



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION III
801 WARRENVILLE ROAD
LISLE, ILLINOIS 60532-4351

January 2, 1996

EA 95-241

Mr. Michael J. Wallace
Vice President and Chief
Nuclear Officer
Commonwealth Edison Company
Executive Towers West III
1400 Opus Place, Suite 300
Downers Grove, Illinois 60515

SUBJECT: QUAD CITIES STATION - UNITS 1 AND 2
NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTY -
\$50,000
(NRC INSPECTION REPORT NOS. 50-254/95007(DRP); 50-265/95007(DRP))

Dear Mr. Wallace:

This refers to the inspection conducted on September 2 through October 18, 1995, at the Quad Cities Station. During the inspection we reviewed the circumstances surrounding the main feed breaker trip on 480 VAC Motor Control Center (MCC) 29-2 from current overload that occurred on October 4, 1995. The report documenting the inspection was sent to you by letter dated November 9, 1995. A predecisional enforcement conference was conducted on November 21, 1995, and the report documenting the conference was sent to you by letter dated December 14, 1995.

Based on the information developed during the inspection and the information that you provided during the conference, and in a Licensee Event Report dated November 2, 1995, the NRC has determined that a violation of NRC requirements occurred. One violation involving the failure to promptly correct the potential for safety-related MCCs to trip on current overload is cited in the enclosed Notice of Violation and Proposed Imposition of Civil Penalty (Notice) and the circumstances surrounding it are described in detail in the subject inspection report.

On October 4, 1995, with Quad Cities Unit 2 at 87% power, the feed breaker to MCC 29-2 tripped on current overload. Prior to the event, Quad Cities had been notified at least three times by internal licensee documents about a similar June 8, 1994 event when Dresden MCC 39-2 tripped on overload. These documents included a Licensing followup package for an NRC inspection issue (Unresolved Item 50-254/265-94014-03(DRP)), a Dresden Lessons Learned Initial Notification, and Dresden Licensee Event Report (LER) 94018. Additionally, a June 1994 corporate engineering study provided Quad Cities sufficient information to conclude there was a potential for MCC 29-2, 18-1B, 18-2, 28-1B and 28-2 feed breakers to trip because the maximum load current exceeded the feed breaker lower end tolerance. MCC 18-2 was the only overload condition that was addressed and corrected. Site Engineering had not implemented

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actions to address other overloaded MCCs and had not informed Operations regarding the potential challenges plant operators might face in coping with the loss of essential equipment. The MCC 29-2 trip event also highlighted Engineering's lack of understanding of original design assumptions. This lack of understanding resulted in ineffective electrical load management of the auxiliary power system, and a failure to consider breaker trip setting tolerances.

The NRC acknowledges that the safety consequence of the MCC 29-2 trip was reduced because some loads, such as residual heat removal service water pump cooler fans, could be lost for a short period of time without causing equipment degrading temperatures, and battery chargers could be lost for four hours because the batteries are sized to carry short term accident load profiles. However, the potential safety consequence of tripping multiple MCCs was significant as it would pose an unexpected challenge to operators. Therefore, the 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. Because your facility has been the subject of escalated enforcement actions within the last 2 years¹, 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 not warranted for identification because the NRC identified the corrective action violation. Credit was warranted for your comprehensive corrective actions. Initial corrective actions included an extensive review of affected load centers and implementation of administrative load restrictions. Planned corrective actions include, but are not limited to: (1) improving the Electrical Load Management System (ELMS-AC+) program to better reflect Quad Cities electrical loads and transferring ownership of the program to the site by December 1996; (2) raising breaker trip setpoints as appropriate; (3) evaluating the need for modifications to replace feed cables for overloaded MCCs; (4) developing permanent administrative controls as appropriate; (5) ensuring that generic notifications receive the proper level of review; and (6) implementing an investigation to determine additional root causes and corrective actions.

We recognize that the violation in the enclosed Notice occurred in the same time frame as the corrective action problem previously cited in our Notice of Violation and Proposed Imposition of Civil Penalties - \$100,000 issued on December 14, 1994 (EA 94-220). Your response to EA 94-220 dated January 13, 1995, indicated that the station had an informal problem resolution process, responses to industry information were inadequate, and the station failed to

¹ A Severity Level III violation (identified on August 8, 1994) and \$100,000 civil penalty was issued on October 18, 1994 (EA 94-186); a Severity Level II problem (identified on April 24, 1994) and \$80,000 civil penalty was issued on October 12, 1994 (EA 94-188); and two Severity Level III problems (identified on September 30, 1994) and \$100,000 in civil penalties were issued on December 14, 1994 (EA 94-220) including failure to promptly correct degradation of the control rod SSPV diaphragms.

identify broader implications of plant problems. Your corrective actions included station management continuing to reinforce a station-wide message that problems are to be documented for tracking and resolution including consideration of broader implications, and assigning Senior Station Management to overview the Event Screening Committee meeting.

However, methods you have established to strengthen the Integrated Reporting Process such as increased management oversight of Events Screening Committee, the Process Expert Group (PEG), and improved root cause analysis effort have not been entirely successful. For example, deficiencies identified in the current limiting function of the 125 and 250 VDC battery chargers were not resolved in a timely manner. Furthermore, weak root cause assessments were evident following some recent equipment failures including the high pressure coolant injection (HPCI) pump turning gear logic failure, the continued HPCI flow control problems, and unsuccessful starts of the emergency diesel generators. We also note that root cause training has not been fully implemented for engineers or root cause team leaders.

Therefore, to emphasize the need for increased management involvement and oversight of your corrective action program, and more engineering rigor and involvement when reviewing potential plant deficiencies, I have been authorized, after consultation with the Director, Office of Enforcement, to issue the enclosed Notice in the base amount of \$50,000 for the Severity Level III violation.

You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. In your response, you should document the specific actions taken and any additional actions you plan to prevent recurrence. After reviewing your response to this Notice, including your proposed corrective actions and the results of future inspections, the NRC will determine whether further NRC enforcement action is necessary to ensure compliance with NRC regulatory requirements.

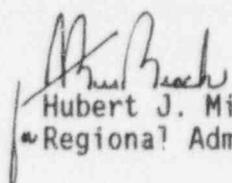
In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response will be placed in the NRC Public Document Room (PDR). To the extent possible, your response should not include any personal privacy, proprietary, or safeguards information so that it can be placed in the PDR without redaction.

M. Wallace

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The responses directed by this letter and the enclosed Notice are not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, Pub. L. No. 96-511.

Sincerely,


Hubert J. Miller
Regional Administrator

Docket Nos. 50-254; 50-265
License Nos. DPR-29; DPR-30

Enclosure: Notice of Violation and
Proposed Imposition of Civil Penalty

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