

August 16, 2002

Mr. Lew W. Myers
Chief Operating Officer
FirstEnergy Nuclear Operating Company
Davis-Besse Nuclear Power Station
5501 North State Route 2
Oak Harbor, OH 43449-9760

Dear Mr. Myers:

By letter dated April 24, 2002, David Lochbaum submitted, on behalf of multiple organizations, a petition pursuant to Title 10 of the *Code of Federal Regulations*, Section 2.206 of the Commission's regulations with respect to Davis-Besse. The petition has been reviewed by the NRC staff, and the staff's proposed Director's Decision on the petition is enclosed. I request that you provide comments to me on any portions of the decision that you believe involve errors or any issues in the petition that you believe have not been fully addressed. The staff is making a similar request of the petitioner. The staff will then review any comments provided by you and the petitioner and consider them in the final version of the Director's Decision with no further opportunity to comment.

Please provide your comments by August 30, 2002.

Sincerely,

/RA/

John A. Zwolinski, Director
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-346

Enclosure: Proposed Director's Decision

cc w/encl: See next page

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UNITED STATES OF AMERICA
 NUCLEAR REGULATORY COMMISSION
 OFFICE OF NUCLEAR REACTOR REGULATION

Samuel J. Collins, Director

| | | |
|---|---|-------------------|
| In the Matter of |) | Docket No. 50-346 |
| |) | |
| FirstEnergy Nuclear Operating Company |) | License No. NPF-3 |
| |) | |
| |) | |
| (Davis-Besse Nuclear Power Station, Unit 1) |) | |
| |) | |

DIRECTOR'S DECISION UNDER 10 CFR 2.206

I. Introduction

By letter dated April 24, 2002, David Lochbaum, on behalf of multiple organizations, filed a Petition pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) Section 2.206. The Petitioners requested that the U.S. Nuclear Regulatory Commission (NRC) take the following action: to issue an Order to FirstEnergy Nuclear Operating Company (the licensee), the owner of the Davis-Besse Nuclear Power Station, Unit 1 (Davis-Besse), requiring a Verification by an Independent Party (VIP) for issues related to the reactor pressure vessel (RPV) head degradation problem. The basis for the request was that the Order issued by the NRC on August 14, 1996, to Northeast Nuclear Energy Company, the owner of the Millstone Nuclear Power Station, is a recent and relevant precedent for the action requested by the Petitioners.

The Petitioners met by teleconference with the Office of Nuclear Reactor Regulation (NRR) Petition Review Board on May 9, 2002, to clarify the bases for the Petition. The transcript of this meeting was treated as a supplement to the Petition and is available in ADAMS under Accession Number ML021490065 for inspection at the Commission's Public

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Document Room (PDR), located at One White Flint North, 11555 Rockville Pike (first floor), Rockville, Maryland. Publicly available records are accessible from the 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, 301-415-4737, or by e-mail to pdr@nrc.gov.

The licensee responded to the Petition on May 16, 2002, and the information provided was considered by the staff in its evaluation of the Petition. A copy of the licensee's response is publicly available in ADAMS under Accession Number ML021410451.

In a letter dated June 4, 2002, the NRC informed the Petitioners that the issues in the Petition were being accepted for review under 10 CFR 2.206 and have been referred to NRR for appropriate action. A copy of the acknowledgment letter is publicly available in ADAMS under Accession Number ML021370030.

The NRC sent a copy of the proposed Director's Decision to the Petitioners and to the licensee for comment on [date]. [The Petitioners responded with comments on [date] and the licensee(s) responded on [date]. The comments and the NRC staff's response to them are included in the Director's Decision.] OR [The staff did not receive any comments on the proposed Director's Decision.]

II. Discussion

As a result of the licensee's identification of extensive degradation to the pressure boundary material of the RPV head, the NRC dispatched an Augmented Inspection Team (AIT) to Davis-Besse on March 12, 2002, and issued a Confirmatory Action Letter (CAL) to the licensee on March 13, 2002, related to commitments for activities to evaluate and resolve the RPV head degradation issue. At the time of the Petitioner's request for enforcement-related

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action on April 24, 2002, the NRC was still assessing the issue and developing a comprehensive plan for reviewing the broader aspects of the licensee's performance.

In their request for a VIP, the Petitioners stated that "independent programs serve both to verify the adequacy of plant owner performance and to reassure the public that all reasonable safety measures have been taken." The Petitioners further stated that conditions at Davis-Besse warranted such verification and reassurance.

