

November 6, 1996

EA 96-367

Mr. Lew W. Myers  
Vice President - Nuclear  
Centerior Service Company  
P. O. Box 97, A200  
Perry, OH 44081

SUBJECT: NOTICE OF VIOLATION  
(NRC SPECIAL INSPECTION REPORT NO. 50-440/96008(DRS))

Dear Mr. Myers:

This refers to the inspection conducted on August 26 through September 11, 1996, at the Perry Nuclear Power Plant. The inspection included a review of the circumstances surrounding the loss of both trains of the Emergency Closed Cooling (ECC) system in 1993, and the loss of both trains of Control Room Emergency Recirculation due to low ECC temperature in 1994. The report documenting the inspection was sent by letter dated September 17, 1996, and a predecisional enforcement conference was conducted on October 11, 1996. These events were reported to the NRC in Licensee Event Reports dated January 24 and October 28, 1994.

Based on the information developed during the inspection and the information that was provided during the conference, the NRC has determined that violations of NRC requirements occurred. The violations are cited in the enclosed Notice of Violation (Notice) and the circumstances surrounding the violations are described in detail in the subject inspection report.

In July 1993, during performance of a heat exchanger performance test on ECC Train A, the surge tank overflowed. Subsequent review determined that ECC/Nuclear Closed Cooling butterfly isolation motor-operated valve (MOV) OP42-F295A was leaking in excess of 250 gallons per minute (gpm) because the valve was stroking past its full closed position as a result of mispositioned limit switches and mechanical stops. The limit switches and mechanical stops were subsequently re-adjusted and the valve was satisfactorily tested.

The valve limit switches and mechanical stops had been previously adjusted on March 19, 1993; therefore, the valve was unable to perform its isolation function from March 19 to July 2, 1993. ECC Train A was inoperable because in the event of a loss of offsite power/loss of coolant accident (LOOP/LOCA) with a single active failure of the Division 2 emergency diesel generator, it would have lost inventory at a rate such that, within one minute of receipt of the surge tank low level alarm, the Train A pump would begin to cavitate. The plant was in Operational Conditions 1, 2, or 3 from June 2 to July 2, 1993. Additionally, during this period both trains of ECC were inoperable for approximately 45 hours while the Division 2 emergency diesel generator was out of service.

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The root causes of the event were personnel error and weak procedural direction for setting MOV limit switches and mechanical stops in 1993 and the failure to classify valves OP42-F295A/B as ASME Section XI Category A valves for which seat leakage is limited to a specific maximum amount.

The violations in Section I of the Notice represent a significant failure to comply with the action statement for a Technical Specification Limiting Condition for Operation and are classified in the aggregate in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions" (Enforcement Policy), NUREG-1600, as a Severity Level III problem.

In accordance with the Enforcement Policy, a base civil penalty in the amount of \$50,000 is considered for a Severity Level III problem. Because your facility has been the subject of escalated enforcement actions within the previous two years<sup>1</sup> prior to your identification of the violations in December 1993, the NRC considered whether credit was warranted for *Identification and Corrective Action* in accordance with the civil penalty assessment process in Section VI.B.2 of the Enforcement Policy. Credit was warranted for your architect/engineer's identification that both trains of ECC had been inoperable in December 1993.

Credit was warranted for your corrective actions for the violations in Section I of the Notice. These included re-adjusting the limit switches and mechanical stops on valve OP42-F295A and conducting post-maintenance testing to verify the valve would function as required; initiating an engineering evaluation to determine if the potential for an incorrectly set butterfly valve limit switch or mechanical stop on other systems could cause a similar problem; revising the Limit/Torque Limit/Torque Switch adjustment procedure to require a post-maintenance leakage test on butterfly MOVs which have an established seat leakage limit and clarify instructions for setting limit switches and checking mechanical stop nut settings; and providing training to maintenance and system engineering personnel on this event and the necessity of verifying proper butterfly valve closure. Although the NRC identified during the 1996 inspection that valves OP42-F295A/B and OP42-F325A/B were not properly classified as Category "A" in the in-service testing program, the valves had been tested within the frequency specified for Category "A" valves as a result of Generic Letter 89-10 and preventive maintenance activities. This failure to classify the valves as Category "A" had been previously identified by your staff in January 1994 but no action was taken. The failure to take corrective action for this isolated deficiency is cited in Section II of the Notice. The in-service testing program was subsequently revised to properly classify these valves.

Therefore, to encourage prompt identification and comprehensive correction of violations, I have been authorized, after consultation with the Director, Office of Enforcement, not to propose a civil penalty in this case. However, significant violations in the future could result in a civil penalty.

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<sup>1</sup> A Severity Level III violation for failure to take corrective action (identified in June 1993) was issued on August 31, 1993 (EA 93-176).

November 6, 1996

Section II of the Notice describes two violations involving failure to (1) take adequate corrective actions to prevent ECC system temperature from decreasing below 55° F, and to (2) classify certain valves as Category "A" in the in-service testing program. Each of these violations has been categorized at Severity Level IV in accordance with the Enforcement Policy.

You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. The NRC will use your response, in part, to determine whether further enforcement action is necessary to ensure compliance with regulatory requirements.

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 placed in the NRC Public Document Room (PDR).

Sincerely,

/s/ W. L. Axelson (for)

A. Bill Beach  
Regional Administrator

Docket No. 32-440  
License No. NPF-58

Enclosure: Notice of Violation

cc w/encl: J. P. Stetz, Senior Vice  
President, Nuclear  
L. W. Worley, Director, Nuclear  
Services Department  
J. D. Kloosterman, Manager,  
Regulatory Affairs  
W. R. Kanda, Director, Perry Nuclear  
Assurance Department  
N. L. Bonner, Director, Perry  
Nuclear Engineering Dept.  
H. Ray Caldwell, General  
Superintendent Nuclear Operations  
R. D. Brandt, General Manager Operations  
Terry J. Lodge, Esq.  
State Liaison Officer, State of Ohio  
Robert E. Owen, Ohio  
Department of Health  
C. A. Glazer, State of Ohio,  
Public Utilities Commission

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*Wyn 11/6/96*

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Sincerely,

A. Bill Beach  
Regional Administrator

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

Enclosure: Notice of Violation  
cc w/encl: *J. P. Stetz, Senior Vice President, Nuclear*  
~~L. W. Myers, Vice President, Nuclear~~  
L. W. Worley, Director, Nuclear  
Services Department  
J. D. Kloosterman, Manager,  
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W. R. Kanda, Director, Perry Nuclear  
Assurance Department  
N. L. Bonner, Director, Perry  
Nuclear Engineering Dept.  
H. Ray Caldwell, General  
Superintendent Nuclear Operations  
R. D. Brandt, General Manager Operations  
Terry J. Lodge, Esq.  
State Liaison Officer, State of Ohio  
Robert E. Owen, Ohio  
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