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October 28, 1996

Document Control Desk
U.S. Nuclear Regulatory Commission
Washington D.C. 20555

Subject: Reply to Notice of Violation from NRC Integrated Inspection Report 50-456(457)/96011
Braidwood Nuclear Power Station Units 1 and 2
NRC Docket Numbers 50-456 and 50-457

Reference: 1) J. L. Caldwell letter to H. G. Stanley dated October 2, 1996, transmitting
Notice of Violation from NRC Integrated Inspection Report 50-456(457)/96011

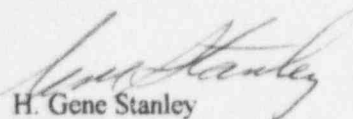
Enclosed is ComEd's response to the Notice of Violation (NOV) which was transmitted with the letter identified in Reference 1. The cited NOV was characterized as Severity Level IV and requires a written response. The required response, including the actions taken in response to the NOV, are addressed in the attachment to this letter.

Braidwood Station is aware of the significance of weaknesses in the area of procedure adherence and is striving to improve performance in that area. To assist in this effort, an independent consultant was utilized to perform a common cause assessment of procedure adherence at Braidwood Station. Action items were generated to address the recommendations which resulted from this assessment. For example, several administrative procedures have been reviewed for overall clarity, procedure classifications will be evaluated, and field monitoring will be modified in the Operations area to ensure workers adhere to Human Performance Standards.

The following specific commitment to the NRC included in Attachment 1 remains to be completed:

- Effectiveness reviews will be performed to evaluate the corrective actions taken for both procedure adherence violation occurrences. The review for the temporary alteration issue will be tracked by NTS # 45620096047ER and the review for the breaker mispositioning event will be tracked by NTS # 45720096024ER.

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.


H. Gene Stanley
Site Vice President
Braidwood Station

Attachment

cc: A. B. Beach, NRC Regional Administrator, Region III
R. R. Assa, Project Manager, NRR
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ATTACHMENT 1

REPLY TO NOTICE OF VIOLATION

VIOLATION (50-456/96011-04a)

Technical Specification 6.8.1.a requires that procedures be established, implemented, and maintained for activities covered in Appendix A of Regulatory Guide 1.33. Regulatory Guide 1.33, Appendix A, requires procedures for administrative control of jumpers and instructions for energizing onsite electrical systems.

- a. Procedure BwAP 400-9, "Maintenance Alterations," stated that if a component with an alteration was declared operable, then any remaining temporary alterations would be processed in accordance with BwAP 2321-18.

Procedure BwAP 2321-18, "Temporary Alterations," stated that a work request with a maintenance alteration form would not be used to track temporary installation, removal, or replacement of equipment if the equipment was of different form, fit, or function than the original; required different operating procedures; or required a change to plant design documents.

Contrary to the above, on July 9, 1996, ventilation damper controller, 0PDC-VW008, which had been altered by the installation of a jumper, was declared operable, and a work request with a maintenance alteration form was used to track the alteration. The installation of the jumper rendered the controller different in form from the original controller and required different operating procedures for the controller.

REASON FOR THE VIOLATION:

The ventilation damper controller alteration had been tracked by a maintenance alteration form because Operations, the Instrument Maintenance Work Analyst, and System Engineering failed to properly identify the jumper installation as a Temporary Alteration. During work package preparation to troubleshoot and repair the controller (0PDC-VW008A), the Work Analyst determined that the Maintenance Alteration Procedure (BwAP 400-9) would track and control the jumper installed in the work package. This jumper would aid Operations in maintaining the system operational to allow future containment releases to be done as needed.

In addition to the workers having a preconceived idea that the Maintenance Alteration Procedure was sufficient, the violation also resulted from their misjudgement and poor questioning attitudes. Personnel discussed the idea of using the Temporary Alteration Procedure, however the decision instead was to complete a 10CFR50.59.