Pursuant to 10 CFR 2.206, the Petitioners requested an enforcement-related action, that the NRC issue an Order to the licensee requiring a VIP for issues related to the RPV head degradation and that the VIP be tasked with the following:

1. Verifying the adequacy of the problem identification and resolution (PIR) process.
2. Verifying the root cause evaluation prepared by the licensee for the damage to the RPV head.
3. Verifying that the long-term accumulation of boric acid within the reactor containment did not impair the function of safety-related systems, structures, and components (SSCs).
4. Verifying that the licensee has taken appropriate actions in response to NRC generic communications.
5. Verifying that the licensee has not deferred other plant modifications without appropriate justification.
6. Verifying that all entities responsible for safety reviews (e.g., Quality Assurance, INPO, the nuclear insurer, the plant operating review committee, the offsite safety review committee, etc.) are properly in the loop and functioning adequately.
7. Documenting its work in a publicly available report.
8. Presenting its conclusions to the NRC in a public meeting conducted near the plant site.

Subsequent to April 24, 2002, the NRC took several actions. On May 3, 2002, the NRC formed the Davis-Besse Inspection Manual Chapter (IMC) 0350 Oversight Panel and issued its Charter and Process Plan. On May 15, 2002, the NRC formed the Davis-Besse Reactor Vessel

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Head Degradation Lessons-Learned Task Force (LLTF) and issued its Charter. Also on May 15, 2002, the NRC issued a revised CAL to the licensee to address the option of replacing the existing RPV head, which the licensee has decided to pursue in lieu of repairing the damaged head. On July 3, 2002, and on July 25, 2002, the NRC revised the charter for the IMC 0350 Oversight Panel to reflect changes in its membership. These actions represent a significant and comprehensive NRC response to the RPV head degradation issue, a response that was not yet implemented at the time of the April 24, 2002, Petition.

Subsequent to April 24, 2002, the licensee also took several actions to provide for independent verification to address the concerns raised in the Petition, which were described in their May 16, 2002, response to the Petition. The licensee has established a Restart Station Review Board, which includes independent industry experts, to evaluate the effectiveness of their actions in response to the RPV head degradation and the root cause analysis, and to ensure that any management issues are fully developed and addressed prior to startup. The licensee has established an Engineering Assessment Board, which includes senior industry engineering professionals to review engineering products and programs. In addition, the licensee is taking actions to address each of the issues identified in the Petition. On May 21, 2002, the licensee submitted to the NRC a Return to Service Plan describing the course of action for Davis-Besse's safe and reliable return to service, and a revision to this plan was submitted on July 12, 2002. Copies of these documents are publicly available in ADAMS under Accession Numbers ML021430429 and ML022030464, respectively. The licensee has also established a Restart Overview Panel, which includes several external industry executives and the local Ottawa County Administrator to provide overall oversight of the implementation of the Return to Service Plan submitted to the NRC. The evaluations and corrective actions of the

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licensee and the industry are being discussed in routine public meetings and are also being evaluated by the NRC's Oversight Panel pursuant to IMC 0350.

It should be noted that the NRC staff shares the Petitioners' concerns about verifying the adequacy of plant owner performance and reassuring the public that all reasonable safety measures have been taken. Each of the Petitioners' proposed tasks for the requested VIP were carefully compared with the charters of the IMC 0350 Oversight Panel and LLTF to ensure that they were being adequately addressed by at least one or both of these efforts. Both teams have held meetings to discuss their charters and receive input from the public to ensure that concerns such as those identified by the Petitioners are being addressed. The staff has concluded that the Petitioners' concerns are valid and are within the scope of the actions being implemented by the NRC.

IMC 0350 provides regulatory guidelines to be followed when a power reactor licensee plans to restart the reactor after the plant has been shut down as a result of significant performance problems or events. The applicability of IMC 0350 is sufficiently broad to address the Petitioners' concerns. The overall objective of the IMC 0350 Oversight Panel is to provide the required oversight throughout the shutdown and restart to ensure that appropriate regulatory and licensee actions are implemented and the technical issues resolved before the plant would be allowed to restart and operate safely in accordance with the NRC rules and requirements, and that there is reasonable assurance for the protection of public health and safety. The IMC 0350 Oversight Panel will continue to hold public meetings periodically with the licensee's representatives to review the status of activities associated with RPV head degradation issues. These meetings will normally be held in the vicinity of the Davis-Besse plant and all work documented in publicly available reports. In addition, the IMC 0350 Oversight Panel issued a Restart Checklist on [Date] which is the list of issues that require resolution

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before restart. The inspections conducted under the direction of the IMC 0350 Oversight Panel will assess the adequacy of the licensee's Return to Service activities and include independent confirmatory evaluation of the areas of concern expressed by the Petitioners.

