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

January 4, 2017

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 – ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT RELATED TO LICENSE AMMENDMENT REQUEST TO REVISE TECHNICAL SPECIFICATION 5.5.3, "RADIOACTIVE EFFLUENT CONTROLS PROGRAM" (CAC NO. MF7351)

Dear Mr. Boles:

Enclosed is a copy of the Environmental Assessment and Finding of No Significant Impact related to your application for amendment dated February 9, 2016 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML16041A115). The proposed amendment would revise the technical specification requirements for limitations on the radioactive material released in liquid and gaseous effluents and the references for the radioactive material effluent requirements.

The enclosure is being forwarded to the Office of the Federal Register for publication.

Sincerely,

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

Docket No. 50-346

Enclosure:
Environmental Assessment

cc w/encl: Distribution via Listserv

ENCLOSURE

FEDERAL REGISTER NOTICE

[7590-01-P]

NUCLEAR REGULATORY COMMISSION

[Docket No. 50-346; NRC-20YY-XXXX]

FirstEnergy Nuclear Operating Company;

Davis-Besse Nuclear Power Station, Unit No. 1

AGENCY: Nuclear Regulatory Commission.

ACTION: Environmental assessment and finding of no significant impact; issuance.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) is considering issuance of an amendment to Renewed Facility Operating License No. NPF-3 for the Davis-Besse Nuclear Power Station, Unit No. 1 (Davis-Besse), as requested by FirstEnergy Nuclear Operating Company (FENOC, the licensee).

DATES: The environmental assessment referenced in this document is available on **[INSERT DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**.

ADDRESSES: Please refer to Docket ID <NRC-20YY-XXXX> when contacting the NRC about the availability of information regarding this document. You may obtain publicly available information related to this document using any of the following methods:

- **Federal Rulemaking Web site:** Go to http://www.regulations.gov and search for Docket ID <NRC-20YY-XXXX>. Address questions about NRC dockets to Carol Gallagher;

telephone: 301-415-3463; e-mail: Carol.Gallagher@nrc.gov. For technical questions, contact the individual listed in the FOR FURTHER INFORMATION CONTACT section of this document.

- **NRC's Agencywide Documents Access and Management System (ADAMS):** You may obtain publicly-available documents online in the ADAMS Public Documents collection at http://www.nrc.gov/reading-rm/adams.html. To begin the search, select "ADAMS Public Documents" and then select "Begin Web-based ADAMS Search." For problems with ADAMS, please contact the NRC's Public Document Room (PDR) reference staff at 1-800-397-4209, 301-415-4737, or by e-mail to pdr.resource@nrc.gov. The ADAMS accession number for each document referenced in this notice (if that document is available in ADAMS) is provided the first time that a document is referenced.

- **NRC's PDR:** You may examine and purchase copies of public documents at the NRC's PDR, Room O1-F21, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852.

FOR FURTHER INFORMATION CONTACT: Blake Purnell, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; telephone: 301-415-1380; e-mail: Blake.Purnell@nrc.gov.

SUPPLEMENTARY INFORMATION:

I. Introduction

The NRC is considering issuance of an amendment to Renewed Facility Operating License No. NPF-3, issued to FENOC, for Davis-Besse, located on the south-western shore of Lake Erie in Ottawa County, Ohio, approximately 21 miles east of Toledo, Ohio. The proposed amendment would revise Davis-Besse Technical Specification (TS) 5.5.3, "Radioactive Effluent Controls Program," to allow an increase in the instantaneous concentrations of radioactive

material released in liquid effluents and an increase in the instantaneous dose rates from radioactive material released in gaseous effluents. The licensee would continue to maintain the same TS and regulatory limitations on the overall level of effluent control at Davis-Besse, including limitations on the dose to a member of the public in an unrestricted area. In accordance with the National Environmental Policy Act of 1969, as amended (42 U.S.C. 4321 et seq.) and section 51.21 of title 10 of the *Code of Federal Regulations* (10 CFR), the NRC performed an environmental assessment. Based on the results of the environmental assessment that follows, the NRC has concluded that the proposed action will have no significant environmental impact, and is issuing a finding of no significant impact.

II. Environmental Assessment

Description of the Proposed Action

The proposed action would revise the radiological effluent controls program in Davis-Besse TS 5.5.3, specifically TS 5.5.3.b and TS 5.5.3.g, to be consistent with TS 5.5.4.b and TS 5.5.4.g, respectively, in NUREG-1430, "Standard Technical Specifications, Babcock and Wilcox Plants," Revision 4.0, published in April 2012 (ADAMS Accession No. ML12100A177). TS 5.5.4, "Radiological Effluent Controls Program," of NUREG-1430, Revision 4.0, contains guidance on the standard format and content of the TSs for the implementation of certain 10 CFR 50.36a requirements applicable to Davis-Besse. In June 1999, the NRC approved Technical Specification Task Force (TSTF) Traveler TSTF-258, Revision 4, "Changes to Section 5.0, Administrative Controls" (ADAMS Accession No. ML040620102), which included similar changes to the radioactive effluents control program to what the licensee has proposed. The changes in TSTF-258, Revision 4, were subsequently incorporated into NUREG-1430.

Davis-Besse TS 5.5.3.b provides limitations on the instantaneous concentrations of radioactive material in liquid effluents released to unrestricted areas. Currently, the licensee

may release liquid effluents with instantaneous radioactive material concentrations less than or equal to the average annual concentration values in 10 CFR part 20, Appendix B, Table 2, Column 2. The proposed change would allow the licensee to release liquid effluents with instantaneous radioactive material concentrations up to 10 times the annual average concentration values in 10 CFR part 20, Appendix B, Table 2, Column 2. The current limits are equivalent to a dose rate limit of 50 millirem (mrem) per year (approximately 0.0057 mrem per hour). The revised limits are equivalent to a dose rate limit of 500 mrem per year (approximately 0.057 mrem per hour).

