

January 28, 2004

EA-03-197

Mr. William R. Kanda  
Vice President - Nuclear, Perry  
FirstEnergy Nuclear Operating Company  
P. O. Box 97, A210  
10 Center Road  
Perry, OH 44081

SUBJECT: FINAL SIGNIFICANCE DETERMINATION FOR A WHITE FINDING  
(NRC INSPECTION REPORT 50-440/2004-005)

Dear Mr. Kanda:

The purpose of this letter is to provide you with the final results of our significance determination of the preliminary White finding associated with the A emergency service water (ESW) pump discussed in Inspection Report 50-440/2003-006, issued October 30, 2003. The inspection finding was assessed using the Significance Determination Process and was preliminarily characterized as White (i.e., a finding with low to moderate increased importance to safety, which may require additional NRC inspection). This preliminary White finding was identified on September 1, 2003, when the ESW A pump shaft failure occurred at the Perry Nuclear Plant.

At your request, a Regulatory Conference was held on December 17, 2003, to further discuss your views on this issue. At the Regulatory Conference, your staff presented an overview of the event, related corrective actions, and the methodology and results of your independent safety assessment of the preliminary White finding. A copy of your slide presentation is enclosed. Your staff's presentation also included a discussion, based upon the additional information presented, that it is your view that the finding would be more properly characterized as Green, that is, a finding of very low safety significance. The NRC and Perry staffs held extensive discussions regarding specific technical issues related to your analysis. You provided the details of your risk analysis to us in a letter dated December 23, 2003.

Following our review of your information, we determined that the results of your risk analysis were not compelling enough to change our preliminary position that the finding is White. Your initial determination, as stated in LER 2003-004-00, concluded the finding was White consistent with our preliminary assessment. Subsequently, in the regulatory conference and your

submittal of December 23, 2003, you shared with us your analysis that the risk significance of the finding was reduced by partitioning the risk and by addressing conservatisms in the PSA model and in the specific condition assessment. In general, your analysis supported your conclusion that the overall risk was reduced below the Green/White threshold. We acknowledge the validity of the points you made in your analysis. However, your approach appeared to be limited to considering only those factors where the overall risk could be decreased. It did not consider other factors where the overall risk could be increased. As a check, we performed a similar assessment for Large Early Release Frequency (LERF), utilizing your CDF reduction factor and the NRC's risk model, and determined the finding would be above the Green/White threshold. The overall results of your calculations were approximately  $9.7 \times 10^{-7}$ , or just below the Green/White threshold of  $1 \times 10^{-6}$ . The NRC's analysis concluded the significance value was  $2.7 \times 10^{-6}$ . Considering the two analytic approaches and their differences, we determined that the issue should be considered a White finding.

Therefore, after considering the information developed during the inspection; the additional information you provided in your letter dated December 23, 2003; and the information you provided at the conference; the NRC has concluded that the inspection finding is appropriately characterized as White, that is, an issue with low to moderate increased importance to safety, which may require additional NRC inspection.

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

The NRC has also determined that the failure to develop a procedure that adequately incorporated instructions for proper reassembly of the ESW pump is a violation of Technical Specification 5.4, as cited in the enclosed Notice of Violation (Notice). The circumstances surrounding the violation are described in detail in Inspection Report 05000440/2003-006. 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.

Because plant performance for this issue has been determined to be in the regulatory response band, we will use the NRC Action Matrix to determine the most appropriate NRC response for this event. We will notify you by separate correspondence of that determination.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response, if any, 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 by Geoffrey E. Grant for/**

James L. Caldwell  
Regional Administrator

Docket No. 50-440  
License No. NPF-58

Enclosure:    1.     Notice of Violation  
                  2.     Licensee Presentation  
                  3.     Regulatory Conference Attendance List

cc w/encl:    G. Leidich, President - FENOC  
                  K. Cimorelli, Acting Director,  
                  Maintenance Department  
                  V. Higaki, Manager, Regulatory Affairs  
                  J. Messina, Director, Nuclear  
                  Services Department  
                  T. Lentz, Director, Nuclear  
                  Engineering Department  
                  T. Rausch, Plant Manager,  
                  Nuclear Power Plant Department  
                  M. O'Reilly, Attorney, First Energy  
                  Public Utilities Commission of Ohio  
                  Ohio State Liaison Officer  
                  R. Owen, Ohio Department of Health

DOCUMENT NAME: G:\Per\Perry Response to Reg Conf & Final Significance Letter.wpd

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DATE	01/23/04		01/23/04		01/27/04		01/27/04		01/28/04	

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R. Caniano (RJC1), Deputy Director, Division of Reactor Safety, RIII  
R. Powell, SRI, Perry  
DRS Branch Chiefs (JFL, DEH, RDL, KXR)  
R. Lickus (RML2), State Liaison Officer, RIII  
PMNS  
RIII Public Affairs (VTM, RJS2)  
J. Kweiser (JRK1), ORA  
P. Buckley (PLB1), ORA  
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OEWEB

## NOTICE OF VIOLATION

FirstEnergy Nuclear Operating Company  
Perry Nuclear Power Plant, Unit 1

Docket No. 50-440  
License No. NFP-58  
EA-03-197

During an NRC inspection conducted from July 1 through September 30, 2003, a violation of NRC requirements was identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," NUREG-1600, the violation is listed below:

Technical Specification 5.4 requires, in part, that procedures shall be established, implemented and maintained as recommended in Regulatory Guide 1.33, Revision 2, Appendix A, February 1978. Regulatory Guide 1.33, Appendix A, Section 9, "Procedures for Performing Maintenance," recommends, in part, that maintenance activities that can affect the performance of safety-related equipment be performed in accordance with written procedures appropriate to the circumstances. The licensee developed Procedure GMI-0039, "Disassembly of the Emergency Service Water Pumps," to disassemble and reassemble the Division 1 and 2 emergency service water pumps. This procedure provides direction for the coupling of the pump shaft sections during reassembly.

Contrary to the above, the licensee failed to establish written procedures appropriate to the circumstances. Specifically, the vendor procedure specified that the setscrew holes should align with the groove in the slip ring such that the setscrews should be flush with the coupling sleeve. The licensee failed to transfer this requirement to the procedure for pump reassembly resulting in improper alignment of the coupling components when the pump was reassembled on July 24, 1997, using GMI-0039, Revision 3. As a result, the pump subsequently failed on September 1, 2003.

This violation is associated with a White Significance Determination Process finding.

Pursuant to the provisions of 10 CFR 2.201, FirstEnergy 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 Perry Nuclear Power Plant, 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; EA-03-197" 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, U. S. 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 28th day of January 2004