

February 19, 2003

EA-02-117  
EA-02-257

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

SUBJECT: DAVIS-BESSE NUCLEAR POWER STATION  
FINAL SIGNIFICANCE DETERMINATION FOR TWO WHITE FINDINGS AND  
NOTICE OF VIOLATION, NRC INSPECTION REPORT 50-346/02-16(DRS)

Dear Mr. Myers:

The purpose of this letter is to provide you with the final results of our significance determination of the two preliminary White findings identified in the subject inspection report. The two findings were associated with radiological controls related to steam generator nozzle dam installation conducted on February 20, 2002. The findings involved failures by your staff to: (1) conduct an adequate evaluation of the radiological hazards in order to characterize the radiological work conditions; and (2) take timely and suitable measurements to adequately monitor the occupational intake of these materials by workers during and following the steam generator nozzle dam installation. The inspection findings were assessed using the significance determination process and were preliminarily characterized as White, (i.e., a finding with low to moderate increased importance to safety, which may require additional NRC inspections).

In a telephone conversation with Mr. T. Kozak of NRC, Region III, on January 21, 2003, Mr. P. McCloskey of your staff indicated that FirstEnergy Nuclear Operating Company agreed with the preliminarily characterization of the risk significance of the findings and declined the opportunity to provide additional information or discuss the issue in a regulatory conference.

After considering the information developed during the inspection, the NRC has concluded that the inspection findings are appropriately characterized as White (i.e., an issue with low to moderate increased importance to safety, which may require additional NRC inspections).

You have 30 calendar days from the date of this letter to appeal the staff's determination of significance for the identified White findings. Such appeals will be considered to have merit only if they meet the criteria given in NRC Inspection Manual Chapter 0609, Attachment 2.

The NRC has also determined that the failure to conduct adequate surveys of the radiological hazards and the failure to take timely and suitable measurements of radioactive material to adequately monitor the workers' occupational intake were violations of 10 CFR Part 20.1501(a), and 10 CFR Part 20.1204(a); respectively, as cited in the enclosed Notice of Violation (Notice). The circumstances surrounding the violations are described in detail in the subject inspection report. In accordance with the NRC Enforcement Policy, NUREG-1600, the Notice of Violation is considered escalated enforcement action because it is associated with a White finding.

You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response.

Because plant performance is under review in accordance with NRC Inspection Manual Chapter (IMC) 0350, "Oversight of Operating Reactor Facilities in a Shutdown Condition with Performance Problems," on October 30, 2002, the issues concerning the radiation protection program were added to the Davis-Besse Oversight Panel Restart Checklist. The Restart Checklist is a listing of issues requiring resolution before the Oversight Panel could consider a recommendation for facility restart. The Oversight Panel has discussed its plans for a follow-up inspection with you.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>. 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. The NRC also includes significant enforcement actions on its Web site at [www.nrc.gov](http://www.nrc.gov); select **What We Do, Enforcement**, then **Significant Enforcement Actions**.

Sincerely,

*/RA/*

J. E. Dyer  
Regional Administrator

Enclosure: Notice of Violation

Docket No. 50-346  
License No. NPF-3

See Attached Distribution

L. Myers

-3-

cc w/encl: B. Saunders, President - FENOC  
Plant Manager  
Manager - Regulatory Affairs  
M. O'Reilly, FirstEnergy  
Ohio State Liaison Officer  
R. Owen, Ohio Department of Health  
Public Utilities Commission of Ohio  
President, Board of County Commissioners  
Of Lucas County  
President, Ottawa County Board of Commissioners  
D. Lochbaum, Union Of Concerned Scientists

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Sincerely,  
**/RA/**  
 J. E. Dyer  
 Regional Administrator

Enclosure: Notice of Violation

Docket No. 50-346

License No. NPF-3

See Attached Distribution

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**\*See Previous Concurrence**

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cc w/encl: B. Saunders, President - FENOC  
Plant Manager  
Manager - Regulatory Affairs  
M. O'Reilly, FirstEnergy  
Ohio State Liaison Officer  
R. Owen, Ohio Department of Health  
Public Utilities Commission of Ohio  
President, Board of County Commissioners  
Of Lucas County  
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## NOTICE OF VIOLATION