Davis-Besse TS 5.5.3.g provides limitations on the instantaneous dose rate resulting from radioactive material released in gaseous effluent from the site. The licensee proposes to change the instantaneous dose rate limits in TS 5.5.3.g such that they are no longer based on the average annual effluent concentrations in air that are tabulated in 10 CFR part 20, Appendix B, Table 2, Column 1. The current limits correspond to a dose rate limit of 50 mrem (approximately 0.0057 mrem per hour) per year for inhalation of the gaseous effluent, or a dose rate limit of 100 mrem per year (approximately 0.011 mrem per hour) if submersion in the gaseous effluent (i.e., external dose) is more limiting.

For noble gases, the revised Davis-Besse TS 5.5.3.g would allow an increase in the instantaneous whole body external dose rate limit to 500 mrem per year (approximately 0.057 mrem per hour) and an increase in the instantaneous skin dose rate limit to 3000 mrem per year (approximately 0.34 mrem per hour). For iodine-131, iodine-133, tritium, and all radionuclides in particulate form with half-lives greater than 8 days, the revised Davis-Besse TS 5.5.3.g would establish an instantaneous organ dose rate limit of 1500 mrem per year (approximately 0.17 mrem per hour).

The proposed action is in accordance with the licensee's application dated February 9, 2016 (ADAMS Accession No. ML16041A115).

Need for the Proposed Action

The proposed action would provide the licensee with operational flexibility to temporarily increase the concentrations of radioactive material in gaseous and liquid effluents released from the site.

Environmental Impacts of the Proposed Action

The NRC has evaluated the proposed action and concludes that the proposed action will not significantly increase the probability or consequences of accidents. No changes are being made in the types of effluents that may be released offsite.

The licensee would still be required by Davis-Besse TS 5.5.3 to monitor, sample, and analyze gaseous and liquid effluents, and to determine the cumulative and projected dose contributions from radioactive effluents for the current calendar quarter and current calendar year at least every 31 days. The licensee must continue to meet the criteria in 10 CFR part 50, Appendix I, "Numerical Guides for Design Objectives and Limiting Conditions for Operation to Meet the Criterion 'As Low as is Reasonably Achievable' for Radioactive Material in Light-Water-Cooled Nuclear Power Reactor Effluents," which: (1) limit the annual public dose from liquid effluents to 3 mrem to the total body and 10 mrem to any organ, (2) limit the annual air dose due to gaseous effluents to 10 millirad for gamma radiation and 20 millirad for beta radiation, and (3) limit annual organ doses to members of the public to 15 mrem for iodines and particulates. The regulations in 10 CFR 20.1301 require the licensee to limit the dose to members of the public to 100 mrem total effective dose equivalent annually and 2 mrem in any 1 hour from external sources. The regulations in 40 CFR part 190 require the licensee to limit the annual dose to a member of the public to 25 mrem whole body, 75 mrem thyroid, and 25 mrem to any other organ. As stated above, the revised TSs would limit dose rates from instantaneous releases to substantially less than 1 mrem per hour.

Thus, the proposed action would allow an increase in the instantaneous concentrations of radioactive material released in liquid effluents and an increase in the instantaneous dose rates from radioactive material released in gaseous effluents, without allowing an increase in the dose limits to members of the public in unrestricted areas specified in 10 CFR 20.1301, Appendix I to 10 CFR part 50, and 40 CFR 190.

With regard to potential non-radiological impacts, the proposed action does not have any foreseeable impacts to land, air quality, or water resources, including impacts to biota. In addition, there are also no known socioeconomic or environmental justice impacts or impacts to historic and cultural resources associated with the proposed action. Therefore, there are no significant non-radiological environmental impacts associated with the proposed action.

Accordingly, the NRC concludes that there are no significant environmental impacts associated with the proposed action.

Environmental Impacts of the Alternatives to the Proposed Action

As an alternative to the proposed action, the NRC staff considered denial of the proposed action (i.e., the "no-action" alternative). Denial of the TS amendment request would result in no change in current environmental impacts. The environmental impacts of the proposed TS amendment request and the "no action" alternative are similar.

Alternative Use of Resources

The action does not involve the use of any different resources than those previously considered in the "Generic Environmental Impact Statement for License Renewal of Nuclear Plants [NUREG-1437], Supplement 52, Regarding Davis-Besse Nuclear Power Station, Final Report," Volumes 1 and 2, dated April 2015 (ADAMS Accession Nos. ML15112A098 and ML15113A187, respectively).

Agencies and Persons Consulted

The staff did not enter into consultation with any other Federal agency or with the State of Ohio regarding the environmental impact of the proposed action.

III. Finding of No Significant Impact

The licensee has requested an amendment to revise Davis-Besse TS 5.5.3 to provide operational flexibility by allowing an increase in the instantaneous concentrations of radioactive material released in liquid effluents and an increase in the instantaneous dose rates from radioactive material released in gaseous effluents. The licensee would continue to maintain the TS and regulatory limitations on the overall level of effluent control at Davis-Besse, including limitations on the dose to a member of the public in an unrestricted area. Based on the environmental assessment, the NRC concludes that the proposed action will not have a significant effect on the quality of the human environment. Accordingly, the NRC has determined not to prepare an environmental impact statement for the proposed action.

Dated at Rockville, Maryland, this 13th day of January 2017.

For the Nuclear Regulatory Commission.

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

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Blake Purnell, Project Manager
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