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ComEd

February 27, 1998

Document Control Desk
US Nuclear Regulatory Commission
Washington, D.C. 20555

Subject: Reply to Notice of Violation
NRC Inspection Report No: 50-456(457)/97018
Braidwood Nuclear Power Station Units 1 and 2
NRC Docket Numbers 50-456 and 50-457

Reference: J. A. Grobe letter to O. D. Kingsley dated January 30, 1998, transmitting
Notice of Violation from Inspection Report 50-456(457)/97018

During the Maintenance Rule inspection which was completed on December 19, 1997, two Severity Level IV violations were identified. These violations are documented in the reference specified above. Because the actions taken in response to a violation associated with the scope of the monitoring program were determined to be sufficient during the inspection period, no response was required for that violation. ComEd's response to the other violation associated with performance monitoring is included in the attachment to this letter.

Braidwood Station has continued with an established improvement plan to address Maintenance Rule program weaknesses. At this time, the station is focusing on an (a)(3) Periodic Assessment which is evaluating the effectiveness of the Maintenance Rule Program. Following the completion of this assessment, the results will be evaluated and corrective actions or enhancements will be developed as appropriate and tracked to completion. In addition, details from the assessment will be shared with the other ComEd Nuclear Stations.

The following commitments are made in the attachment to this letter:

- New performance criteria for the cathodic protection system (GD) will be developed and submitted to the Maintenance Rule Expert Panel for approval. In addition, a historical review of performance will be conducted for this system using the revised performance criteria to determine if the system should be placed in the (a)(1) or (a)(2) monitoring status.

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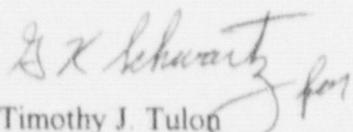
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- BwAP 2300-2, "Maintenance Rule Implementation Program," will be reviewed and revised to provide information on what to consider when plant level performance criteria will be used as the only monitoring mechanism for in-scope systems, structures, and components. In addition, guidance on development of performance criteria and allowable failure rates will be provided. Following the procedure changes, appropriate training will be conducted.

If your staff has any questions or comments concerning this letter, please refer them to Terrence Simpkin, Braidwood Regulatory Assurance Supervisor, at (815) 458-2801, extension 2980.


Timothy J. Tulon
Site Vice President
Braidwood Nuclear Generating Station

Attachment

cc: A.B. Beach, NRC Regional Administrator, Region III
S. Bailey, Project Manager, NRR
C.J. Phillips, Senior Resident Inspector
F. Niziolek, Division of Engineering, Office

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ATTACHMENT 1

REPLY TO NOTICE OF VIOLATION

(50-456,457/97018-B)

- 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.

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

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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 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).

REASON FOR THE VIOLATION

The performance monitoring criteria selected for the communications, turbine over-speed protection, cathodic protection, and digital rod position indication structures, systems, or components (SSCs) did not appropriately monitor the associated functions.

The depth of the original reviews conducted when establishing performance criteria for the above systems was inadequate to identify the appropriate criteria for monitoring system performance.

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The failure to assign more restrictive criteria for the auxiliary building drain system leak detection function (WF system) was the result of station personnel not adequately comparing the approved number of functional failures with the frequency at which the associated components are calibrated. Considering the five year calibration frequency and the performance criteria allowing two functional failures per elevation per two years, a failure rate of 50 percent could result.

CORRECTIVE ACTIONS TAKEN (TO BE TAKEN) AND RESULTS ACHIEVED

Adequate performance criteria for the communication system (CQ), turbine overspeed function (EH), and auxiliary building floor drain system (WF), were developed and presented to the Expert Panel. In addition, two year historical reviews were conducted to determine if the systems had exceeded the newly adopted performance criteria. Results from these reviews were presented to the Expert Panel. A recommendation to return the CQ and EH systems to (a)(2) status was made. This was approved by the Expert Panel in December, 1997. The WF system retained the (a)(1) status and corrective actions continue to be pursued.

New performance criteria for the cathodic protection system (GD) will be developed and submitted to the Maintenance Rule Expert Panel for approval. In addition, a historical review of performance will be conducted for this systems using the revised performance criteria to determine if the system should be placed in the (a)(1) or (a)(2) monitoring status.

The (a)(3) assessment currently in progress includes an action to review performance criteria for all systems.

ACTIONS TO BE TAKEN TO PREVENT RECURRENCE

BwAP 2300-2, "Maintenance Rule Implementation Program," will be reviewed and revised to provide information on what to consider when plant level performance criteria will be used as the only monitoring mechanism for in-scope systems, structures, and components. In addition, guidance on development of performance criteria and allowable failure rates will be provided. Following the procedure changes, appropriate training will be conducted.

DATE WHEN FULL COMPLIANCE WAS ACHIEVED

Full compliance will be achieved by April 15, 1998, when all of the specified performance criteria changes are to be approved and in place.