The NRC created the LLTF to conduct an independent evaluation of the NRC staff's regulatory processes related to assuring RPV head integrity in order to identify and recommend areas for improvement applicable to the NRC. The LLTF team consists primarily of NRC managers and staff who are not routinely associated with Davis-Besse and the scope of subjects to be considered by them include: Reactor Oversight Process Issues, Regulatory Process Issues, Research Activities, International Practices, and Generic Issue Processes. The LLTF will periodically brief NRC senior managers and provide a written report documenting its observations, conclusions, and recommendations.

As the basis for their request for enforcement-related action, the Petitioners cite as a recent and relevant precedent the August 14, 1996, Confirmatory Order issued to Northeast Nuclear Energy Company establishing an Independent Corrective Action Verification Program at Millstone Nuclear Power Station, Units 1, 2, and 3 (Millstone). This was a unique enforcement-related action based upon longstanding, repetitive, and widespread breakdowns in the licensee's performance. Additionally, the Order was only issued after a year of investigations which identified numerous performance issues, including longstanding safety-conscious working environment problems and a chilled environment at Millstone for addressing safety issues, for which the NRC staff did not have sufficient technical and programmatic expertise to evaluate at the time. While the licensee did not detect the RPV head degradation problems in a timely manner, the NRC has not identified a history of longstanding, repetitive, or widespread performance problems at Davis-Besse similar to those which precipitated the agency's actions at Millstone. At this time, the NRC staff does not believe that an independent

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panel at Davis-Besse is necessary. If further assessment by the IMC 0350 Oversight Panel identifies new and/or different issues that would form the basis to escalate the current staff response, a change would then be considered.

Contrary to the implied assertion by the Petitioners that the NRC staff is not competent to oversee and conduct a thorough review, the staff finds that the ongoing regulatory actions are intended to provide information that will adequately resolve the RPV head degradation safety issues and associated concerns at Davis-Besse. The licensee's own actions to provide for independent verification by industry experts will provide supplementary assurance that the NRC's current actions are adequate. Although the individual RPV head degradation issues and concerns have not yet been resolved, the issue raised by the Petitioners regarding the regulatory processes for reviewing the broader aspects of the licensee's performance have been the subject of NRC staff review and evaluation. The staff continues to believe that the establishment of an AIT, an IMC 0350 Oversight Panel, and LLTF, as well as comprehensive technical reviews being performed by NRR, are responsive to the degradation problem. The Petitioners' request for the NRC to issue an Order to the licensee requiring the establishment of an additional independent program would create another layer of oversight, representing unnecessary regulatory burden without additional value to be gained.

III. Conclusion

The NRC staff finds that its ongoing actions are sufficient to verify the adequacy of the licensee's performance related to RPV head degradation issues and to reassure the public that all reasonable safety measures have been taken prior to plant restart. The combined efforts of an AIT, an IMC 0350 Oversight Panel, and a LLTF will adequately identify and evaluate the technical and programmatic issues at Davis-Besse. The staff has adequate resources and expertise to monitor the licensee's corrective and preventative actions. Thus, the enforcement-

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related action requested by the Petitioners for a VIP is not warranted. Additionally, the licensee is already taking action to provide for a suitable level of independent verification for restart activities. Therefore, the Petitioners' request for the NRC to issue an Order to the licensee requiring the establishment of an additional independent program is denied. However, the Petitioners' requests for various tasks to be accomplished by an independent program were carefully considered and are being accommodated by the NRC's ongoing actions, so these requests may be considered to have already been granted in recognition of the valid concerns of the Petitioners. If further assessment by the IMC 0350 Oversight Panel shows a potential need for an independent panel, then we would consider one at that time.

As provided in 10 CFR 2.206(c), a copy of this Director's Decision will be filed with the Secretary of the Commission for the Commission to review. As provided for by this regulation, the decision will constitute the final action of the Commission 25 days after the date of the decision unless the Commission, on its own motion, institutes a review of the decision within that time.

Dated at Rockville, Maryland, this [date] day of [Month Year].

FOR THE NUCLEAR REGULATORY COMMISSION

Samuel J. Collins, Director
Office of Nuclear Reactor Regulation

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