



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
799 ROOSEVELT ROAD
GLEN ELLYN, ILLINOIS 60137

AUG 10 1992

DAD/DCB
(RIDS)

Docket No. 50-456
Docket No. 50-457

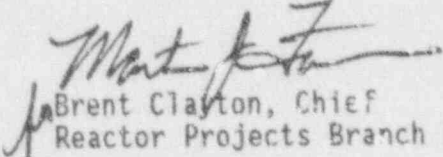
Commonwealth Edison Company
ATTN: Mr. Cordell Reed
Senior Vice President
Opus West III
1400 Opus Place
Downers Grove, IL 60515

SUBJECT: NOTICE OF VIOLATION (NRC INSPECTION REPORTS NO.
50-456/92007(DRP); 50-457/92007(DRP))

Dear Mr. Reed:

This will acknowledge receipt of your letter dated June 5, 1992, in response to our letter dated May 8, 1992, transmitting a Notice of Violation associated with Inspection Reports No. 50-456/92007(DRP) and No. 50-457/92007(DRP). These reports summarize the results of a routine inspection at your Braidwood Nuclear Power Station, Units 1 and 2. We have reviewed your corrective actions and have no further questions at this time. These corrective actions will be examined during future inspections.

Sincerely,


Brent Clayton, Chief
Reactor Projects Branch 1

Enclosure: Letter dated June 5, 1992

See Attached Distribution

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cc w/enclosure:

M. Wallace, Vice President,
PWR Operations
T. Kovach, Nuclear Licensing
Manager
T. Simpkin, Nuclear Licensing
Administrator
K. Kofron, Station Manager
A. Haeger, Regulatory Assurance
Supervisor
DCD/DCB (RIDS)
OC/LFDCB
Resident inspectors, Braidwood,
Byron, Zion
D. W. Cassel, Jr., Esq.
R. Hubbard
J. W. McCaffrey, Chief, Public
Utilities Division
Licensing Project Manager, NRR
R. Newmann, Office of Public
Counsel, State of Illinois Center



Commonwealth Edison
1400 Opus Place
Downers Grove, Illinois 60515

June 5, 1992

U.S. Nuclear Regulatory Commission
Washington, DC 20555

Attn: Document Control Desk

Subject: Braidwood Nuclear Power Station Unit 1 and 2
Response to Notice of Violation
Inspection Report Nos. 50-456/92007; 50-457/92007
NRC Docket Numbers 50-456 and 50-457

Reference: B. Clayton letter to C. Reed dated May 8, 1992,
transmitting NRC Inspection Report
50-456/92007; 50-457/92007

Enclosed is Commonwealth Edison Company's (CECo) response to the Notice of Violation (NOV) which was transmitted with the reference letter and Inspection Report. The NOV cited one Severity Level IV violation requiring a written response. The violation concerns implementation of procedures. CECo's response is provided in Attachment A.

Braidwood Station is concerned with this violation in light of the recent number of personnel errors and is taking aggressive action to improve in this area. A brief summary of Braidwood's initiatives is included in Attachment B.

If your staff has any questions or comments concerning this letter, please refer them to Denise Saccomando, Compliance Engineer at (708) 515-7285.

Sincerely,

A. L. Kovach for

T.J. Kovach
Nuclear Licensing Manager

Attachments

cc: A. Bert Davis, NRC Regional Administrator - RIII
R. Pulsifer, Project Manager - NRR
S. Dupont, Senior Resident Inspector

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ATTACHMENT A

RESPONSE TO NOTICE OF VIOLATION
INSPECTION REPORT 50-456/92007; 50-457/92007

VIOLATION (456(457)/92007-01):

Technical Specification (TS) 6.8.1 requires that written procedures be established, implemented, and maintained covering activities referenced in Appendix A of Regulatory Guide 1.33, Revision 2, February 1978.

Contrary to the above:

- a. On February 13, 1992, licensee personnel failed to comply with station procedure BwAP 330-1, "Station Equipment Out of Service Procedure," when work was mistakenly initiated on the "B" hydrogen recombiner after the "A" recombiner was taken out-of-service, resulting in entry into TS Limiting Condition for Operation (LCO) 3.0.3.
- b. On March 7, 1992, licensee personnel failed to recognize that the boron concentration of the 1A Safety Injection accumulator was above the TS limits, as specified in station procedure 1BwOS SI-1a, "Safety Injection Systems," resulting in delayed entry into TS LCO 3.5.1 for an inoperable accumulator.
- c. On March 15, 1992, licensee personnel failed to comply with station procedure BwAP 330-1, "Station Equipment Out of Service Procedure," when the wrong fuses were pulled to support the out-of-service for valve 2MS046, resulting in a reactor trip.