CORRECTIVE ACTIONS TAKEN AND RESULTS ACHIEVED:

A pneumatic jumper had been used appropriately on July 8, 1996, to allow Radwaste Building Supply Dampers to open during a containment release. Following this release, the jumper was removed. Soon after, personnel began taking actions to repair the dampers. To complete the necessary tasks and still allow the VW system to be available for future releases, the IM Work Analyst revised the work instructions to allow the installation of a pneumatic jumper to open the supply dampers as necessary. This jumper was

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VIOLATION (50-456/96011-04a)

installed on July 9, 1996. None of the individuals involved at this point believed the jumper installation was a temporary alteration.

Following a review of the Shift Engineer's turn-over on July 10, 1996, the Auxiliary System Group Leader investigated and found the VW supply dampers full open by pneumatic jumper with the system in operation. Several days later, after the control loop for both supply dampers had been returned to service, the same individual observed that the VW system was still running with a jumper installed. (The dampers had been oscillating excessively and were unable to reach a steady state condition to control differential pressure). He walked down the system and found that the transmitter output signal to the indicator had been disconnected and would not be able to provide a differential building pressure reading. As a result, the System Engineer notified the Instrument Maintenance Supervisor. A temporary indicator (water column gauge) was installed to the transmitter input sensing line to provide a differential pressure reading while repair/calibration of the transmitter was being done. Operations was also notified of this problem; they monitored the differential building pressure twice per shift to determine whether adjustments were necessary. In addition, System Engineering performed a 10CFR50.59 evaluation. On July 25, 1996, Instrument Maintenance installed a new transmitter, calibrated the control loop, and returned the system to service.

CORRECTIVE ACTIONS THAT WILL BE TAKEN TO AVOID FURTHER VIOLATION:

BwAP 400-9, "Maintenance Alterations," was revised. The revision was approved on September 13, 1996, for implementation on October 7, 1996. The revision now includes a "Limitations and Actions" section containing some newly added restrictions on Maintenance Alterations. For example, alterations that place a system, or part of a system, in operation, are required to be reviewed either by using BwAP 2321-18, "Temporary Alterations," or by performing a safety evaluation per BwAP 1205-6, "Performance of 10CFR50.59 Safety Evaluations and Screenings." In addition to the added requirements, steps were clarified related to unrestored Maintenance Alterations when releasing, or partially releasing, equipment back to Operating.

BwAP 2321-18, "Temporary Alterations", and BwAP 2321-18T11, "Determination of Temporary Alterations" were reviewed by the Site Engineering Manager, Configuration Management Supervisor, and the Temporary Alteration Coordinator to determine whether clarifications were needed on when to use the Temporary Alteration Procedure. BwAP 2321-18, was determined to be technically correct concerning what a temporary alteration is and how it is to be controlled, including during maintenance and Out of Service activities. In addition, BwAP 2321-18T11 was found to provide sufficient guidance on classifying work as a temporary alteration.

Training was provided to the following departments on BwAP 400-9 and BwAP 2321-18:

- Instrument Maintenance: Tailgate was completed on September 19, 1996.
- Electrical Maintenance: Tailgate was completed by September 29, 1996.
- Mechanical Maintenance: Tailgate was held on September 24, 1996.
- Operations: Information on the procedures was distributed to all Operations personnel and individuals involved in license requalification training. This was completed by October 1, 1996.

ATTACHMENT I

REPLY TO NOTICE OF VIOLATION

VIOLATION (50-456/96011-04a)

- System Engineering: Training was provided to System Engineering personnel on September 25, 1996.
- Site Engineering: This department completed the training on October 7, 1996.
- Construction: Training was completed by October 3, 1996.

An effectiveness review will be performed on the corrective actions listed above. This action is being tracked to completion by NTS # 45620096047ER.

DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED:

Full compliance was achieved on July 25, 1996, when Instrument Maintenance installed a new transmitter, calibrated the control loop, and returned the system to service.

VIOLATION (50-456/96011-04b)

- b. Procedure BwOP MP-8, "Restoring Unit 2 Main Generator, Main Power Transformers 2E and 2W, and Unit Auxiliary Transformers 241-1 and 241-2," directed that breaker 2581, the Unit Auxiliary Transformer 241-2 feed to 6.9 kilovolt bus 258, be racked in.

