKET NO. 50-346

By application dated December 16, 2015 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML15350A314), as supplemented by letters dated February 2, March 7, July 28, and December 16, 2016; January 17, June 16, and October 9, 2017; and April 2, September 11, and November 20, 2018 (ADAMS Accession Nos. ML16033A085, ML16067A195, ML16210A422, ML16351A330, ML17017A504, ML17170A000, ML17284A190, ML18094A798, ML18254A073, and ML18324A677, respectively), FirstEnergy Nuclear Operating Company (FENOC, the licensee), submitted a license amendment request (LAR) for Davis-Besse Nuclear Power Station, Unit No. 1 (DBNPS). The proposed amendment would change the current fire protection program at DBNPS 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 LAR Attachment M, FENOC proposed a new license condition to replace the current DBNPS license condition 2.C(4) in its entirety. The U.S. Nuclear Regulatory Commission (NRC) staff has reviewed the LAR, as supplemented, and is proposing to modify the licensee's proposed license condition to also require the implementation of the items listed in Attachment S, Table S-2, "Implementation Items," to the FENOC letter dated November 20, 2018, within 2 years following issuance of the license amendment. In addition, the NRC staff is proposing to make some editorial changes to improve readability and consistency with the DBNPS license.

The NRC staff requests that FENOC confirm that it understands and accepts the following license condition, which will replace DBNPS license condition 2.C(4) in its entirety:

2.C(4) Fire Protection

FENOC shall implement and maintain in effect all provisions of the approved fire protection program that comply with 10 CFR 50.48(a) and 10 CFR 50.48(c), as specified in the licensee amendment request dated December 16, 2015, as supplemented by letters dated February 2, March 7, July 28, and December 16, 2016; January 17, June 16, and October 9, 2017; April 2, September 11, and November 20, 2018; and XXX, 2019, and as approved by Amendment No. XXX. Except where NRC approval for changes or deviations is required by 10 CFR 50.48(c), and provided no other regulation, technical specification, license condition or requirement would require prior NRC approval, the licensee may make changes to the fire protection program without prior approval of the Commission if those changes satisfy the provisions set forth in 10 CFR

50.48(a) and 10 CFR 50.48(c), the change does not require a change to a technical specification or a license condition, and the criteria listed below are satisfied.

Risk-Informed Changes that May Be Made Without Prior NRC Approval

A risk assessment of the change must demonstrate that the acceptance criteria below are met. The risk assessment approach, methods, and data shall be acceptable to the NRC and shall be appropriate for the nature and scope of the change being evaluated; be based on the as-built, as-operated, and maintained plant; and reflect the operating experience at the plant. Acceptable methods to assess the risk of the change may include methods that have been used in the peer-reviewed fire probabilistic risk assessment model, methods that have been approved by the NRC through a plant-specific license amendment or NRC approval of generic methods specifically for use in NFPA 805 risk assessments, or methods that have been demonstrated to bound the risk impact.

- (a) Prior NRC review and approval is not required for changes that clearly result in a decrease in risk. The proposed change must also be consistent with the defense-in-depth philosophy and must maintain sufficient safety margins. The change may be implemented following completion of the plant change evaluation.
- (b) Prior NRC review and approval is not required for individual changes that result in a risk increase less than 10^{-7} /year for core damage frequency and less than 10^{-8} /year for large early release frequency. The proposed change must also be consistent with the defense-in-depth philosophy and must maintain sufficient safety margins. The change may be implemented following completion of the plant change evaluation.

Other Changes that May Be Made Without Prior NRC Approval

- (1) Changes to NFPA 805, Chapter 3, Fundamental Fire Protection Program

Prior NRC review and approval are not required for changes to the NFPA 805, Chapter 3, fundamental fire protection program elements and design requirements for which an engineering evaluation demonstrates that the alternative to the Chapter 3 element is functionally equivalent or adequate for the hazard. The licensee may use an engineering evaluation to demonstrate that a change to an NFPA 805, Chapter 3, element is functionally equivalent to the corresponding technical requirement. A qualified fire protection engineer shall perform the engineering evaluation and conclude that the change has not affected the functionality of the component, system, procedure, or physical arrangement, using a relevant technical requirement or standard.

The licensee may use an engineering evaluation to demonstrate that changes to certain NFPA 805, Chapter 3, elements are acceptable because the alternative is adequate for the hazard. Prior NRC review and approval would not be required for alternatives to four specific sections of NFPA 805, Chapter 3, for which an engineering evaluation demonstrates that the alternative to the Chapter 3 element is adequate for the hazard. A qualified fire protection engineer shall perform the engineering evaluation and conclude that the change has not affected the functionality of the component, system, procedure, or physical arrangement, using a relevant technical requirement or standard. The four specific sections of NFPA 805, Chapter 3, are as follows:

- “Fire Alarm and Detection Systems” (Section 3.8);
- “Automatic and Manual Water-Based Fire Suppression Systems” (Section 3.9);
- “Gaseous Fire Suppression Systems” (Section 3.10); and
- “Passive Fire Protection Features” (Section 3.11).

This License Condition does not apply to any demonstration of equivalency under Section 1.7 of NFPA 805.

(2) Fire Protection Program Changes that Have No More than Minimal Risk Impact

Prior NRC review and approval are not required for changes to the licensee’s fire protection program that have been demonstrated to have no more than a minimal risk impact. The licensee may use its screening process, as approved by Amendment No. XXX, to determine that certain fire protection program changes meet the minimal criterion. The licensee shall ensure that fire protection defense-in-depth and safety margins are maintained when changes are made to the fire protection program.

Transition License Conditions

- (1) Before achieving full compliance with 10 CFR 50.48(c), as specified by (2) and (3) below, risk-informed changes to the licensee’s fire protection program may not be made without prior NRC review and approval unless the change has been demonstrated to have no more than a minimal risk impact, as described in (2) above.
- (2) The licensee shall implement the modification described in Attachment S, Table S-1, “Plant Modifications Committed,” to the FENOC letter dated November 20, 2018, within 2 years following issuance of the license amendment. The licensee shall maintain appropriate compensatory measures in place until completion of this modification.

- (3) The licensee shall implement the items listed in Attachment S, Table S-2, "Implementation Items," to the FENOC letter dated November 20, 2018, within 2 years following issuance of the license amendment.