

## NOTICE OF VIOLATION

Commonwealth Edison Company  
Braidwood Nuclear Power Station, Units 1 and 2

Docket Nos. 50-456; 457  
License Nos. NPF-72; 77

During an NRC inspection conducted December 15-19, 1997, violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," NUREG 1600, the violations are listed below:

- A. 10 CFR 50.65(b) established the scope of the monitoring program for selection of safety-related and nonsafety-related structures, systems, or components (SSCs) to be included within the maintenance rule (MR) program. The monitoring program shall include safety-related SSCs that are relied upon to remain functional during and following design basis events to ensure the integrity of the reactor coolant pressure boundary, the capability to shut down the reactor and maintain it in a safe shutdown condition, and the capability to prevent or mitigate the consequences of accidents that could result in potential offsite exposure comparable to the 10 CFR, Part 100 guidelines. The monitoring program shall also include nonsafety-related SSCs that are relied upon to mitigate accidents or transients, or are used in the plant emergency operating procedures, or whose failure could prevent safety-related SSCs from fulfilling their safety-related function, or whose failure could cause a reactor scram or actuation of a safety-related system.

Contrary to the above, the licensee failed to include two SSCs within the scope of the maintenance rule as required. Specifically, the following SSCs should have been originally included within the scope of the maintenance rule but were not:

1. As of December 8, 1997, the licensee failed to include the equipment associated with function IP-01, a nonsafety-related instrument power function that provided inverter trouble alarms in the main control room and is used in the emergency operating procedures, in the scope of the MR rule program.
2. As of December 8, 1997, the licensee failed to include the equipment associated with function RD-02, a nonsafety-related rod drive system that provided reactor trip breaker indication in the main control room and is used in the emergency operating procedures, in the scope of the MR program.

This is a Severity Level IV violation (Supplement I).

- B. 10 CFR 50.65(a)(1) states, in part, that holders of an operating license shall monitor the performance or condition of SSCs, as defined by 10CFR 50.65(b), against licensee established goals, in a manner sufficient to provide reasonable assurance that such SSCs are capable of fulfilling their intended functions. When the performance or condition of a SSC does not meet established goals, appropriate corrective action shall be taken.

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10 CFR 50.65(a)(2) states that the monitoring as specified in 10 CFR 50.65(a)(1) is not required where it has been demonstrated that the performance or condition of a SSC is being effectively controlled through the performance of appropriate preventive maintenance, such that, the SSC remains capable of performing its intended function. 10 CFR 50.65(c) states that, the requirements of this Section shall be implemented by each licensee no later than July 10, 1996.

Contrary to 10 CFR 50.65(a)(2), the licensee had not demonstrated that the performance or condition of SSCs within the scope of 10 CFR 50.65 were being effectively controlled through the performance of appropriate preventive maintenance, as evidenced by the following examples:

1. Prior to December 5, 1997, the licensee had elected to not monitor the performance or condition of the auxiliary building drain system leak detection function pursuant to the requirements of section (a)(1). The prior election was still in effect as of December 5, 1997, by which date the licensee had not demonstrated that the performance or condition of the auxiliary building drain system leak detection function had been effectively maintained by performing appropriate preventive maintenance under the requirements of 10 CFR 50.65(a)(2). Specifically, the licensee failed to establish an adequate measure to evaluate the effectiveness of the performance of appropriate preventive maintenance on the auxiliary building drain system leak detection function prior to placing these SSCs under section (a)(2). The licensee's sole basis for demonstrating effective preventive maintenance for this function was the criterion that the SSCs have less than or equal to two functional failures per building floor elevation per two years not to exceed four functional failures. This criterion would allow an excessive failure rate for most of the SSCs monitored. Most of SSCs monitored under this performance measure had a surveillance frequency of five years which, for some building floor elevations, resulted in average of four demands per two years thereby allowing a 50 percent failure rate. Multiple failures of the auxiliary building drain leak detection function SSCs would not demonstrate performance of effective preventive maintenance because the auxiliary building floor drain system leak detection function SSCs would not have been maintained such that they remained capable of performing their intended functions. Therefore, the licensee's basis for placing the auxiliary building floor drain system leak detection function SSCs under the requirements of section (a)(2) was inadequate and the auxiliary building floor drain system leak detection function SSCs should have been monitored in accordance with section (a)(1).
2. Prior to December 5, 1997, the licensee had elected to not monitor the performance or condition of the communications, turbine over-speed protection, cathodic protection, and digital rod position indication SSCs pursuant to the requirements of section (a)(1). The prior elections were still in effect as of

December 5, 1997 by which date the licensee had not demonstrated that the performance or condition of these SSCs had been effectively maintained by performing appropriate preventive maintenance under the requirements of section (a)(2). Specifically, the licensee failed to establish adequate measures to evaluate the effectiveness of the performance of appropriate preventive maintenance on these SSCs prior to placing them under section (a)(2). The licensee's basis for demonstrating effective preventive maintenance for these SSCs was that the following plant level performance measures had not been exceeded due to failures of these SSCs: less than or equal to two unplanned manual or automatic reactor trips while critical per unit per two year period, less than or equal to two safety system actuations per unit per two year period, less than or equal to four percent unplanned capacity loss factor per unit per two year period, less than or equal to two unplanned entries into higher level of risk monitoring per unit per outage period, and no entries into Unusual Event, Alert, Site Emergency, or General Emergency classifications. These plant level performance measures would allow an excessive failure rate because failures of these SSCs would not consistently affect the performance measures. Multiple functional failures of the these SSCs could occur that would not be detected using plant level performance measures and this would not demonstrate the performance of effective preventive maintenance for these SSCs to remain capable of performing their intended function. Therefore, the licensee's basis for placing these SSCs under the requirements of section (a)(2) was inadequate and these SSCs should have been monitored in accordance with section (a)(1).

This is a Severity Level IV violation (Supplement I).

With respect to Item A, the inspection showed that actions had been taken to correct the identified violation and to prevent recurrence. Consequently, no reply to the violation is required and we have no further questions regarding this matter. With respect to Item B, pursuant to the provisions of 10 CFR 2.201, Commonwealth Edison Company is hereby required to submit a written statement or explanation to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555, with a copy to the Regional Administrator, Region III, and a copy to the NRC Resident Inspector at the facility that is the subject of this Notice of Violation 30 days of the date of the letter transmitting this Notice of Violation (Notice). This reply should be clearly marked as a "Reply to a Notice of Violation" and should include for each violation: (1) the reason for the violation, or, if contested, the basis for disputing the violation, (2) the corrective steps that have been taken and the results achieved, (3) the corrective steps that will be taken to avoid further violations, and (4) the date when full compliance will be achieved. Your response may reference or include previous docketed correspondence, if the correspondence adequately addresses the required response. If an adequate reply is not received within the time specified in this Notice, an Order or a Demand for Information may be issued as to why the license should not be modified, suspended, or revoked or why such other action as may be proper should not be taken. Where good cause is shown, consideration will be given to extending the response time. Because

your response will be placed in the NRC Public Document Room (PDR), to the extent possible, it should not include any personal privacy, proprietary, or safeguards information so that it can be placed in the PDR without redaction. However, if you find it necessary to include such information, you should clearly indicate the specific information that you desire not to be placed in the PDR, and provide the legal basis to support your request for withholding the information from the public.

Dated at Lisle, Illinois  
this 30th day of January 1998