



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

February 22, 2016

Mr. Brian D. Boles
Site Vice President
FirstEnergy Nuclear Operating Company
Mail Stop A-DB-3080
5501 North State, Route 2
Oak Harbor, OH 43449-9760

SUBJECT: DAVIS-BESSE NUCLEAR POWER STATION, UNIT NO. 1 – SUPPLEMENTAL
INFORMATION NEEDED FOR ACCEPTANCE OF LICENSE AMENDMENT
REQUEST TO ADOPT NATIONAL FIRE PROTECTION ASSOCIATED
STANDARD 805 (CAC NO. MF7190)

Dear Mr. Boles:

By application dated December 16, 2015 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML15350A314), as supplemented by letter dated February 2, 2016 (ADAMS Accession No. ML16033A085) FirstEnergy Nuclear Operating Company (FENOC, the licensee) submitted a license amendment request for the Davis-Besse Nuclear Power Station, Unit No. 1. The proposed amendment requests to adopt National Fire Protection Associated Standard 805 (NFPA 805), "Performance-Based Standard for Fire Protection for Light Water Reactor Electric Generating Plants," 2001 Edition (ADAMS Accession No. ML010800360), as an alternative to compliance with existing fire protection program requirements.

The purpose of this letter is to provide the results of the U.S. Nuclear Regulatory Commission (NRC) staff's acceptance review of this amendment request. The acceptance review was performed to determine if there is sufficient technical information in scope and depth to allow the NRC staff to complete its detailed technical review. The acceptance review is also intended to identify whether the application has any readily apparent information insufficiencies in its characterization of the regulatory requirements or the licensing basis of the plant.

Consistent with Section 50.90 of Title 10 of the *Code of Federal Regulations* (10 CFR), an amendment to the license (including the technical specifications) must fully describe the changes requested, and following as far as applicable, the form prescribed for original applications. Section 50.34 of 10 CFR addresses the content of technical information required. This section stipulates that the submittal address the design and operating characteristics, unusual or novel design features, and principal safety considerations.

The NRC staff has reviewed your application and concluded that the information delineated in the enclosure to this letter is necessary to enable the staff to make an independent assessment regarding the acceptability of the proposed amendment in terms of regulatory requirements and the protection of public health and safety and the environment.

In order to make the application complete, the NRC staff requests that FENOC supplement the application to address the information requested in the enclosure by March 10, 2016. This will enable the NRC staff to begin its detailed technical review. If the information responsive to the

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NRC staff's request is not received by the above date, the application will not be accepted for review pursuant to 10 CFR 2.101, and the NRC will cease its review activities associated with the application. If the application is subsequently accepted for review, you will be advised of any further information needed to support the staff's detailed technical review by separate correspondence.

The information requested and associated time frame in this letter were discussed with Phil Lashley and other members of your staff on February 22, 2016.

If you have any questions, please contact me at (301) 415-1380.

Sincerely,

A handwritten signature in black ink, appearing to read 'B. Purnell', written in a cursive style.

Blake Purnell, Project Manager
Plant Licensing Branch III-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-346

Enclosure:
As stated

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SUPPLEMENTAL INFORMATION NEEDED

LICENSE AMENDMENT REQUEST

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 letter dated February 2, 2016 (ADAMS Accession No. ML16033A085) FirstEnergy Nuclear Operating Company (FENOC, the licensee) submitted a license amendment request (LAR) for the Davis-Besse Nuclear Power Station, Unit No. 1. The proposed amendment requests to adopt National Fire Protection Associated Standard 805 (NFPA 805), "Performance-Based Standard for Fire Protection for Light Water Reactor Electric Generating Plants," 2001 Edition (ADAMS Accession No. ML010800360), as an alternative to compliance with existing fire protection program requirements.

The Nuclear Regulatory Commission (NRC) staff has determined that the following information is necessary to enable the staff to make an independent assessment regarding the acceptability of the proposed amendment request in terms of regulatory requirements and the protection of public health and safety and the environment.

Request

Provide the facts and observations (F&Os) from the last full-scope peer review of the internal events probabilistic risk assessment (IEPRA) and their resolutions.

LAR Attachment U provides the results of a gap assessment of the IEPRA, the F&Os from a focused-scope peer review of the large early release frequency (LERF) element of the IEPRA, and the F&Os from a focused-scope peer review of the internal flooding probabilistic risk assessment (PRA). LAR Attachment U does not provide the F&Os from the last full-scope peer review or their resolutions. The full text of these F&Os, and the licensee's resolution to each, are required to facilitate review of the technical adequacy of the IEPRA from which the fire PRA is constructed.

Basis

Section 4.3, "Fire Probabilistic Risk Assessment," of NRC Regulatory Guide (RG) 1.205, "Risk-Informed, Performance-Based Fire Protection for Existing Light-Water Nuclear Power Plants," Revision 1 (ADAMS Accession No. ML092730314) states:

The fire PRA used to perform the risk assessments in NFPA 805, Section 2.4.4 (plant change evaluation), and Section 4.2.4.2 (fire risk evaluation), must be of sufficient technical adequacy to support the application. In accordance with Section 2.4.3.3 of NFPA 805, the NRC must find the PRA approach, methods,

and data acceptable. There are two aspects to assessing the technical adequacy of the PRA results. First, the underlying PRA (i.e., the baseline model) should be technically adequate. Second, the analyses, assumptions, and approximations to map the cause-effect relationship associated with the application must be technically adequate.

The licensee may address the first aspect for risk-informed applications by conforming to the peer review and self-assessment processes in Regulatory Guide 1.200 [RG 1.200, "An Approach for Determining the Technical Adequacy of Probabilistic Risk Assessment Results for Risk-Informed Activities," Revision 2 (ADAMS Accession No. ML090410014)]. This regulatory guide provides one approach acceptable to the NRC for determining the technical adequacy of the baseline PRA model. Regulatory Guide 1.200 endorses, with certain clarifications and qualifications, Addendum A to the American Society of Mechanical Engineers/American Nuclear Society (ASME/ANS) RA-Sa 2009, "Standard for Probabilistic Risk Assessment for Nuclear Power Plant Applications" ("PRA Standard") (Ref. 15).

RG 1.205, Section 4.3, further states: "The licensee should submit the documentation described in Section 4.2 of Regulatory Guide 1.200 to address the baseline PRA and application-specific analyses." Section 4.2 of RG 1.200 states, in part, that the application should discuss the resolution of the peer review F&Os that are applicable to the parts of the PRA required for the application. This should include (1) a discussion of how the PRA model has been changed, and (2) justification in the form of a sensitivity study that demonstrates the accident sequences or contributors significant to the application decision were not adversely impacted (remained the same) by the particular issue.

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The information requested and associated time frame in this letter were discussed with Phil Lashley and other members of your staff on February 22, 2016.

If you have any questions, please contact me at (301) 415-1380.

Sincerely,

/RA/

Blake Purnell, Project Manager
Plant Licensing Branch III-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-346

Enclosure:
As stated

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