

# UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

April 2, 2012

LICENSEE: FirstEnergy Nuclear Operating Company

FACILITY: Davis-Besse Nuclear Power Station

SUBJECT: SUMMARY OF TELEPHONE CONFERENCE CALL HELD ON

FEBRUARY 9, 2012, BETWEEN THE U.S. NUCLEAR REGULATORY COMMISSION AND FIRSTENERGY NUCLEAR OPERATING COMPANY, CONCERNING REQUESTS FOR ADDITIONAL INFORMATION PERTAINING TO THE DAVIS-BESSE NUCLEAR POWER STATION, LICENSE RENEWAL

APPLICATION (TAC. NO. ME4640)

The U.S. Nuclear Regulatory Commission (NRC or the staff) and representatives of FirstEnergy Nuclear Operating Company (FENOC or the applicant) held a telephone conference call on February 9, 2012, to discuss and clarify the staff's concerns related to the Davis-Besse license renewal application.

Enclosure 1 provides a listing of the participants and Enclosure 2 contains a description of the staff concerns discussed with the applicant. A brief description on the status of the items is also included.

The applicant had an opportunity to comment on this summary.

Samuel Cuadrado de Jesús, Project Manager

Projects Branch 1

Division of License Renewal

Office of Nuclear Reactor Regulation

Docket No. 50-346

Enclosures:

1. List of Participants

2. List of Requests for Additional Information

cc w/encls: Listserv

# SUMMARY OF TELEPHONE CONFERENCE CALL DAVIS-BESSE LICENSE RENEWAL APPLICATION

# LIST OF PARTICIPANTS February 9, 2012

PARTICIPANTS AFFILIATIONS

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# SUMMARY OF TELEPHONE CONFERENCE CALL DAVIS-BESSE LICENSE RENEWAL APPLICATION February 9, 2012

The U.S. Nuclear Regulatory Commission (NRC or the staff) and representatives of FirstEnergy Nuclear Operating Company (FENOC or the applicant) held a telephone conference call on February 9, 2012, to discuss and clarify the following concerns related to the Davis-Besse license renewal application (LRA).

## LRA Section 4.2.1 Neutron Fluence

#### Discussion:

The staff noted that in LRA Section 4.2.1 neutron fluence is dispositioned as "not a TLAA." The staff stated that it's position is that neutron fluence is a time-limited aging analysis (TLAA).

The applicant stated that it will change the LRA to disposition the neutron fluence evaluation as a TLAA using 10 CFR 54.21(c)(1)(ii).

**Action:** The applicant will update the LRA to disposition neutron fluence as a TLAA.

# LRA Section 4.2.2 Upper Shelf Energy (USE)

#### Discussion:

The staff's position is that the Upper Shelf Energy (USE) evaluation for the Linde 80 welds should be based on a more conservative value than the average of 70 ft-lb (mean value with a standard deviation of 5.6, minimum value of 64 ft-lb and maximum value of 81 ft-lb) unirradiated USE.

The applicant agreed to reevaluate the Linde 80 welds using an unirradiated USE value less than 70 ft-lb or provide a basis to use an unirradiated value of 70 ft-lb. The applicant will revise LRA Section A.2.2.2 accordingly. In addition the applicant agreed to revise LRA Section A.2.2.2 for consistency with the previously provided response to the staff's request for additional information (RAI) 4.2.2-2.

**Action:** The applicant will reevaluate the Linde 80 welds and revise LRA Section A.2.2.2 accordingly.

## Section 4.2.4 Pressure-Temperature Limits

#### Discussion:

The staff stated that it needed clarification on how the fluence values were obtained at 1/4T and 3/4T for the reactor vessel (RV) nozzles and associated welds.

The applicant provided an explanation of the fluence evaluation methodology for the subject location and that this methodology included adding the attenuation from both the inside and outside surfaces.

After some discussion, the staff indicated that it will need to review this issue further to understand the methodology on the use of inner and outer surfaces fluence to project the 52 effective full power years (EFPY) adjusted reference temperature (ART) value for this location.

# Section 4.2.6 Intergranular Separation (Underclad Cracking)

#### Discussion:

The staff asked the applicant if it has plans to update the updated safety analysis report Supplement (LRA Section A) in order to reflect their recent RV head replacement.

The applicant stated that it will change the LRA (Sections A.2.2.6, 4.2.6 and B.2.29) to acknowledge that the RV head was replaced in the fall of 2011.

**Action:** The applicant will revise the LRA.

#### Section 4.3.2.2.2 Reactor Vessel Internals (RVI) Low-Cycle Fatigue

#### Discussion:

The staff wanted to know if an aging effect of cracking due to fatigue was identified and managed in the LRA for the RVI Alloy A-286 original bolts.

The applicant responded that for the replacement RVI Alloy X-750 HTH bolts, aging management review (AMR) rows are provided in the LRA (Table 3.1.2-2) for cumulative fatigue damage/TLAA. However, for the RVI Alloy X-750 HTH replacement bolts and for the RVI Alloy A-286 original bolts, AMR rows are not provided for the aging effect of cracking due to fatigue. The applicant noted that this approach is consistent with the industry guidance in MRP-227-A and the associated safety evaluation where, for the subject bolts, cracking due to fatigue is not shown as an aging effect requiring management.

The staff indicated that it will review this issue and may need further discussion with the applicant at a later time.

There was no further discussion, and the call was concluded.

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RidsNrrDlrRerb Resource

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BHarris, OGC

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#### /RA/

Samuel Cuadrado de Jesús, Project Manager Projects Branch 1 Division of License Renewal Office of Nuclear Reactor Regulation

Docket No. 50-346

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