



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
799 ROOSEVELT ROAD
GLEN ELLYN, ILLINOIS 60137-5927

September 9, 1993

Docket Nos. 50-295 and 50-304
License Nos. DPR-37 and DPR-48
EA 93-064

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

Dear Mr. Wallace:

SUBJECT: NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTY -
\$50,000
(INSPECTION REPORT NOS. 50-295/93009; 50-304/93009 AND
50-295/93014; 50-304/93014)

This refers to the special inspection conducted from July 27, 1992 through March 23, 1993 at Zion Nuclear Generating Station, Units 1 and 2. The inspection included a review of the circumstances surrounding, and related issues emerging from, the opening of auxiliary building missile door L-10. The report documenting this inspection was sent to you by letter dated April 6, 1993. During the inspection, violations of NRC requirements were identified.

An enforcement conference was held on April 16, 1993 to discuss the apparent violations identified in the original report, their causes, and your corrective actions. The report summarizing the enforcement conference was sent to you by letter dated May 3, 1993. A follow-up inspection was conducted on June 24, 1993, and additional violations were identified which were discussed at an exit meeting. The report documenting the follow-up inspection was sent to you by letter dated August 5, 1993.

In August 1989, you set up an on-site laundry facility, located in two semi-trailers next to auxiliary building missile door L-10, to support a refueling outage. To gain access to the facility, the missile door was periodically opened. The open door created a potential unmonitored release path, and the size of the opening (approximately 144 ft²) was sufficient to prevent the

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ventilation system from keeping the auxiliary building at its required negative pressure relative to the outside environment. At that time, however, you failed to evaluate the significance of this facility change (as required by 10 CFR 50.59), and therefore failed to recognize it as an unreviewed safety question, as discussed below. In July 1991, you performed a 10 CFR 50.59 safety evaluation prior to installing a penetration sleeve assembly through the auxiliary building wall near the missile door (to pass supply and drain piping between the auxiliary building and the external laundry). This evaluation recognized the potential for a release path through the penetration, but did not consider the open missile door as a potential release pathway, and concluded that no unreviewed safety question existed.

In the Fall of 1991, a new trailer was installed next to the missile door, and in February 1992, the missile door was continually left open due to the failure of the electrical door actuators. Again, in taking these actions, you failed to recognize that the open missile door was a change to the facility as described in the Updated Final Safety Analysis Report (UFSAR) that required a 10 CFR 50.59 safety evaluation to be performed.

In August 1992, after the NRC inspector raised concerns in this matter, you completed a 10 CFR 50.59 safety evaluation that was technically deficient. In brief, the evaluation rested on the faulty assumption that, with the missile door open, the auxiliary building ventilation system could maintain a negative pressure (relative to the outside) of $\frac{1}{4}$ -inch of water. The inspector questioned this assumption, and his concerns were verified by a December 1992 test which demonstrated that the auxiliary building ventilation system could not maintain the design negative pressure in the auxiliary building with the missile door open.

At the enforcement conference, in addressing the technical significance of the violation and its reportability, you contended that maintaining the auxiliary building at a nominal negative pressure with respect to the outdoors, as described in the UFSAR, is not part of the design basis. We disagree with your contention, because a failure to maintain this parameter invalidates your calculated dose estimates for the UFSAR-postulated accident that involves dropping a spent fuel assembly onto the spent fuel pool floor. For this accident, with the auxiliary building not maintained at a nominal negative pressure relative to the outdoors, actual doses at the site boundary could be higher. Because the previously evaluated consequences of this UFSAR-postulated accident could be increased in this manner, the facility change occasioned by maintaining the missile door open constituted an unreviewed safety question.

Section I of the enclosed Notice of Violation and Proposed Imposition of Civil Penalty (Notice) presents these failures as a violation of 10 CFR 50.59, in that the August 1989 facility change involving an unreviewed safety question was conducted without performing a safety evaluation, and the safety evaluation eventually performed in August 1992 was deficient.

The root cause of the violation was a poor understanding by your engineering

staff of the design basis of the auxiliary building structure and ventilation system. Your handling of this issue reflects major weaknesses in engineering activities at Zion and highlights the importance of fully understanding the design of your facility. We, therefore, strongly encourage continued efforts to improve your knowledge of plant design including, among other things, the ongoing and planned initiatives to reconstitute key design documents and parameters. NRC is also concerned that your management was not aggressive in resolving the issue once a potential safety concern regarding the open doors was identified. The failure to perform adequate safety evaluations and obtain Commission approval prior to modifying an important structure (i.e., the Zion auxiliary building) is of significant regulatory concern.

As such, this violation represents a significant failure to meet the requirements of 10 CFR 50.59. Therefore, in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," (Enforcement Policy) 10 CFR Part 2, Appendix C, the violation has been categorized at Severity Level III.

To emphasize the need for management to be more aggressive in the control of activities affecting safety-related systems, the importance of understanding the design basis of your facility, and the need to ensure that the facility, as described in the UFSAR, is charged only in accordance with the provisions of 10 CFR 50.59, I have been authorized, after consultation with the Director, Office of Enforcement and the Deputy Executive Director for Nuclear Reactor Regulation, Regional Operations, and Research, to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalty in the amount of \$50,000 for the Severity Level III violation.

The base value of a civil penalty for a Severity Level III violation is \$50,000. The adjustment factors in the Enforcement Policy were considered. The civil penalty was increased by 50% because the NRC identified the violation. The civil penalty was mitigated 50% for the comprehensive corrective actions you took after the violation was identified, as presented at the enforcement conference. The other adjustment factors in the policy were considered and no further adjustment to the base civil penalty was considered appropriate.

Section II of the Notice describes four violations not assessed a civil penalty involving (1) inadequate procedures, (2) failure to report a condition that could prevent the fulfillment of a safety function, (3) failure to promptly identify and correct conditions adverse to quality, and (4) failure to calibrate required instrumentation. Each of these violations has been characterized at a Severity Level IV, in keeping with their respective levels of safety significance.

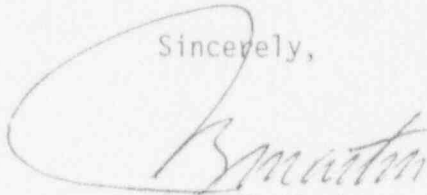
You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. In your response, you should document the specific action taken and any additional actions you plan to prevent recurrence. After reviewing your response to this 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.

The response directed by this letter and the enclosed Notice is not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, Public Law No. 96-511.

Sincerely,



John B. Martin
Regional Administrator

Enclosure:
Notice of Violation and Proposed
Imposition of Civil Penalty

cc w/enclosure:

DCD/DCB (RIDS)

R. Tuetken, Site Vice President

L. DelGeorge, Vice President,
Nuclear Oversight and Regulatory
Services

A. Broccolo, Station Manager

S. Kaplan, Regulatory Assurance Supervisor

D. Farrar, Nuclear Regulatory
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OC/LFDCB

Resident Inspectors, Zion, Braidwood,
Byron

R. Hubbard

J. McCaffrey, Chief, Public Utilities
Division

Mayor, City of Zion

Licensing Project Manager, NRR

R. Newmann, Office of Public Counsel,
State of Illinois Center

R. Thompson, Administrator, Wisconsin
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