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May 30, 2012

L-12-211

Mr. Charles A. Casto, Administrator
United States Nuclear Regulatory Commission
Region III
2443 Warrenville Road, Suite 210
Lisle, IL 60532-4352

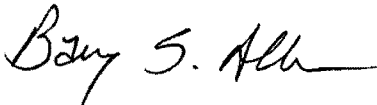
SUBJECT:

Davis-Besse Nuclear Power Station, Unit 1
Docket Number 50-346, License Number NPF-3
Completion of Actions Required by Confirmatory Action Letter 3-11-001

The purpose of this letter is to document completion of the actions taken by the FirstEnergy Nuclear Operating Company (FENOC) in response to Confirmatory Action Letter 3-11-001, dated December 2, 2011 (ADAMS Accession No. ML11336A355). This Confirmatory Action letter documented commitments agreed upon between FENOC and the Nuclear Regulatory Commission (NRC) in response to the identification of cracks in the reinforced concrete shield building at the Davis-Besse Nuclear Power Station (DBNPS). These cracks, which did not affect the shield building's capability of performing its safety functions, were identified while creating an opening in the shield building to replace the Reactor Pressure Vessel Head during the plant outage that began on October 1, 2011. Completion of the individual commitments is described in the Attachment.

There are no regulatory commitments contained in this letter. If there are any questions or if additional information is required, please contact Mr. Patrick J. McCloskey, Manager, Site Regulatory Compliance, at (419) 321-7274.

Sincerely,



Barry S. Allen

GMW

Attachment: Completion of Actions Required by Confirmatory Action Letter for the
Davis-Besse Nuclear Power Station

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cc: NRC Document Control Desk
DB-1 NRC/NRR Project Manager
DB-1 Senior Resident Inspector
Utility Radiological Safety Board

Attachment
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Completion of Actions Required by Confirmatory Action Letter for the
Davis-Besse Nuclear Power Station

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The purpose of this letter is to document completion of the actions taken by the FirstEnergy Nuclear Operating Company (FENOC) in response to the Confirmatory Action Letter 3-11-001 dated December 2, 2011 (ADAMS Accession No. ML11336A355). This Confirmatory Action letter documented commitments agreed upon between FENOC and the Nuclear Regulatory Commission (NRC) in response to the identification of cracks in the reinforced concrete shield building at the Davis-Besse Nuclear Power Station (DBNPS). The individual commitments are listed below along with the actions taken to complete these commitments.

- 1. Provide the results of the root cause evaluation and corrective actions to the NRC, including any long-term monitoring requirements, by February 28, 2012.**

Actions Taken

On February 27, 2012, FENOC provided, via letter L-12-065, the Root Cause Analysis Report of the DBNPS Shield Building cracks, which included corrective actions being taken along with long-term monitoring requirements. On May 16, 2012, FENOC provided, via letter L-12-205, Revision 1 of the Root Cause Analysis Report that incorporated observations on the Root Cause Analysis Report from on-site NRC inspection activities following submittal of the initial report.

- 2. Identify four shield building locations, which were core bored during this evaluation, for examination. These uncracked locations will be directly adjacent to locations that have been confirmed to be cracked. The four uncracked locations, as designated on FENOC drawing C-111A, are:**
 - a. adjacent to a flute shoulder [S9-666.0-12];**
 - b. in a flute area [F4-1-666.0-3];**
 - c. adjacent to Main Steam Line penetration 39 [S7-652.0-6.5]; and**
 - d. adjacent to Main Steam Line penetration 40 [S9-650.0-9].**

Actions Taken

These four shield building locations were initially identified in letter L-11-353, dated November 23, 2011, "Documentation of Commitments for the Davis-Besse Nuclear Power Station, Unit 1," and confirmed via Confirmatory Action Letter 3-11-001, dated December 2, 2011. No further actions were necessary.

3. **Examine the four core bore locations from Commitment 2 above with a borescope to verify cracking has not migrated to these core bores located in solid (i.e., uncracked) concrete, within 90 days following plant restart (Mode 2) from the 2011 mid-cycle outage.**

Actions Taken

The four core bore locations were inspected on February 16, 2012, with a boroscope per procedure EN-DP-01512, "Shield Building Concrete Examination." No crack migration was identified.

4. **Examine the crack interface to identify any changes by performing a core bore in a known crack area within the Main Steam Line Room, within 90 days following plant restart (Mode 2) from the October 2011 mid-cycle outage.**

Actions Taken

A core bore of the shield building wall was performed in the Main Steam Line Room in a known crack area on February 16, 2012. The core bore was approximately two feet away from an existing core bore also known to be cracked, and the cracking in the area of this core bore was confirmed by Impulse Response Testing. The core and bore were examined by engineering in conjunction with Construction Technologies Laboratories (CTL). Cracking was identified with an estimated width of 0.010 inches. The cracking identified was as expected, and consistent with the general condition as well as the existing crack in the nearby core bore.

5. **Identify two additional shield building locations, which were core bored during this evaluation, for examination. These uncracked locations will be directly adjacent to locations that have been confirmed to be cracked. The two uncracked locations, as designated on FENOC drawing C-111A, are:**

- a. **in a flute area [F5-777.0-4]; and**
- b. **adjacent to a flute shoulder [S2-783.5-4.0].**

Actions Taken

These two additional shield building locations were initially identified in letter L-11-353, dated November 23, 2011, "Documentation of Commitments for the Davis-Besse Nuclear Power Station, Unit 1," and confirmed via Confirmatory Action Letter 3-11-001, dated December 2, 2011. No further actions were necessary.

6. **FENOC will examine the four core bore locations from Commitment 2 along with the two core bore locations from Commitment 5 with a borescope to verify cracking has not migrated to these core bores located in solid (i.e., uncracked) concrete, during the seventeenth refueling outage currently scheduled to commence in 2012.**

Actions Taken

The six core bore locations were inspected in May 2012 during the Seventeenth Refueling Outage with a borescope per procedure EN-DP-01512. No cracks were identified in these locations.

7. **FENOC will examine the crack interface to identify any changes by examining either existing core bore locations with known cracks, or by performing a core bore in a similar area:**
 - a. **adjacent to a flute shoulder [S9-666.0-11];**
 - b. **near the top of the shield building [S9-785-22.5]; and**
 - c. **adjacent to Main Steam Line penetration [core bore from Commitment 4].**

during the seventeenth refueling outage currently scheduled to commence in 2012.

Actions Taken

The three existing core bore locations were inspected in May 2012 during the Seventeenth Refueling Outage with a borescope per procedure EN-DP-01512. No discernable changes from the previously identified conditions were identified.