

UNITED STATES  
NUCLEAR REGULATORY COMMISSION

In the Matter of )  
Illinois Power Company )  
(Clinton Nuclear Station) )

Docket No. 50-461  
License No. NPF-62  
EA 88-90

ORDER IMPOSING CIVIL MONETARY PENALTY

I

Illinois Power Company (licensee) is the holder of Operating License No. NPF-62 issued by the Nuclear Regulatory Commission (NRC or Commission) on April 17, 1987. The license authorizes the licensee to operate the Clinton Nuclear Station in accordance with the conditions specified therein.

II

Special safety inspections of the licensee's activities were conducted during the periods April 17 through October 13, 1987 and February 25 through March 31, 1988. (NRC Inspection Reports No. 50-461/87026(DRS) and Nr 50-461/88010 (DRS)). The results of the inspections indicated that the licensee had not conducted its activities in full compliance with NRC requirements. A written Notice of Violation and Proposed Imposition of Civil Penalty (Notice) was served upon the licensee by letter dated June 1, 1988. The Notice stated the nature of the violations, the provisions of the NRC's requirements that the licensee had violated, and the amount of the civil penalty proposed for the violations. The licensee responded to the Notice of Violation and Proposed Imposition of Civil Penalty by letter dated June 29, 1988. In its response, the licensee denied Violations A and C and admitted Violation B. In addition, the licensee requested remission of the civil penalty.

III

After consideration of the licensee's response and the statements of fact, explanation, and argument for mitigation contained therein, the Deputy Executive Director for Regional Operations has determined, as set forth in the Appendix to this Order, that Violation A occurred as stated and that the penalty proposed for the violation designated in the Notice of Violation and Proposed Imposition of Civil Penalty should be imposed. With respect to Violation C it was determined that although the licensee failed to meet the EQ requirements of 10 CFR 50.49 the violation is most appropriately classified at Severity Level IV and should be removed as a violation supporting the proposed civil penalty.

IV

In view of the foregoing and pursuant to Section 234 of the Atomic Energy Act of 1954, as amended (Act), 42 U.S.C. 2282, and 10 CFR 2.205, IT IS HEREBY ORDERED THAT:

The licensee pay a civil monetary penalty in the amount of Seventy-Five Thousand Dollars (\$75,000) within 30 days of the date of this Order, by check, draft, or money order, payable to the Treasurer of the United States and mailed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555.

The licensee may request a hearing within 30 days of the date of this Order. A request for a hearing should be clearly marked as a "Request for an Enforcement Hearing" and should be addressed to the Director, Office of Enforcement, U.S.

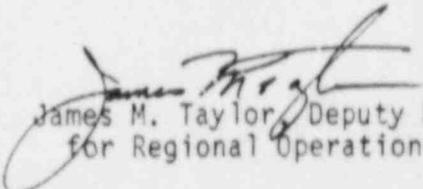
20555, with a copy to the Regional Administrator, Region III, 799 Roosevelt Road, Glen Ellyn, Illinois, 60137, and a copy to the NRC Resident Inspector, Clinton Nuclear Station.

If a hearing is requested, the Commission will issue an Order designating the time and place of the hearing. If the licensee fails to request a hearing within 30 days of the date of this Order, the provisions of this Order shall be effective without further proceedings. If payment has not been made at that time, the matter may be referred to the Attorney General for collection.

In the event the licensee requests a hearing as provided above, the issue to be considered at such hearing shall be:

- (a) whether the licensee was in violation of NRC requirements as described in Violation A set forth in the Notice of Violation and Proposed Imposition of Civil Penalty referenced in Section II above, and
- (b) whether, on the basis of that violation and Violation B set forth in the Notice and admitted by the licensee, this Order should be sustained.

FOR THE NUCLEAR REGULATORY COMMISSION

  
James M. Taylor, Deputy Executive Director  
for Regional Operations

Dated at Rockville, Maryland  
this 20th day of October 1988.

## APPENDIX

### EVALUATION AND CONCLUSION

On June 1, 1988, a Notice of Violation and Proposed Imposition of Civil Penalty (Notice) was issued for violations identified during an NRC inspection. Illinois Power Company responded to the Notice on June 29, 1988. In its response, the licensee admitted that Violation B occurred, but denied that Violations A and C occurred as stated in the Notice. The licensee argues that the NRC's actions in proposing a civil penalty for Violations A and C is not consistent with sound regulatory practices and that remission of the penalty is warranted. The contested violations are restated below, followed by a summary of the licensee's response, the NRC evaluation, and the NRC conclusion.

#### I. Restatement of Violation A

10 CFR 50.49(f) requires, in part, that each item of electric equipment important to safety be qualified by testing and/or analysis under postulated environmental conditions.

Contrary to the above, as of August 19, 1987, the following equipment important to safety was not qualified by appropriate testing and/or analysis which reflected the installed configuration:

One hundred and ninety-six AMP KYNAR electrical butt splices installed in valve actuators, solenoid valves and electrical junction boxes affecting multiple safety systems.

