

## NRR-DRMAPEm Resource

---

**From:** Purnell, Blake  
**Sent:** Tuesday, June 11, 2019 3:57 PM  
**To:** talentz@firstenergycorp.com  
**Cc:** Lashley, Phil H.; Nesser, Kathryn M; Regner, Lisa  
**Subject:** Davis-Besse Nuclear Power Station - Request for Additional Information Regarding License Amendment Request for Permanently Defueled Technical Specifications (EPID L-2019-LLA-0012)  
**Attachments:** DB PDTs RAI-1.pdf

Mr. Lentz:

By application dated February 5, 2019 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML19036A523), as supplemented by letter dated May 16, 2019 (ADAMS Accession No. ML19136A240) FirstEnergy Nuclear Operating Company (the licensee) submitted a license amendment request for Davis-Besse Nuclear Power Station, Unit No. 1 (Davis-Besse). The proposed amendment would revise the Davis-Besse license and technical specifications for the permanent cessation of reactor operation and permanent defueling of the reactor.

The NRC staff has reviewed the application and determined that it needs additional information to complete its review. A response to the attached request for additional information is requested to be provided within 30 days from the date of this email. If you have any questions, please contact me at (301) 415-1380.

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/DMLR/MCCB/BC	NRR/DORL/LPL3/BC(A)
NAME	BPurnell	SBloom	LRegner
DATE	6/11/19	5/17/19	6/4/19

**Hearing Identifier:** NRR\_DRMA  
**Email Number:** 44

**Mail Envelope Properties** (BL0PR0901MB2340C4D5ED1DCA8A43C82851E6ED0)

**Subject:** Davis-Besse Nuclear Power Station - Request for Additional Information  
Regarding License Amendment Request for Permanently Defueled Technical Specifications (EPID  
L-2019-LLA-0012)

**Sent Date:** 6/11/2019 3:57:18 PM

**Received Date:** 6/11/2019 3:57:00 PM

**From:** Purnell, Blake

**Created By:** Blake.Purnell@nrc.gov

**Recipients:**

"Lashley, Phil H." <phlashley@firstenergycorp.com>

Tracking Status: None

"Nesser, Kathryn M" <kmnesser@firstenergycorp.com>

Tracking Status: None

"Regner, Lisa" <Lisa.Regner@nrc.gov>

Tracking Status: None

"talentz@firstenergycorp.com" <talentz@firstenergycorp.com>

Tracking Status: None

**Post Office:** BL0PR0901MB2340.namprd09.prod.outlook.com

<b>Files</b>	<b>Size</b>	<b>Date &amp; Time</b>
MESSAGE	1247	6/11/2019 3:57:00 PM
DB PDTS RAI-1.pdf	146736	

**Options**

**Priority:** Standard

**Return Notification:** No

**Reply Requested:** No

**Sensitivity:** Normal

**Expiration Date:**

**Recipients Received:**

REQUEST FOR ADDITIONAL INFORMATION  
LICENSE AMENDMENT REQUEST FOR  
PERMANENTLY DEFUELED TECHNICAL SPECIFICATIONS  
FIRSTENERGY NUCLEAR OPERATING COMPANY  
DAVIS-BESSE NUCLEAR POWER STATION, UNIT NO. 1  
DOCKET NO. 50-346

By application dated February 5, 2019 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML19036A523), as supplemented by letter dated May 16, 2019 (ADAMS Accession No. ML19136A240) FirstEnergy Nuclear Operating Company (FENOC, the licensee) submitted a license amendment request (LAR) for Davis-Besse Nuclear Power Station, Unit No. 1 (Davis-Besse). The proposed amendment would revise the Davis-Besse license and technical specifications for the permanent cessation of reactor operation and permanent defueling of the reactor.

The U.S. Nuclear Regulatory Commission (NRC or Commission) staff is reviewing the LAR and has determined that the additional information below is required to complete the review.

**Request for Additional Information (RAI) 1**

Background

The licensee proposes to delete license condition 2.C(11) which, in part, required that certain programs be implemented prior to Davis-Besse entering the period of extended operation. These programs included the Boral Monitoring Program identified as Item 2 in Appendix A to NUREG-2193, "Safety Evaluation Report Related to the License Renewal of Davis-Besse Nuclear Station," Supplement 1 (ADAMS Accession No. ML16104A350). The purpose of this program is to monitor the neutron absorbing material (i.e., Boral) in the spent fuel pool for degradation to ensure that the assumptions of the spent fuel pool criticality analysis are met.

Request

Explain how FENOC will ensure that neutron absorber materials will continue to meet the assumptions of the spent fuel pool criticality analysis following the permanent cessation of operation.

**RAI 2**

Background

On April 22, 1977, the NRC issued an operating license for Davis-Besse in accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50. This operating license was renewed on December 8, 2015, in accordance with 10 CFR Part 54.