REASON FOR THE VIOLATION 456(457)/92007-01a:

The primary cause of the February 13, 1992, event was the failure of a mechanic to perform an out of Service (OOS) verification and a self check. The Mechanical Maintenance Senior Mechanic (MMD-A) was not aware that there was another recombiner on the Unit 1 side of the auxiliary building. The MMD-A failed to match the component equipment identification (EID) listed in the package for the OA recombiner with the EID label on the recombiner in the field. Additionally, the MMD-A failed to walk down the OOS. The MMD-A believed that the OOS walkdown previously performed by the Electrical Maintenance Department was sufficient. Observing an OOS tag hanging on a valve close to the OB recombiner, the MMD-A incorrectly assumed that it was for the work to be performed.

Contributing to this event was the failure of the Mechanical Maintenance Supervisor (MMD-S) to clarify the duties and task to his crew. The job turnover from EMD to MMD was conducted at the worker level, but should have taken place at the supervisory level. Consequently, an inadequate pre-job briefing was conducted between the MMD-S and the MMD-A. No pre-job briefing was conducted with the other MMD crew members.

Another contributing cause to the event was station policies and procedures concerning out-of-service card verification, and self checking were not adequately understood by the personnel involved in the event. Consequently, the actual practices employed by the workers for this job did not meet management's expectations.

An additional contributing cause was unclear wording in the package. The step that required the MMD-S to sign for coordinating the OOS with EMD, and relevant information for identification of the equipment's location was not clearly presented. Braidwood Maintenance had previously instituted corrective actions on work package improvements on September 25, 1991, via Maintenance Memo 200-16, "Standardized Nuclear Work Request (NWR) Packages." This memo provides for improved clarity in the work package and pre-job briefing instructions for the maintenance supervisors. The OB recombiner work package had been prepared prior to September 25, 1991 and did not contain these enhancements.

CORRECTIVE STEPS TAKEN AND RESULTS ACHIEVED:

After recognizing that the MMD crew had disabled the OB recombiner, the Shift Engineer immediately directed the MMD-A to begin its reassembly and entered Technical Specification LCO 3.0.3. The OB recombiner was promptly reassembled, started, and checked for leakage. No deficiencies were found. The OB recombiner was declared operable and the LCO was exited.

The MMD-A was counselled by the Master Mechanic on procedural adherence and the importance of self checking. Additionally, the MMD-S was counselled on the need to conduct an adequate pre-job briefing to assure that his crew has a clear understanding of the task. Both the MMD-S and the MMD-A received administrative disciplinary action.

Maintenance supervisors have been instructed to conduct enhanced pre-job briefing open work packages prepared prior to the issuance of Maintenance Memo 200-16.

CORRECTIVE STEPS THAT WILL BE TAKEN TO AVOID FURTHER VIOLATION:

The station is evaluating potential team work enhancements, such as requiring work package turnover between departments to be held at the supervisory level and expanding pre-job briefings beyond the lead worker level. This evaluation will be completed by June 30, 1992.

A review of the procedure involving out-of-service verification, will be performed. Revisions will be made to the procedure, as necessary, to reflect the proper station practice. This action will be completed by June 30, 1992. Appropriate training will then be conducted for each of the changes made to the procedure.

DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED:

Full compliance was achieved on February 13, 1992, when the OB hydrogen recombiner was reassembled, tested satisfactorily, and declared operable.

REASON FOR THE VIOLATION 456(457)/92007-01b:

The cause of the event on March 7, 1992, was personnel error by the Station Control Room Engineer (SCRE) and the Chemistry Laboratory Supervisor (CLS).

The SCRE failed to recognize that the 1A accumulator boron concentration sample result was above the Technical Specification limit, even though the required concentration range was adjacent to the place provided for documenting the sample result. The SCRE believed that as long as the boron concentration was greater than 2000 ppm, it was acceptable. Two thousand ppm is the lowest boron concentration allowed by Technical Specifications for the refueling water storage tank.

