



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

December 1, 2015

John W. Stetkar, Chairman
Advisory Committee on Reactor Safeguards
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

SUBJECT: RESPONSE TO THE ADVISORY COMMITTEE ON REACTOR SAFEGUARDS
REPORT ON THE SAFETY ASPECTS OF THE LICENSE RENEWAL
APPLICATION FOR DAVIS-BESSE NUCLEAR POWER STATION, UNIT 1

Dear Mr. Stetkar:

During the 629th meeting of the Advisory Committee on Reactor Safeguards (ACRS) held November 4-7, 2015, the Committee completed its review of the license renewal application (LRA) for Davis-Besse Nuclear Power Station, Unit 1. The Committee also reviewed the U.S. Nuclear Regulatory Commission (NRC) staff's associated final safety evaluation report for this application.

The NRC staff appreciates the Committee's objective and in-depth review of the Davis-Besse license renewal application and final safety evaluation report under the requirements of 10 CFR Part 54, "Requirements for Renewal of Operating License for Nuclear Power Plants." In the Committee's final report (Agencywide Documents Access and Management System (ADAMS) Accession No. ML15316A125), dated November 12, 2015, it concurred with the NRC staff's conclusion on the Davis-Besse, Unit 1 license renewal. Both the Committee and the NRC staff believe that the licensee, FirstEnergy Nuclear Operating Company (FENOC), has demonstrated that it will adequately manage the effects of aging and maintain intended functions consistent with the current licensing basis for the period of extended operation (as required by 10 CFR 54.21(a)(3)). The Committee further concurs with the NRC staff that there are no open license renewal issues related to 10 CFR 54.29(a)(1) or 10 CFR 54.29(a)(2) that would prevent the NRC from renewing the Davis-Besse operating license.

In accordance with the Atomic Energy Act of 1954, as amended, the Committee has statutory responsibilities to review and advise the Commission on the licensing and operation of production and utilization facilities and related safety issues. Under this statutory authority, the Committee conducted a thorough and in-depth review of the methodologies that FENOC used to analyze cracking effects that could impact the intended design function of the shield building under design basis loadings, including seismic events. Based on its independent review, the Committee concluded on the basis of the results of the analysis methodologies used by FENOC that adequate margin exists such that the shield building remains capable of performing its intended functions. The staff position is consistent with this conclusion (as documented in Inspection Reports (IR) 05000346/2012009 and 05000346/2014008). The Committee further indicated that the shield building monitoring aging management program, as described in LRA Amendment No. 60, is sufficient to prevent loss of intended functions due to potential growth of

the shield building cracking effects in accordance with the current licensing basis for the period of extended operation. In its final report, the Committee expressed the importance of the NRC staff's review and approval of the methodologies used to analyze the effects of concrete cracking in the shield building (cracking effects analysis methodologies) as an amendment to Davis-Besse's current license. The staff agrees with the importance of addressing this current licensing basis issue related to laminar cracking of the shield building under 10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities," and notes that the cracking effects analysis issue is currently being addressed by the staff under the NRC Enforcement Policy. Specifically, the staff issued a Severity Level IV non-cited violation of 10 CFR 50.59(c)(2) and an associated Green finding in IR 05000346/2014008 (ADAMS Accession No. ML15148A489) in May 2015 for FENOC's failure to request and obtain a license amendment under the regulations of 10 CFR 50.90. At this time, FENOC is expected to submit a license amendment to address this issue. However, the staff review of an amendment to the license addressing cracking effects analysis methodologies may not be completed prior to commencement of the period of extended operation. Since it is a current operating issue, review and approval of the cracking effects analysis methodologies will be conducted by staff as part of normal licensing activity under 10 CFR Part 50 and corrective action for the violation is to be reviewed by inspectors as part of the Reactor Oversight Program. Therefore, addressing these current operational activities does not preclude license renewal, and the staff is not conditioning the license renewal as suggested in item two of the Committee's final letter.

The NRC staff acknowledged the insights provided by the ACRS during the Subcommittee Meeting held on September 23, 2015, regarding recommended improvements to the Davis-Besse shield building monitoring program. On October 6, 2015, FENOC submitted revisions to the shield building monitoring program. The revisions, evaluated by the staff, include enhancements to the method of monitoring the areal extent of laminar cracking to require impulse response mapping, in addition to visual inspections of the cracks themselves using core bores perpendicular to the building exterior wall.

The NRC staff recognizes and appreciates the Committee's commitment to safety and appreciates its continued support of the license renewal process.

Sincerely,

/RA/

Victor M. McCree
Executive Director
for Operations

cc: Chairman Burns
Commissioner Svinicki
Commissioner Ostendorff
Commissioner Baran
SECY

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Sincerely,
 /RA/
 Victor M. McCree
 Executive Director
 for Operations

cc: Chairman Burns
 Commissioner Svinicki
 Commissioner Ostendorff
 Commissioner Baran
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See next page

ADAMS Accession Nos. ML15307A154 (Package); ML15316A125 (Incoming); ML15307A191 (Outgoing)

* concurred via e-mail

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Letter to J. Stetkar from V. McCree dated December X, 2015

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