

May 30, 1997

EA 96-391

Mr. J. S. Perry  
Site Vice President  
Dresden Station  
Commonwealth Edison Company  
6500 North Dresden Road  
Morris, IL 60450

SUBJECT: NOTICE OF VIOLATION  
(NRC INSPECTION REPORT 50-237/96013(DRP); 50-249/96013(DRP))

Dear Mr. Perry:

This refers to the inspection conducted from September 1 through October 18, 1996 at the Dresden Station's Unit 2 and 3 facilities. This inspection included a review of the circumstances surrounding the failure to maintain the primary containment leakage within the acceptable limits between January and May 1995. This was reported to the NRC in Licensee Event Report 50-249/95007, Revisions 0, 1 and 2, "Leakage Limit Exceeded Due to Valve Internal Damage Caused by Manual Operation of Motor Operated Valves." The written results of this inspection were provided to you on December 31, 1996.

Based on the information developed during the inspection and the information that you provided in a letter from the Dresden Station dated January 28, 1997, the NRC has determined that a violation of NRC requirements occurred. The violation is cited in the enclosed Notice of Violation (Notice) and the circumstances surrounding it are described in detail in the subject inspection report. In June 1995, you determined that the Unit 3 inboard and outboard main steam line drain primary containment isolation valves were leaking greater than the local leak rate test equipment could measure. It was subsequently determined that between January 16, 1995, and May 28, 1995, with the reactor critical, primary containment leakage was greater than 60 percent of La due to leakage past the Unit 3 inboard and outboard main steam line drain primary containment isolation valves, 3-220-1 and 3-220-2. Main steam line drain isolation valves 3-220-1 and 3-220-2 are Anchor Darling isolation valves subject to Type B and C tests. The inboard valve leakage was caused by low spots on the valve seat from the poor alignment of the disk to seat. The outboard valve leakage was caused by the missing lower wedge of the valve disk and a bent stem.

The safety significance of this event was related to the potentially increased radiological consequences both on and off-site. Initial calculations determined that under worst case conditions, dose limits established by 10 CFR Part 50, Appendix A, General Design Criterion 19 for control room operators and by 10 CFR Part 100 for the Exclusion Area Boundary (EAB) and the Low Population Zone (LPZ) would have been exceeded during a Design Basis Accident.

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Subsequent assessments performed by your staff using expected containment accident parameters and expected main steam line drain leakage values concluded that control room and offsite doses were lower than the initial calculations and were within the regulatory limits. Several weaknesses were identified which contributed to the isolation valves leaking. These weaknesses included the lack of experience on the Anchor Darling double disk gate valves prior to installation, poor maintenance instructions for the Anchor Darling valve assemblies, and the inadequate design modification process which failed to identify that low torque values would damage the valve during normal handwheel operation. If more attention had existed in these areas, and no valve damage had occurred, then containment integrity could have been maintained.

This issue is of concern because the inadequate design modification review and poor maintenance instructions for the installation of the primary containment isolation valves resulted in the degradation of the primary containment system. This degradation had the potential for causing control room and off-site radiological doses to exceed regulatory limits during the Design Basis Accident. Therefore, this violation has been categorized in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions" (Enforcement Policy), NUREG-1600 at Severity Level III.

In accordance with the Enforcement Policy, a base civil penalty in the amount of \$50,000 is considered for a Severity Level III violation that occurred before November 12, 1996. Because your facility has been the subject of escalated enforcement actions within the last 2 years,<sup>1</sup> 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. The NRC determined that credit for Identification was warranted because in June 1995, your staff identified that the Unit 3 inboard and outboard main steam line drain primary containment isolation valves were leaking greater than the local leak rate test (LLRT) test equipment could measure. Your staff then determined that this leakage was not within the acceptable limits for primary containment leakage, and subsequently wrote a licensee event report. The NRC determined that credit for Corrective Action was warranted based on your prompt and thorough corrective actions. Your determination of the root cause was considered methodical and thorough. The corrective actions were comprehensive and included: the repair and replacement of the inboard and outboard valves, respectively; a revision of multiple procedures to formally control motor operated valve handwheel usage; a review of Unit 2 and 3 valves susceptible to damage from handwheel use; evaluation, test, and inspection to verify valve integrity; training for operations and maintenance personnel on the manual operation of motor operated valves; and the development of a list of allowable generic torque values for

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<sup>1</sup> A Severity Level III violation with a \$50,000 Civil Penalty was issued on June 13, 1996 (EA 96-115); a Severity Level III violation with a \$50,000 Civil Penalty was issued on December 5, 1995 (EA 95-214); a Severity Level III violation with a \$100,000 Civil Penalty was issued on April 5, 1995 (EA 95-030).

safety related and balance of plant motor operated valves for use during handwheel operation. Your root cause evaluation and subsequent corrective actions were comprehensive; however, the valve failures were considered preventable and were indicative of a weakness in your motor operated valve design control process.

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.

The NRC has concluded that information regarding the reason for the violation, the corrective actions taken and planned to correct the violation and prevent recurrence is already adequately addressed on the docket in Inspection Report Nos. 50-237;249/96013(DRP); LER 249/95007, and your response to the inspection report dated January 28, 1997. Therefore, you are not required to respond to the enclosed Notice unless the description in the docketed materials referenced above do not accurately reflect your corrective actions or your position. In that case, or if you choose to provide additional information, you should follow the instructions specified in the enclosed Notice.

Finally, we note that there is a discrepancy between Revision 2 of LER 249/95007 and your January 28, 1997 letter concerning your staff's initial assessment of control room operator doses and EAB and LPZ doses under worst case conditions. Your LER states that these dose limits *would* have been exceeded (page 5, second paragraph in Section D), while your January 28 letter states that these doses *might* have been exceeded (page 1, second paragraph). While this might have been an oversight in word choice, I want to emphasize to you the importance of ensuring that information that you provide to the Commission be complete and accurate in all material respects, especially when that information is being used for regulatory decision-making. Therefore, we request that you respond to this discrepancy and submit formal clarification on this issue.

J. S. Perry

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In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be placed in the Public Document Room (PDR).

Sincerely,

Original signed by A. Bill Beach

A. Bill Beach  
Regional Administrator

Docket Nos. 50-237; 50-249  
License Nos. DPR-19; DPR-25

Enclosure: Notice of Violation

cc w/encl: T. J. Maiman, Senior Vice President  
Nuclear Operations Division  
D. A. Sager, Vice President,  
Generation Support  
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DATE	5/23/97		5/25/97		5/25/97	5/29/97	

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