The CLS was aware that the boron concentration was above the 2100 ppm limit. The CLS signed the section of 1BwOS SI-1A which addresses the sample limits as being satisfactory. The CLS believed the signature was for sampling and analysis completion within the 6 hour time clock. Since the sample and analysis were done prior to expiration, the CLS signed the section without reading the acceptance criteria.

Two other factors contributed to this event. When the sample result was obtained and identified to be outside the range specified on the data sample sheet, the CLS did not notify licensed shift personnel that the sample was out of specification. Additionally, Chemistry did not obtain a confirmatory sample.

CORRECTIVE STEPS TAKEN AND RESULTS ACHIEVED:

At 1357 on March 7, 1992, a nuclear station operator (NSO) was informed of the 1A accumulator boron concentration. The NSO realized that the concentration was above the limit. The 1A accumulator was declared inoperable and a confirmatory sample was requested. At 1602, the boron concentration was determined to be within the limits and the 1A accumulator was declared operable.

The CLS and SCRE were counselled by Senior Station Management on the importance of attention to detail. Both the CLS and the SCRE received appropriate disciplinary action.

The Chemistry Supervisor conducted a tailgate meeting with the Chemistry Department personnel to discuss this event and reporting requirements for samples out of specification.

CORRECTIVE STEPS THAT WILL BE TAKEN TO AVOID FURTHER VIOLATION:

The Chemistry Department will review current station chemistry procedure reporting requirements and confirmatory sample requirements to determine their effectiveness. Chemistry will also review requirements for notifying a licensed shift supervisor for samples determined to be outside Technical Specification limits. Procedure BwAP 330-10A1, "Operability Policy for Previously Identified Items," will be included in this review for chemistry sampling. This review will be completed by June 30, 1992.

DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED:

Full compliance was achieved on March 7, 1992, when the boron sample for the 1A accumulator was within limits.

REASON FOR THE VIOLATION 456(457)/92007-01c:

The cause of the event was personnel error by the NSO. While placing the OOS cards in the auxiliary electric equipment room, the NSO did not recognize that OOS cards #10 and #11 were for fuse 51 and fuse 52 respectively. The NSO read the information on the card and transposed the OOS card number located on the bottom of the card for the fuse number. Fuses 10 and 11 were removed and resulted in the isolation of feedwater to the 2B and 2C steam generators. An automatic reactor trip occurred due to the level in the 2C steam generator reaching the low-low level setpoint of 17%.

CORRECTIVE STEPS TAKEN AND RESULTS ACHIEVED:

The NSO was counselled by the Production Superintendent and the Assistant Superintendent of Operations on the importance of self checking and attention to detail. The NSO received appropriate disciplinary action.

CORRECTIVE STEPS THAT WILL BE TAKEN TO AVOID FURTHER VIOLATION:

Braidwood Operating personnel performed a review of OOS card labeling to examine if the information on the card can be rearranged to reduce the possibility of transpositioning. Recommendations have been transmitted to the Corporate group responsible for the OOS computer program for consideration. Changes to this program are coordinated between CECO's six nuclear stations. Braidwood will follow the Corporate group evaluation of these recommendations.

DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED:

Full compliance was achieved on March 15, 1992, when the incorrectly pulled fuses were replaced and the OOS was correctly performed.

ATTACHMENT B

BRAIDWOOD STATION INITIATIVES

As a result of Braidwood Surveillance Task Force recommendations and concerns about personnel performance and industrial safety, Braidwood Station formed the Human Performance Awareness (HPA) Team in January 1992. The Assistant Superintendent of Maintenance leads the team which is comprised of four bargaining unit and four management members.

The team has developed and implemented a station HPA procedure which covers self checking and station briefings.

The self checking portion of the procedure defines self checking techniques and emphasizes responsibility for self checking by individuals, supervisors and managers.

Three levels of briefings are covered as follows:

- Heightened level of awareness briefings for activities involving multiple work groups.
- Shift briefings for operating crews.
- Pre-job briefings for work group supervisors and their work groups.

The HPA team is training station personnel on the procedure and will be completed by June 15, 1992.

The team will continue to monitor personnel performance and implement added initiatives as necessary.

In March 1992, the Braidwood Station Manager conducted a series of station meetings to communicate management expectations to all station personnel. The Station Manager discussed recent events involving personnel errors and emphasized the need for improvement. Specific department supervisors conducted discussions the next day with their personnel. Followup on the feedback received from these discussions is ongoing.