The licensee plans to permanently shut down Davis-Besse by May 31, 2020. In accordance with 10 CFR 50.82(a)(2), once a licensee has certified that it has permanently ceased operations and permanently removed fuel from the reactor vessel the 10 CFR Part 50 license no longer authorizes operation of the reactor or emplacement or retention of the fuel in the reactor vessel. The LAR proposes changes to the license to reflect the permanent shut down of the facility. These changes include removing the word “operating” from the Davis-Besse license when it appears in the following phrases: “renewed facility operating license” or “renewed operating license.” In addition, the licensee proposed to remove the word “renewed” from “renewed license” in paragraph 2.H of the license.

However, the licensee has not requested to change the form of the license. In addition, docketing of the certificates under 10 CFR 50.82(a)(2) does not change the form of the license. Therefore, with the proposed actions, Davis-Besse would continue to have a renewed facility operating license in accordance with 10 CFR Parts 50 and 54.

Therefore, the NRC staff does not plan to make changes to the license that would suggest the form of the license is changing. Specifically, the staff will retain the word “operating” in the Davis-Besse license when it appears in the following phrases: “renewed facility operating license” or “renewed operating license.” In addition, the staff will retain the word “renewed” in paragraph 2.H of the license.

#### Request

Confirm that it is acceptable to retain the word “operating” when it appears in the phrase “renewed facility operating license” or “renewed operating license” in the Davis-Besse license. Confirm that it is acceptable to retain the word “renewed” in paragraph 2.H of the license.

### **RAI 3**

#### Background

Paragraph 1.I of the Davis-Besse license provides the Commission’s finding that:

The receipt, possession, and use of source, byproduct and special nuclear material as authorized by this renewed license will be in accordance with the Commission’s regulations in 10 CFR Part 30, 40, and 70, including 10 CFR Sections 30.33, 40.32, 70.23, and 70.31[.]

The licensee requested to delete this finding because it is not dependent on the decommissioning of the facility. However, the LAR indicates that continued authorization to receive, possess, and use source, byproduct and special nuclear materials is desired. The NRC cannot authorize a licensee to receive, possess, and use source, byproduct, and special nuclear material if the staff is unable to make this finding. Therefore, the NRC staff plans to retain the finding in paragraph 1.I of the license.

#### Request

Confirm that it is acceptable to retain the finding in paragraph 1.I of the Davis-Besse license.

#### **RAI 4**

The LAR proposed to revise the finding in paragraph 1.J of the license by changing “period of extended operation” with “period of extended facility maintenance.” The “period of extended operation” is a term of art that is used throughout 10 CFR Part 54 that refers to the time period after the initial license would expire. The finding in paragraph 1.J was made by the NRC in accordance with 10 CFR 54.29, “Standards for issuance of a renewed license,” when the Davis-Besse operating license was renewed. The proposed “period of extended facility maintenance” does not appear in 10 CFR 50.54. Therefore, the NRC staff plans to retain the finding in paragraph 1.J as currently written (also see RAI 2).

#### Request

Confirm that it is acceptable to retain the finding in paragraph 1.J of the Davis-Besse license as currently written.

#### **RAI 5**

#### Background

Currently, paragraph 2.B.(4) of the Davis-Besse license states:

FENOC, pursuant to the Act and 10 CFR Parts 30, 40, and 70 to receive, possess and use at any time any byproduct, source and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;

The licensee proposed to revise paragraph 2.B.(4) to state:

FENOC, pursuant to the Act and 10 CFR Parts 30, 40, and 70 to receive, possess and use at any time any byproduct, source, or sealed sources for radiation monitoring equipment calibration and to possess any byproduct, source and special nuclear material as sealed neutron sources previously used for reactor startup and reactor instrumentation; and fission detectors;

The LAR provided the following basis for this proposed change:

The requirements regarding receipt of sealed neutron sources for reactor startup and nuclear instrumentation is proposed for deletion. This license condition is revised to reflect authorization only for continued possession of those sources used for reactor startups, produced as a byproduct, and those required for calibration. . . . The use of sources for radiation monitoring will continue to be required.

The proposed revision to paragraph 2.B.(4) is not clear and does not reflect the statements in the basis for the proposed change. For example, the proposed revision could be interpreted as permitting byproduct material in any form, source material in any form, or sealed sources with any type of material to be used for radiation monitoring equipment calibration. As another example, the revised paragraph lists “fission detectors” as a separate clause such that it is unclear what is being authorized.

Request

- A. Specify the type of material (e.g., source and byproduct material), the form of the material (e.g., as sealed sources), and the quantity of material (e.g., in amounts as required) that will be received, possessed, and used for radiation monitoring equipment calibration.
- B. Specify the type of material, the form of the material, and the quantity of material that will be possessed as fission detectors.
- C. Clarify whether continued authorization to receive and use these materials as fission detectors is required, or if the authorization will be limited to possession of these materials as fission detectors that were previously used for reactor operation.
- D. Provide justification for any proposed changes that would expand the current authorization in paragraph 2.B.(4) of the license.