First Energy Nuclear Operating Company  
Davis-Besse Nuclear Power Station

Docket No. 50-346  
License No. NPF-3  
EA-02-117  
EA-02-257

During an NRC inspection which was initiated on September 30, 2002, two violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," NUREG-1600, the violations are listed below:

1. 10 CFR 20.1501(a) requires that each licensee make or cause to be made surveys that may be necessary for the licensee to comply with the regulations in Part 20 and that are reasonable under the circumstances to evaluate the extent of radiation levels, concentrations or quantities of radioactive materials, and the potential radiological hazards that could be present. Pursuant to 10 CFR 20.1003, survey means an evaluation of the radiological conditions and potential hazards incident to the production, use, transfer, release, disposal, or presence of radioactive material or other sources of radiation.

Contrary to the above, as of February 20, 2002, the licensee did not make surveys to assure compliance with 10 CFR 20.1201(a)(1)(i) and (ii), which limits radiation exposure such that the total effective dose equivalent does not exceed an annual dose limit of 5 rem, and the sum of the deep-dose equivalent and committed dose equivalent to any individual organ or tissue other than the lens of the eye does not exceed an annual dose limit of 50 rem. Specifically, the licensee did not conduct an adequate evaluation of the radiological conditions and potential hazards inside the steam generator (SG) bowls prior to nozzle dam installations. This resulted in the failure to identify the presence of alpha emitting isotopes in the SG bowls in concentrations sufficient to cause a substantial potential for an exposure in excess of applicable regulatory requirements to workers without adequate protection against internal contamination.

This violation is associated with a White SDP finding. (EA-02-117)

2. 10 CFR 20.1204(a) states that, for purposes of assessing dose used to determine compliance with occupational dose equivalent limits, the licensee shall, when required under 10 CFR 20.1502, take suitable and timely measurements of concentrations of radioactive material in air in work areas, quantities of radionuclides in the body, quantities of radionuclides excreted from the body or combinations of these measurements.

10 CFR 20.1502(b) requires each licensee to monitor the occupational intake of radioactive material by and assess the committed effective dose equivalent to adults likely to receive, in one year, an intake in excess of 10 percent of the applicable annual limits of intake (ALIs) in Table 1, Columns 1 and 2, of Appendix B to 10 CFR 20.1001 - 20.2402.

Contrary to the above, on February 20, 2002, the licensee failed to take suitable and timely measurements of concentrations of radioactive material in air in work areas. In addition, following internal contaminations on February 20, 2002, the licensee failed to take suitable and timely measurements of the quantities of radionuclides in the body, quantities of radionuclides excreted from the body, or combinations of these measurements for two workers required to be monitored. Specifically, the individuals were likely to receive an intake greater than 10 percent of the applicable annual limits of intake since the licensee knew that increased concentrations of alpha emitting isotopes existed in the plant contamination mix, that high contamination levels existed in the SGs, and that two workers potentially received a relatively large amount of internal contamination.

This violation is associated with a White SDP finding. (EA-02-257)

Pursuant to the provisions of 10 CFR 2.201, First Energy Nuclear Operating Company, is hereby required to submit a written statement or explanation to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555 with a copy to the Regional Administrator, Region III, and a copy to the NRC Resident Inspector at the facility that is the subject of this Notice, within 30 days of the date of the letter transmitting this Notice of Violation (Notice). This reply should be clearly marked as a "Reply to a Notice of Violation" and should include for each violation: (1) the reason for the violation, or, if contested, the basis for disputing the violation or severity level, (2) the corrective steps that have been taken and the results achieved, (3) the corrective steps that will be taken to avoid further violations, and (4) the date when full compliance will be achieved. Your response may reference or include previous docketed correspondence, if the correspondence adequately addresses the required response. If an adequate reply is not received within the time specified in this Notice, an order or a Demand for Information may be issued as to why the license should not be modified, suspended, or revoked, or why such other action as may be proper should not be taken. Where good cause is shown, consideration will be given to extending the response time.

If you contest this enforcement action, you should also provide a copy of your response, with the basis for your denial, to the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001.

Because your response will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>, to the extent possible, it 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 2.790(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.

In accordance with 10 CFR 19.11, you may be required to post this Notice within two working days.

Dated this 19th day of February 2003