



**Commonwealth Edison**  
Braidwood Nuclear Power Station  
Route #1, Box 84  
Braceville, Illinois 60407  
Telephone 815/458-2801

January 20, 1995

U.S. Nuclear Regulatory Commission  
Washington, DC 20555

Attn: Document Control Desk

Subject: Braidwood Nuclear Power Station Units 1 and 2  
Reply to a Notice of Violation  
Inspection Report Number  
50-457/94027  
NRC Docket Numbers 50-456; 50-457

References: 1) J. M. Jacobson letter to K. Kaup dated  
December 22, 1994, transmitting  
NRC Inspection Report 50-457/94027

Enclosed is Commonwealth Edison Company's (ComEd) reply to the Notice of Violation (NOV) which was transmitted with the letter and Inspection Report identified in reference 1. The NOV cited a Severity Level IV violation requiring a written response. ComEd's response is provided in the attachment.

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

Karl L. Kaup  
Site Vice President  
Braidwood Station

Attachment

cc: J. B. Martin, NRC Regional Administrator - RIII  
R. R. Assa, Project Manager - NRR  
S. G. Du Pont, Senior Resident Inspector  
K. A. Strahm, Vice President PWR Operations

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ATTACHMENT

REPLY TO A NOTICE OF VIOLATION  
INSPECTION REPORT  
50-457/94027

VIOLATION (457/94027-01):

10 CFR 50.55a (g) (4), Codes and Standards, Inservice Inspection Requirements, requires that throughout the service life of a PWR/BWR nuclear power facility, components which are classified as ASME Code Class 1, 2, or 3 must meet the requirements, ...set forth in Section XI of editions of the ASME Boiler and Pressure Vessel Code and Addenda. Byron/Braidwood USFAR Section 6, Paragraph 6.6.6 states: Evaluation of the examination results and repair procedures for class 2 and 3 components complies with the requirements of Article IWC and IWD-3000 and 4000 of Section XI respectively.

Contrary to the above, on October 23, 1994, repairs made by application of additional weld material to the reinforcement fillet weld of the Unit 2 RHR heat exchanger 2RH02AB nozzle to shell weld No. 2RHXN-1, failed to remove, or reduce to acceptable limits, ultrasonically detected flaws. This repair attempt was in violation of ASME Section XI 1983 edition, Summer 83 Addenda, Article IWC-4000/IWA-4100, which requires the removal or reduction of defects, to Code acceptable limits prior to repair welding.

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

REASON FOR THE VIOLATION:

The reason for this violation is that Site Engineering interpreted the Code differently than the NRC interpreted the Code.

Once the indications in the 2B Residual Heat Removal heat exchanger outlet nozzle were sized, Site Engineering and Construction (SEC) directed the Station to add weld material to the reinforcing fillet weld on the nozzle to increase the total weld size and reduce the indications to less than 60%. This was directed because the overlay was characterized as a weld repair and was believed to be acceptable based on Engineering's interpretation of the Code, Quality Control review, and concurrence of the Authorized Nuclear Inspector. Station management agreed with Engineering's assessment and decided not to remove or reduce the ultrasonically detected flaws prior to adding the weld material.

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INSPECTION REPORT  
50-457/94027

REASON FOR THE VIOLATION (continued):

After several subsequent discussions with the NRC and further evaluation on the use of the fillet weld, SEC concluded that the indications should be ground out and Code weld repairs should be made.

Additionally, the manner in which the fillet weld was factored into the initial structural analysis was not understood when the decision was made to perform the weld overlay.

CORRECTIVE STEPS TAKEN AND RESULTS ACHIEVED:

The indications that exceeded Code requirements were removed. The weld was then repaired, reexamined, and determined to be acceptable.

CORRECTIVE STEPS THAT WILL BE TAKEN TO AVOID FURTHER VIOLATION:

The SEC Engineering Manager will review this event in a tailgate session with his department in an upcoming department meeting. The following expectations will be outlined during this session:

- Improve the process for resolving significant issues. Ownership must be assigned for each issue. The owner must understand his accountability for communication, contingency planning, scheduling, and long term issue resolution.
- Make technical engineering decisions after sufficient thought and careful evaluation to ensure technical and regulatory requirements are met.
- Involve the ComEd technical experts in major technical issues throughout the process of resolving the issues.

This action will be completed by April 30, 1995.

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INSPECTION REPORT  
50-457/94027

CORRECTIVE STEPS THAT WILL BE TAKEN TO AVOID FURTHER VIOLATION  
(continued):

Additional guidance will be requested from ComEd corporate engineering regarding the use of weld overlays and weld repairs. Braidwood Site Engineering will ensure that this guidance is utilized prior to completing the next evaluation of a weld overlay or weld repair.

ComEd has submitted to NRR for review a finite element analysis which included the fillet weld as part of the thickness.

DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED:

Full compliance has been achieved.