

July 29, 2004

Mr. Mark B. Bezilla
Vice President-Nuclear, Davis-Besse
FirstEnergy Nuclear Operating Company
Davis-Besse Nuclear Power Station
5501 North State Route 2
Oak Harbor, OH 43449-9760

SUBJECT: DAVIS-BESSE NUCLEAR POWER STATION, UNIT 1 (TAC NO. MC2185)

Dear Mr. Bezilla:

Enclosed is a copy of the Environmental Assessment and Finding of No Significant Impact related to your application for amendment of exemption dated February 13, 2004. The existing exemption requested to be amended is an exemption to Section 50.46 of Title 10 of the *Code of Federal Regulations* (10 CFR), "Acceptance Criteria for Emergency Core Cooling Systems for Light-Water Nuclear Power Reactors" and 10 CFR Part 50, Appendix K, "ECCS Evaluation Models," and was approved by the NRC by letter dated May 5, 2000 (ML003712264).

The amendment is proposed because you have made a plant modification which provides a new method for preventing boric acid precipitation following certain loss-of-coolant accidents. Additionally, if this new method is approved by the NRC, then one of the current methods would also be withdrawn as a credited method by the amendment to the exemption.

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

Sincerely,

/RA/

Jon B. Hopkins, Senior Project Manager
Project Directorate III, Section 2
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-346

Enclosure: Environmental Assessment

cc w/encl: See next page

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NAME	JHopkins	PCoates	JTappertw/comments	BPoole	AMendiola
DATE	7/21/04	7/1/04	6/23/04	7/27/04	07/29/04

OFFICIAL RECORD COPY

Davis-Besse Nuclear Power Station, Unit 1

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UNITED STATES NUCLEAR REGULATORY COMMISSIONFIRSTENERGY NUCLEAR OPERATING COMPANYDOCKET NO. 50-346DAVIS-BESSE NUCLEAR POWER STATIONENVIRONMENTAL ASSESSMENT AND FINDING OFNO SIGNIFICANT IMPACT

The U.S. Nuclear Regulatory Commission (NRC) is considering amending an exemption from (1) Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, Appendix K, Section I.D.1, which requires that accident evaluations use the combination of emergency core cooling system (ECCS) subsystems assumed to be operative “after the most damaging single failure of ECCS equipment has taken place;” and (2) requirements of 50.46(a)(1)(ii), for Facility Operating License No. NPF-3, issued to FirstEnergy Nuclear Operating Company (FENOC or the licensee), for operation of the Davis-Besse Nuclear Power Station (DBNPS), located in Ottawa County, Ohio. Therefore, as required by 10 CFR 51.21, the NRC is issuing this environmental assessment and finding of no significant impact.

ENVIRONMENTAL ASSESSMENTIdentification of the Proposed Action:

The original exemption issued on May 5, 2000, exempted the licensee from the single-failure requirement for the two systems for preventing boric acid precipitation during the long-term cooling phase following a loss-of-coolant accident (LOCA). Additionally, the action exempted the licensee from the calculation requirements of 50.46(b)(5) and Appendix K, Section I.A.4 for the second or backup system for preventing boric acid precipitation. The proposed action would amend the existing exemption by approving a new system to prevent boric acid precipitation. This new system would become the primary system and the current primary system would become the backup system. The current backup system would no longer be credited as part of the licensing basis, although it would remain as a third option

procedurally. As such, the part of the existing exemption related to the calculation requirements of 50.46(b)(5) and Appendix K, Section I.A.4 would be removed from the exemption as it only applied to the current backup system and is no longer needed.

The proposed action is in accordance with the licensee's application dated February 13, 2004.

The Need for the Proposed Action:

The proposed action provides a new active means of preventing boric acid precipitation within the reactor vessel core region following a LOCA. The new system has fewer vulnerabilities and meets calculation requirements without an exemption, unlike the system to be removed from the licensing basis.

Environmental Impacts of the Proposed Action:

The NRC has completed its evaluation of the proposed action and concludes that the proposed amended exemption would continue to satisfy the underlying purpose of 10 CFR 50.46 and 10 CFR Part 50, Appendix K. Additionally, the proposed action does not involve radioactive wastes, release of radioactive material into the atmosphere, solid radioactive waste, or liquid effluents released to the environment.

The DBNPS systems were evaluated in the Final Environmental Statement (FES) dated October 1975 (NUREG 75/097). The proposed amended exemption will not involve any change in the waste treatment systems described in the FES.

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 off site. There is no significant increase in the amount of any effluent released off site. There is no significant increase in occupational or public radiation exposure. Therefore, there are no significant radiological environmental impacts associated with the proposed action.

With regard to potential non-radiological impacts, the proposed action does not have a potential to affect any historic sites. It does not affect non-radiological plant effluents and has

no other environmental impact. 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 staff considered denial of the proposed action (i.e., the “no-action” alternative). Denial of the application would result in no change in current environmental impacts. The environmental impacts of the proposed action and the alternative action are similar.

Alternative Use of Resources:

The action does not involve the use of any different resources than those previously considered in the Final Environmental Statement for DBNPS, NUREG 75/097, dated October 1975.

Agencies and Persons Consulted:

On May 25, 2004, the staff consulted with the Ohio State official, C. O’Claire of the Ohio Emergency Management Agency, regarding the environmental impact of the proposed action. The State official had no comments.

FINDING OF NO SIGNIFICANT IMPACT

On the basis of 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.

For further details with respect to the proposed action, see the licensee’s letter dated February 13, 2004 (ADAMS ML040490242), and the existing exemption approved by NRC letter dated May 5, 2000 (ADAMS ML003712264). Documents may be examined, and/or copied for a fee, at the NRC’s Public Document Room (PDR), located at One White Flint North,

11555 Rockville Pike (first floor), Rockville, Maryland. Publicly available records will be accessible electronically from the Agencywide Documents Access and Management System (ADAMS) Public Electronic Reading Room on the NRC Web site, <http://www.nrc.gov/reading-rm/adams.html>. Persons who do not have access to ADAMS or who encounter problems in accessing the documents located in ADAMS, should contact the NRC PDR Reference staff by telephone at 1-800-397-4209 or 301-415-4737, or send an e-mail to pdr@nrc.gov.

Dated at Rockville, Maryland, this 29th day of July 2004.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Jon B. Hopkins, Senior Project Manager
Project Directorate III, Section 2
Division of Licensing Project Management
Office of Nuclear Reactor Regulation