#### Summary of Licensee's Response

The licensee denies that Violation A occurred as stated, in that it had a qualification test report for the most severe environmental condition anticipated in a design basis accident (DBA). The licensee stated that the samples were tested in a configuration similar to their installation in the plant. The licensee noted that in the cover letter accompanying the Notice of Violation, the NRC stated that the butt splices and the wire nuts should have been tested in contact with a ground "since that is a possible configuration and failure mode." When a walkdown of butt splices was performed, none were found in contact with a metal ground. The licensee believes that the NRC's view of the environmental qualification testing required for these items is a result of a new interpretation by the NRC of the applicable regulations and of industry standards.

#### NRC Evaluation of Licensee's Response

Although the licensee had a qualification test report on AMP KYNAR butt splices for severe environmental parameters anticipated during a DBA at Clinton, the tested configuration of the AMP KYNAR butt splices did not simulate an installation in which the splices were touching each other or the metal enclosures. Since Clinton installation and maintenance procedures provide no restrictions for ensuring that splices do not touch each other or the metal housing, severe failures in these configurations were postulated by the NRC during the inspection and were confirmed during testing of the splices.

The licensee in its response stated that during a walkdown subsequent to the NRC finding, none of the splices were found to be in contact with a metal ground. However, it is not clear to the NRC how the licensee could assume that several splices installed in a congested metal junction box or equipment housing would not touch the metal enclosure and thereby have the potential of being grounded. In addition, prior to the NRC finding, the licensee had no evidence to support a conclusion that the splices were not touching the enclosure since such a configuration was allowed by installation design or could result due to maintenance activities. In short, a butt splice in contact with ground is an expected configuration. It was also noted that the licensee's response did not address postulated failures due to splices touching each other and there was no record in the licensee's EQ documentation to show that any evaluations or tests of such a configuration had been performed.

The NRC's view of this violation does not reflect a new interpretation of the EQ regulations and standards. 10 CFR 50.49(k) establishes NUREG-0588, Category I, requirements as being acceptable for qualification of original equipment. NUREG-0588, Category I, Section 2.2(3) refers to IEEE 323-1974, Section 6.3.1.2 which states, in part, that equipment during a type test shall be maintained in a manner and a position that simulates its expected installation when in actual use. The NRC has proposed a number of other environmental qualification enforcement actions for cases in which installed equipment was not maintained in the condition or position of the tested equipment. The NRC recognizes that there is no specific requirement to consider splice-to-splice and splice-to-metal housing configurations. However, given the rather unique application of the AMP KYNAR butt splices, inside containment at Clinton, the NRC concludes that considering such configurations is necessary and not unreasonable. Based on the above considerations, the licensee had not conducted a test to demonstrate qualification of the butt splices in the expected mounting configuration in which splices touch each other or the metal enclosure nor was it demonstrated that such configuration should not be considered.

#### Restatement of Violation C

10 CFR 50.49(f) requires, in part, that each item of electric equipment important to safety be qualified by testing and/or analysis under postulated environmental conditions.

Contrary to the above, as of August 19, 1987, the following equipment important to safety was not qualified by appropriate testing and/or analysis which reflected the installed configuration:

Two hundred and seventy Thomas and Betts nylon wire caps installed in ninety dual voltage Limitorque actuators affecting multiple pieces of equipment important to safety.

#### Summary of Licensee's Response

The licensee denies that Violation C occurred as stated, in that these caps were tested by Limitorque for anticipated environmental conditions during a DBA at the Clinton Station. The licensee states that the caps

were tested in the configuration installed in the plant. The licensee believes that the NRC's view that environmental qualification testing of these items was not adequate is the result of a new interpretation by the NRC of industry standards.

#### NRC Evaluation of Licensee's Response

The licensee's EQ documentation did not address the testing of any kind of nylon wire caps. Subsequent to the finding, the licensee contended that a letter from the vendor (Limatorque) confirmed that Thomas and Betts wire caps were used; however, a letter from a vendor, in lieu of test data, is not considered an adequate basis for the environmental qualification of the component. Since there was no evidence in the EQ files that the wire caps had been tested, the NRC was unable to determine if the installed configuration was adequate.

NRC's view of this violation does not represent a new interpretation of the EQ regulations and standards. NUREG 0588, Category I, Section 5(2) states that a certificate of conformance by itself is not acceptable unless it is accompanied by test data and information on the qualification program. Examining the applicable industry standard, it is found that IEEE 323-1974, Section 6.2(5), states that qualification of Class 1E equipment shall include identification of the design life of any components which may have a life shorter than that of the complete equipment. Since the test report does not state that Thomas and Betts wire caps were used in the tested actuators, the vendor correspondence does not state that the wire caps were used in the tested actuators (and were unprotected), and since no data was provided which supports the vendor's assertions, insufficient evidence exists to support qualification. Furthermore, because the suspect caps were made of nylon, a material susceptible to radiation and thermal aging, the licensee should have addressed the mounting configuration and the condition of the caps during and after LOCA testing.

In conclusion, the NRC staff maintains that Violation C represents a violation of EQ requirements. However, after reconsidering the significance of the violation the NRC staff recommends that it be classified at Severity Level IV. Further, because this violation has been the subject of extensive discussion and corrective actions have been taken, it is recommended that a revised Notice not be issued.

