



NRC NEWS

U.S. NUCLEAR REGULATORY COMMISSION

Office of Public Affairs Region III

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NRC CONCLUDES DAVIS-BESSE NUCLEAR PLANT SAFE TO RESTART AND ISSUES CONFIRMATORY ACTION LETTER

The U.S. Nuclear Regulatory Commission has determined that the operators of the Davis-Besse nuclear power plant, FirstEnergy Nuclear Operating Corp. (FENOC) have provided reasonable assurance that the shield building is capable of performing its safety functions and that the utility can proceed with restarting the plant. The NRC's independent assessment evaluated a wide range of information such as technical details ranging from the size of the cracks, the utility's sampling and testing of the concrete in the building to determine the extent of the cracks, and its structural analysis. The plant is located in Oak Harbor, Ohio about 40 miles southeast of Toledo.

The NRC will hold a public meeting in which FENOC will discuss their technical analysis and explain why the plant is safe to continue to operate with the cracks in the shield building. The meeting will take place in the near future with details to be issued once finalized.

However, the NRC has issued a Confirmatory Action Letter (CAL-attached) to the operator of the plant, FENOC. The CAL details and confirms FENOC's agreement to take certain actions to monitor and ensure the cracks in the shield building continue to not adversely impact safety going forward. The NRC will review and evaluate FENOC's actions in response to the CAL in order to make sure they are thorough and complete.

The FENOC commitments to the NRC include:

- Determine and provide the root cause of the cracks in the shield building, corrective actions, and develop a long-term monitoring program.
- Select multiple areas in the shield building that have no cracks but are adjacent to known cracks to determine whether the area of the cracks has spread.
- Perform additional analysis in known cracked areas to determine whether the width of the cracks has increased.

Even though the NRC has concluded the shield building can perform its safety functions, the NRC will continue to inspect whether the shield building in its current condition meets all design requirements in the plant's license.

Failure to meet the commitments in the CAL may result in additional regulatory action if the utility does not provide reasonable assurance that the NRC can rely on the FENOC to meet the NRC's requirements and protect public health and safety.

On Oct. 10 the NRC was informed by FENOC that while conducting work to replace the Davis-Besse reactor vessel head its workers identified cracks in the shield building. The shield building is a 2.5 foot thick reinforced concrete building that surrounds a 1.5 inch thick steel containment vessel that encloses the reactor. The two buildings are separated by a 4.5 foot space.

The NRC will issue an inspection report documenting its review of this issue and the agency's conclusions 45 days after the inspection is complete.

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**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

REGION III
2443 WARRENVILLE ROAD, SUITE 210
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December 2, 2011

CAL No. 3-11-001

Mr. Barry Allen
Site Vice President
FirstEnergy Nuclear Operating Company
Davis-Besse Nuclear Power Station
5501 North State Route 2, Mail Stop A-DB-3080
Oak Harbor, OH 43449-9760

**SUBJECT: CONFIRMATORY ACTION LETTER - DAVIS-BESSE NUCLEAR
POWER STATION**

Dear Mr. Allen:

This letter confirms commitments by FirstEnergy Nuclear Operating Company (FENOC) regarding the identification of cracks in the reinforced concrete shield building at the Davis-Besse Nuclear Power Station. During the recent mid-cycle outage to replace the reactor vessel closure head, which began on October 1, 2011, FENOC discovered laminar cracking in the safety-related shield building of the containment system while performing hydrodemolition operations. Based on an evaluation of FENOC's extent of condition and technical analysis of the Davis-Besse shield building laminar cracking, the NRC staff concluded that FENOC provided reasonable assurance that the shield building is capable of performing its safety functions. In order to provide continued long-term confidence, FENOC has agreed in telephone conversations between you, Steven West, and Steven Reynolds, on November 21, 2011; a followup telephone conversation between you and Jamnes Cameron on November 22, 2011; in a FENOC commitment letter dated November 23, 2011 (ML11329A033); and a telephone conversation between you and Steven Reynolds on December 2, 2011, to the following actions (both completed and planned):

1. FENOC will provide the results of the root cause evaluation and corrective actions to the NRC, including any long-term monitoring requirements, by February 28, 2012.
2. FENOC will 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].

3. FENOC will 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.
4. FENOC will 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.
5. FENOC will 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].
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.
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.

Pursuant to Section 182 of the Atomic Energy Act, 42 U.S.C. 2232, you are required to:

- 1) Notify me immediately if your understanding differs from that set forth above;
- 2) Notify me if for any reason you cannot complete the actions and commitments within the specified schedule and advise me in writing of your modified schedule in advance of the change; and
- 3) Notify me in writing when you have completed the actions and commitments addressed in this Confirmatory Action Letter.

Issuance of this Confirmatory Action Letter does not preclude issuance of an Order formalizing the above commitments or requiring other actions on the part of FENOC, nor does it

preclude the NRC from taking enforcement action for violations of NRC requirements that may have prompted the issuance of this letter. Failure to meet the commitments in this Confirmatory Action Letter may result in an Order if FENOC's performance, as demonstrated by the failure to meet any Confirmatory Action Letter commitments, does not provide reasonable assurance that the NRC can rely on FENOC to meet the NRC's requirements and protect public health and safety or the common defense and security.

You should also be aware that while the NRC staff concluded that FENOC provided reasonable assurance that the shield building remains capable of performing its safety functions, NRC staff continues to evaluate whether the shield building (in its current condition) conforms to the design code requirements identified in the plant's licensing basis.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response (if any), will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records System (PARS) component of NRC's Agencywide Documents Access and Management System (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

To the extent possible, your response should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the public without redaction. If personal privacy or proprietary information is necessary to provide an acceptable response, then please provide a bracketed copy of your response that identifies the information that should be protected and a redacted copy of your response that deletes such information. If you request withholding of such material, you must specifically identify the portions of your response that you seek to have withheld and provide in detail the bases for your claim of withholding (e.g., explain why the disclosure of information will create an unwarranted invasion of personal privacy or provide the information required by 10 CFR 2.390(b) to support a request for withholding confidential commercial or financial information). If safeguards information is necessary to provide an acceptable response, please provide the level of protection described in 10 CFR 73.21.

Sincerely,



Cynthia D. Pederson
Acting Regional Administrator

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