

Appendix

NOTICE OF VIOLATION

Commonwealth Edison Company

Docket No. 50-456

As a result of the inspection conducted on October 21-22 and 26-27, 1982, and in accordance with the NRC Enforcement Policy, 47 FR 9987 (March 9, 1982), the following violations were identified:

1. 10 CFR Appendix B, Criterion III, states in part, "Measures shall be established to assure that applicable regulatory requirements and the design basis...as specified in the license application, for those structures and components to which this appendix applies are correctly translated into specifications...and instructions. These measures shall include provisions to assure that appropriate quality standards are specified...and deviations from such standards are controlled."

Commonwealth Edison Company Topical Report CE-1-A, "Quality Assurance Program for Nuclear Generating Stations," Revision 15, Section 3.1, dated January 2, 1981, states in part, "...designs and materials will conform to...standards, regulatory requirements, SAR commitments, and appropriate quality standards as applicable."

Contrary to the above, the following instances of inadequate design control were identified:

- a. The Braidwood FSAR Section 8.2.1.4.2.1 commits to compliance with IEEE 384-1974, which delineates methods of acceptable separation between Class 1E and non-Class 1E cable trays, and states that minimum separation be at least one inch. However, the inspector observed the following instances of safety related trays in physical contact with non-safety trays:

- (1) 1696H C1E and 1713D C1B
- (2) 11335B C1E and 11335F P1B
- (3) Safety Cable 1SX001 and 1689A P1E

Additionally, the horizontal spacing between Class 1E tray node 21398S P2E and non-Class 1E tray 21384T P2B was less than the required one inch.

- b. IEEE 384-1974 further states, "Where plant arrangements preclude maintaining the minimum separation distance, the...circuits shall be run in enclosed raceways that qualify as barriers...." However, as of October 27, 1982, the licensee had not designated barriers on drawings or other appropriate documentation where the minimum separation from non-safety trays could not be met for Class 1E tray Sections 21398T C2E and 12028C C1E.

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

2. 10 CFR Appendix B, Criterion X, states in part, "A program for inspection of activities affecting quality shall be established and executed...to verify conformance with documented instructions, procedures...for accomplishing the activity."

Commonwealth Edison Company Topical Report CE-1-A, Revision 20, Section 10, states in part, "Quality Assurance inspections...will be conducted...during construction...to verify conformance to applicable drawings, instructions, and procedures as necessary to verify quality."

L. K. Comstock and Company Braidwood Procedure 4.3.8, Revision June 3, 1982, Section 3.2.8.1, states in part, "Cables will be routed as designated on the Cable Pull Cards.... There will be no deviations for cables in Class I areas without prior written approval by Commonwealth Edison Lead Electrical Engineer.... In all cases LKC Engineering will be contacted prior to pull if deviations occur."

Contrary to the above, Class 1E cable 1SX001 was not routed as designated per its respective pull card. Additionally, the QC inspection performed to verify proper installation failed to identify the apparent deviation. As a result, the cable inspection report was signed off, although the routing of the cable was not in accordance with the cable pull card.

This is a Severity Level V violation (Supplement II).

3. 10 CFR Appendix B, Criterion V, states in part, "Activities affecting quality shall be prescribed by documented instructions, procedures... and shall be accomplished in accordance with these instructions, procedures...."

Commonwealth Edison Company Topical Report CE-1-A, Revision 14, Section 5, states in part, "The quality assurance actions carried out for...construction...activities will be described in documented instructions, procedures...or checklists. These documents will assist personnel in assuring that important activities have been performed."

L. K. Comstock Braidwood Procedure 4.3.8, Revision June 3, 1982, Section 3.2.11.3, states in part, "Cables which travel in free air and continue to equipment unsupported by electrical raceway shall maintain the following separation. If any field condition prevents compliance with the following separation criteria, work shall halt and the cable pulling foreman shall notify the LKC Field Engineer for resolution." Section 3.2.11.3.2, states, "12" between safety related (Category E, R and N) and non-safety related (Category B) cables."

L. K. Comstock Braidwood Procedure 4.11.1, Revision June 3, 1982, Section 3.2, states in part, "A Nonconformance Report...shall be initiated by Quality Control personnel on detecting of deviations...detailing the nonconformity and applicable standard, or specifications."

Contrary to the above requirements, the inspector observed four locations where the minimum separation criteria between Class 1E and non-Class 1E cables which travel in free air was less than the required twelve inches. In addition, no hold tags were evident in these areas or a Nonconformance Report issued that dealt specifically with the four locations. The following node sections where safety and non-safety cables enter or exit their respective trays were observed to be in apparent violation:

- a. 1696H-C1E and 1713D-C1B
- b. 17771J-C2E and 11771S-K2B
- c. 11798J-C2E and 11798S-K2B
- d. 11721M-C2E and 11837S-K2B

This is a Severity Level V violation (Supplement II).

- 4. 10 CFR Appendix B, Criterion XV, states in part, "Measures shall be established to control materials, parts, or components which do not conform to requirements in order to prevent their inadvertent use or installation. These measures shall include...procedures for identification, documentation...disposition, and notification to affected organizations. Nonconforming items shall be reviewed and accepted, rejected...in accordance with documented procedures."

Commonwealth Edison Company Topical Report CE-1-A, Revision 20, Section 15, states in part, "Items involving construction...which are found nonconforming to the engineering requirements or specifications ...or workmanship standards...will be controlled to prevent their inadvertent use of installation. Nonconforming items are identified, documented and segregated for disposition....Nonconforming items accepted 'as-is' or reworked to an acceptable condition shall be identified through documentation records and in a manner that will establish the condition as installed. When the responsible CECO personnel authorizes acceptance of the item 'as-is,' or rework of the nonconforming item, the action will be documented."

Commonwealth Edison Company Topical Report CE-1-A, Revision 9, Section 14, states in part, "Nonconforming material and equipment will be identified through the use of a Quality Assurance 'Hold tag'.... Such 'Hold'...tags shall only be removed at the direction of Quality Assurance personnel."

Contrary to the above, as of October 24, 1982, measures established by the licensee to identify nonconforming components did not assure the identification of nonconforming equipment as follows:

- a. During a receipt inspection performed on October 2, 1979, the receipt inspector identified five cable reels which arrived with damaged flanges. The receipt inspector suggested and noted on the Receipt Inspection checklist (MRR 5308) that the damaged reels be inspected by CECO QC for recommended action. However, there appears to be no documented evidence that the apparent nonconforming condition was dispositioned or a hold tag or a NCR issued to specifically identify the cable reels or authorize acceptance of the reels. The affected cable reels are as follows: 20 BR, 16 BR, BR-129, BR-131 and BR-165.
- b. The inspector observed a damaged cable reel in the Auxiliary Building lying on the floor at the 426' elevation. There appeared to be no hold tags evident in the immediate area or hold tags physically placed on cable reel BR 12. Consequently, since the cable reel had not been identified there was no mechanism that could prevent its inadvertent use in the field.

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

Pursuant to the provisions of 10 CFR 2.201, you are required to submit to this office within thirty days of the date of this Notice a written statement or explanation in reply, including for each item of noncompliance: (1) corrective action taken and the results achieved; (2) corrective action to be taken to avoid further noncompliance; and (3) the date when full compliance will be achieved. Consideration may be given to extending your response time for good cause shown.

Dated

C. E. Norelius
C. E. Norelius, Director
Division of Engineering and
Technical Programs