#### II. Summary of Licensee's Request for Remission

The licensee believes that Violations A and C as stated in the Notice of Violation and Proposed Imposition of Civil Penalty did not occur and that other extenuating circumstances exist which make escalation of the civil penalty unwarranted and render remission of the penalty appropriate.

##### Past Performance

The licensee states that Illinois Power Company's performance in the area of environmental qualification of equipment at Clinton Power Station has been generally good. Similarly, during August through October of 1987, the NRC conducted an in-depth evaluation of the EQ program and found that it complies with NRC EQ requirements and, with limited specific exceptions, was properly implemented.

### Prompt and Effective Corrective Action

For two of the examples cited in the alleged violation (AMP KYNAR butt splices and the nylon wire caps), corrective action was prompt and effective, resulting in completion of corrective action with no impact on plant operation. The NRC recognized in the cover letter accompanying the Notice of Violation that the corrective action in response to this item was "prompt and effective."

### Other Extenuating Circumstances

The licensee states that the Notice of Violation that was issued by NRC Region III has concluded that the tests reviewed and accepted by Illinois Power Company were not adequate because the butt splices and wire caps were not tested while restrained to a grounded metal surface. Furthermore, when testing the nylon wire caps in the fashion required by the NRC, the only way that the wire caps could be held in contact with metal was to physically restrain them to the actuator casing; otherwise contact could not be maintained. Thus, contact of these items with metal is only a speculative possibility that is unsupported by the design requirements or by the installations actually observed in the plant.

### NRC Evaluation of Licensee's Request for Mitigation or Remission

The NRC staff has concluded that the removal of Violation C does not affect the civil penalty proposed. Violation A and B alone are sufficient for a Severity Level III violation and therefore the civil penalty is proposed based only on those two violations.

NRC reviews each proposed civil penalty on its own merits and adjusts the base civil penalty values upward or downward appropriately. The criteria for these adjustments are set forth in 10 CFR Part 2, Appendix C.V.B. Adjustments to the base civil penalty may be made for the factors described below:

1. Prompt Identification and Reporting - Reduction of up to 50% of the base civil penalty may be given when a licensee identifies the violation and promptly reports the violation to the NRC. In this case, the violations were identified by the NRC. Therefore, no reduction was made.
2. Corrective Action to Prevent Recurrence - Unusually prompt and extensive corrective action may result in reducing the proposed civil penalty as much as 50% of the base value. On the other hand, the civil penalty may be increased as much as 50% of the base value if initiation of corrective action is not prompt or is only minimally acceptable. The licensee took prompt actions to develop Justifications for Continued Operation and to test the AMP KYNAR butt splices, however, the actions taken by the licensee were inadequate following the discovery by the NRC in August 1987 that a junction box did not have a weep hole (Violation B which was admitted by the licensee). The licensee considered it an isolated case, but later found 155 others. Although prompt and extensive corrective actions were not taken for all of the identified violations, the licensee did so for 1 of the 2 problems and therefore 25% mitigation is appropriate.

3. Past Performance - Reduction by as much as 100% of the base civil penalty may be given for good prior performance in the general area of concern. On the other hand, the base civil penalty may be increased by as much as 100% for prior poor performance in the general area of concern. In this case, neither escalation or mitigation was deemed appropriate since the NRC has not conducted prior broad inspections in this area and therefore has an inadequate basis for judging past performance.
4. Prior Notice - The base civil penalty may be increased by as much as 50% for cases where the licensee had prior knowledge of a problem as a result of a licensee audit, or specific NRC or industry notification. In this case, the licensee has prior notice about the junction box problem in the form of IE Information Notice 84-57, a previous NRC violation (50-461/87026-03(b)), and a licensee Nonconforming Material Report dated September 16, 1986. Therefore, because the licensee had prior notice on one of the violations 25% escalation is appropriate.
5. Multiple Occurrences - The base civil penalty may be increased as much as 50% where multiple examples of a particular violation were identified during the inspection period. Based on numerous examples (196 AMP KYNAR butt splices and 156 junction boxes) and the numerous systems involved, the base civil penalty was increased by 50 percent.

In its presentation of "Other Extenuating Circumstances," the licensee maintains that splice-to-splice contact is not a realistic possibility. Despite the licensee's assertion, the NRC staff concludes that the existence of a splice-to-splice contact is a realistic possibility where a mass of wires and splices are confined to the volume of an actuator casing. Therefore, these devices should have been tested in the splice-to-splice configuration, since this represents a possible failure mode. This matter was addressed previously in the Appendix as was the NRC staff's revised position relative to Violation C.

As a result of the above considerations, the NRC has determined that a civil penalty increased 50% above in the base civil penalty is appropriate.

### III. NRC Conclusions

The NRC staff has concluded that Violation A did occur as stated in the Notice of Violation and no basis has been provided for remission or mitigation of the civil penalty. Accordingly, the proposed civil penalty in the amount of \$75,000 should be imposed.

OCT 20 1988

Illinois Power Company

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