Contrary to the above, on May 12, Unit Auxiliary Transformer 241-2 was restored and breaker 2581 was not racked in.

REASON FOR THE VIOLATION:

The Field Supervisor turnover from day shift to afternoon shift (May 10, 1996) failed to include a note that BwOP MP-8, "Restoring Unit 2 Main Generator, Main Power Transformers 2E and 2W, and Unit Auxiliary Transformers 241-1 and 241-2," was in progress to restore the Unit Auxiliary Transformer. During the afternoon shift on the same day, the Unit 2 Supervisor was notified that breaker trip testing had been completed, which was the reason why the breakers were in the "TEST" position. This individual placed in his turnover that the breakers needed to be racked into the connect position. Based on this, an Equipment Operator on the midnight shift (May 12, 1996) was instructed to rack in the breakers. The Unit 2 Supervisor and the Equipment Operator failed to adequately communicate and verify the instruction to rack the specific breakers in the connect position (the EO thought he was told to rack in two breakers, while the NSO thought he told the EO to rack in three breakers). In addition, inadequate communications occurred when the Equipment Operator called to inform the Unit 2 Supervisor that the breakers had been racked in the connect position. Shortly after the discussion, the EO turned in the caution cards for the two breakers that were racked in as required. Subsequently, the Unit 1 Supervisor offered to clear the caution cards out of the log to assist the Unit 2 Supervisor. This individual did not question the status of the caution cards in the Unit 2 Supervisor's "in" basket prior to clearing them.

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VIOLATION (S0-456/96011-04b)

CORRECTIVE ACTIONS TAKEN AND RESULTS ACHIEVED:

After it was determined that the breaker testing was completed, the caution card was cleared, the breaker was racked into the connect position, and a functional test was performed on the breaker. In addition, all other 6.9 switchgear cubicles were checked for irregularities. The caution card log was also reviewed to ensure all cards that were hanging were necessary.

CORRECTIVE ACTIONS THAT WILL BE TAKEN TO AVOID FURTHER VIOLATION:

Training on three way communications is included as part of initial and continuing Operations Training. This problem has been added as a discussion item to the lesson plan on communications given to Operations personnel.

The event was discussed with the Field Supervisor involved in the event regarding the actions required to be taken when turning over information from one shift to another.

The necessity for procedures in progress to be discussed in turnover was discussed with all Field Supervisors. The importance of taking procedures to completion for configuration control purposes was stressed.

The event was discussed with the Unit 2 Supervisor who gave work instructions to the Equipment Operator to reinforce the need to provide clear direction and to properly communicate work instructions when assigning tasks.

Communication standards and the need to use three way communications was discussed with the Unit Supervisor and Equipment Operator involved in the event.

The importance of having a questioning attitude and understanding/verifying work status prior to accepting a task was stressed with the Unit 1 Supervisor.

Because operations personnel failed to self check to ensure the line-up/restoration was what was expected, the event circumstances were discussed with Operations personnel via tailgate sessions to reinforce the importance of using the Braidwood Standards and questioning attitudes.

The importance of accurate record keeping was tailgated with shift personnel based on circumstances from this event where the Equipment Operator rounds documented that both Bus 258 Cubicle 6 and Bus 256 Cubicle 4 were in the "test" position, when actually only Bus 256 Cubicle 4 was in this condition.

Changes have been made to the turnover process which are expected to have a positive impact. Operators now come in one-half hour before the start of their shift and begin turnover with the current crew. A Pre-shift meeting is held with the oncoming crew and this meeting is held outside of the control room to allow those in attendance to remain focused on the turnover discussion.

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VIOLATION (50-456/96011-04b)

Another change made to improve performance in operations is that there are now 2 NSOs assigned per unit. One is responsible for monitoring the reactor panel and the other is primarily responsible for administrative tasks.

An effectiveness review for this breaker mispositioning event will be completed and tracked by NTS # 45720096024ER.

DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED:

Full compliance was achieved when breaker 2581 was racked into the connect position and a successful functional test was performed on the breaker.