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Docket No. 50-249
License No. DPR-25
EA 87-81

Commonwealth Edison Company
ATTN: Mr. James J. O'Connor
President
Post Office Box 767
Chicago, Illinois 60690

Gentlemen:

SUBJECT: NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTY
(NRC INSPECTION REPORT NOS. 50-237/86013; 50-249/86015)

This refers to the NRC inspection conducted May 19 through 23, 1986, at Dresden Station, Morris, IL, of activities authorized by NRC License No. DPR-25. The inspection was conducted by a special environmental qualification (EQ) inspection team to assess the program implemented at Dresden Station to meet the EQ requirements of 10 CFR 50.49. This inspection included examination of Dresden EQ records to verify that they contained appropriate analysis and documentation to support the environmental qualification of electrical equipment installed in the plant. A copy of the inspection report was sent to you by letter dated September 8, 1986. The results of the inspection were discussed on June 4, 1987, during an enforcement conference held in the Region III office between Mr. L. DelGeorge and others of your staff and Mr. C. J. Paperiello and the NRC staff.

The violation in the enclosed Notice of Violation and Proposed Imposition of Civil Penalty (Notice) for the Dresden Unit 3 facility involved the failure to provide documentation of adequate testing and/or analysis as specified in 10 CFR 50.49 to support the environmental qualification of AMP nylon-insulated butt splices. These splices were used in a moderate number of systems important to safety. During the inspection at Dresden Station, it was identified that AMP nylon-insulated butt splices, used in General Electric FO1 containment penetration enclosures in Unit 3, were unqualified for this application, in that the appropriate EQ files failed to demonstrate the similarity between the tested and installed components. Severe degradation of these splices apparently due to aging and temperature excursions had already been identified by Commonwealth Edison Company at Dresden Unit 2 in September 1985. The EQ information provided to the NRC regarding these degraded splices in Unit 2 did not accurately reflect the actual splices installed. All Unit 2 AMP nylon splices had been replaced with qualified Raychem splices in penetration enclosures prior to the EQ deadline of November 30, 1985.

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Subsequent to the NRC inspection, Commonwealth Edison Company conducted a qualification test series at Wyle Laboratory, during which all four samples of AMP nylon splices tested exhibited excessive leakage currents. Details of the Wyle testing were documented in NRC Information Notice 86-104. Based on the failures of the samples during the Wyle tests, these splices were declared inoperable and repaired at Dresden Unit 3.

Commonwealth Edison clearly should have known that these splices were not qualified because (1) severe degradation of these splices had been identified in January and September 1985 in Dresden Unit 2 due to aging and a high temperature event inside containment (the licensee replaced these splices with a different type in Unit 2 but only initiated a monitoring program for Unit 3), (2) the DOR EQ guidelines mention nylon material as being suspect due to its inherently poor characteristics under postulated nuclear power plant environmental conditions, and (3) while some vendor EQ test reports used to qualify the penetration and splices existed in the qualification file, these reports were clearly inadequate in that the tests failed to demonstrate that the installed nylon AMP splices or a suitable similar material had been tested. The test report and subsequent correspondence described a nylon-type splice, but did not specify the manufacturer nor the formulation and material properties of the nylon which was tested. These factors are considered crucial to demonstrate the similarity of the tested and installed materials. Thus, Commonwealth Edison had no reasonable bases to conclude that the AMP splices installed had similar properties to those tested.

To emphasize the importance of environmental qualification, I have been authorized, after consultation with the Commission, and the Deputy Executive Director for Regional Operations, to issue the Notice of Violation and Proposed Imposition of Civil Penalty (Enclosure 1) in the amount of One Hundred Fifty Thousand Dollars (\$150,000) for the violation described in the enclosed Notice. In accordance with the "Modified Enforcement Policy Relating to 10 CFR 50.49," contained in Generic Letter 88-07 (Enclosure 2), the violation described in the enclosed Notice has been determined to be moderate and to have affected some systems and components, and therefore is considered to be an EQ Category B violation. The base value of a civil penalty for an EQ Category B violation is \$150,000.

In determining the civil penalty amount, the NRC considered the four factors set forth in the "Modified Enforcement Policy Relating to 10 CFR 50.49," for escalation and mitigation of the base civil penalty amount. These factors

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consist of (1) identification and prompt reporting of the EQ deficiencies ($\pm 50\%$); (2) overall best efforts to complete EQ within the deadline ($\pm 50\%$); (3) corrective actions to result in full compliance ($\pm 50\%$); and (4) duration of a violation which is significantly below 100 days (-50%).

With respect to the first factor, escalation of the base civil penalty by 50 percent is appropriate because the NRC identified this violation and the licensee failed to take advantage of the identification of the degrading splices in Dresden Unit 2 to resolve the qualification issue of identical splices installed in Dresden Unit 3. With respect to the second factor, mitigation of the base civil penalty by 50 percent is appropriate for the licensee's best efforts in EQ. With respect to the third factor, while the licensee did shut down the operating unit upon learning of the test failure and repair these splices prior to putting Dresden Unit 3 back into operation, these actions were not done in a reasonable time in that the plant operated from May to December 1986 with splices for which qualification could not be demonstrated. Therefore, on balance neither mitigation nor escalation is deemed appropriate considering the licensee's corrective actions. With respect to the fourth factor, mitigation is inappropriate because these EQ violations existed in excess of 100 days. Therefore, on balance, no adjustment to the base civil penalty amount is appropriate.

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 or not further NRC enforcement action is necessary to ensure compliance with NRC regulatory requirements.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and its enclosure will be placed in the NRC Public Document Room.

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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, PL 96-511.

Sincerely



for
A. Bert Davis
Regional Administrator

Enclosures:

1. Notice of Violation and Proposed Imposition of Civil Penalty
2. Generic Letter 88-07
3. Inspection Reports Nos.
No. 50-237/86013;
No. 50-249/86015

cc w/enclosures:

D. L. Farrar, Director
of Nuclear Licensing
J. Eenigenburg, Plant Manager, Dresden
R. L. Bax, Plant Manager, Quad Cities
Licensing Fee Management Branch
Senior Resident Inspector, Dresden
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