

U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Reports No. 50-456/85034(DRS); 50-457/85033(DRS)

Docket No. 50-456; 50-457

License Nos. CPPR-132; CPPR-133

Licensee: Commonwealth Edison Company  
Post Office Box 767  
Chicago, IL 60690

Facility Name: Braidwood Station, Units 1 and 2

Inspection At: Braidwood Site, Braidwood, IL

Inspection Conducted: June 25-27 and July 2-3, 1985

Inspector: *J. F. Norton*  
J. F. Norton

8/6/85  
Date

*Connell C. Williams*  
Approved By: C. C. Williams, Chief  
Plant Systems Section

8/16/85  
Date

Inspection Summary

Inspection on June 25-July 3, 1985 (Reports No. 50-456/85034(DRS);  
50-457/85033(DRS))

Areas Inspected: Routine unannounced inspection to review licensee action on open items and 50.55(e) items. This inspection involved a total of 30 inspector-hours onsite by one NRC inspector.

Results: No violations or deviations were identified.

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## DETAILS

### 1. Persons Contacted

#### Commonwealth Edison Company (CECo)

L. Kline, Licensing and Compliance Supervisor  
\*C. Allen, Licensing Compliance Engineer  
\*P. Barnes, Licensing Engineer  
D. Cecchett, Licensing Engineer  
M. Gorski, Project Construction Engineer, Mechanical  
W. Bruns, Staff Assistant

#### U. S. Nuclear Regulatory Commission (NRC)

\*R. Schulz, Resident Inspector, Construction

\*Denotes those attending the exit interview conducted on July 3, 1985.

### 2. Action on Previous Inspection Items

#### a. (Closed) Open Item (456/81-14-04, Parts A, B, and C)

- (1) Part A: It was determined from a review of gauge records that two "out-of-calibration" tendon stressing gauges were utilized on certain tendons. Although Napoleon Steel Company Incorporated (NSCI), the post tensioning contractor, sent the gauges back to INRYCO for recalibration, no corrective action was taken to identify and correct any potential as-built deficiency caused by the use of the gauges.

Part A Corrective Action: Lift off tests were performed on all tendons which had been stressed with uncalibrated gauges. Although the stress levels of most of the tested tendons were within required values, eight tendons were found with stress levels below the acceptance criteria. However, subsequent appropriate action was taken.

- (2) Part B: CEC Co Nonconformance Report (NCR) No. 137 was issued to address the fact that dome tendons were not being stressed according to the prescribed stressing sequence. The dispositioning of the NCR was improper in that it specified removing and replacing a specific tendon and did not address the violated stressing sequence deficiency.

Part B Corrective Action: NCR No. 329 was issued to correct deficient NCR No. 137. Also, the Region III inspector determined by a records review and personnel interviews that no indication of structural distress were caused by or was otherwise attributable to the out-of-sequence tendon stressing.

- (3) Part C: In January of 1982 a review of post tensioning records revealed that seventeen tendons had been installed in the structure for over 180 days without being greased in accordance with the requirements of installation specification L-2722.

Part C Corrective Action: The deficiency was caused by NSCI personnel misinterpreting the specification requirements. NSCI Procedure 7E (Revision 9) was subsequently revised to clarify greasing requirements. Also, the Region III inspector noted that all tendons affected by the misinterpretation were inspected for rust and/or corrosion prior to stressing. No rejectable conditions were found.

b. (Closed) Open Item (456/81-14-06)

In January 1985 it was discovered that no inspection instruction or procedure had been written to address the requirements in the specifications for unstressed/ungreased tendons installed 90 days or more.

The corrective action to correct this deficiency was to revise NSCI Procedure 7E. The inspector reviewed this procedure and found it acceptable.

c. (Closed) Open Item (456/82-01-03)

Phillips Getschow Company (PGCo), the mechanical contractor, did not have a "Special Lift Procedure" in place. Such a procedure was required for handling of hardware items exceeding 20,000 lbs. or where appropriate for certain items because of other considerations such as material properties, configuration, or safety relatedness.

PGCo completed a review in October 1982, of all hoisted or handled equipment weighing in excess of 20,000 lbs. All damage was noted and reported as being attributable to poor storage practices. Action has been taken to address the storage damage problem. Also, PGCo has incorporated appropriate procedural changes to ensure proper hoisting and handling of special equipment. This action was considered acceptable to the inspector to resolve this issue.

3. Action on 10 CFR 50.55(e) Reports

a. (Open) Item (456/84-07-EE; 457/84-07-EE)

A review of concrete expansion anchor (CEA) installations revealed that certain attributes considered significant to the overall quality of CEA installations were not being evaluated by production and/or QC. Because of this, the need for a more comprehensive CEA installation procedure was recognized by the licensee.

An installation procedure (PCD-08) has been approved and issued to applicable contractors for incorporation into their programs. Also, CECo has issued a procedure to determine installed CEA quality by performing a sample inspection employing a 95% confidence with a 95% reliability acceptance criteria. When this evaluation is completed, a determination will be made to either accept the installations or expand the testing and corrective action programs.

This issue will be reviewed during subsequent NRC inspections.

b. (Open) Item (456/84-17-EE; 457/84-17-EE)

The embedment depths of installed CEA bolts were measured from finished floor levels instead of rough concrete surfaces resulting in recorded embedment depths less than the required minimum in some installations.

For new installations in finished floors, all contractors have been instructed to obtain prescribed embedment depths from Sargent and Lundy (S&L). This practice is to be continued through project completion. Also, S&L has completed a walkdown of the finished floor area and CEA installations to evaluate acceptability and/or rework requirements. Forty-nine installations requiring rework have been identified. Evaluation of CEA installations in the "repaired area" concrete is still in progress.

This issue will be reviewed during subsequent NRC inspections.

4. Exit Interview

The inspector met with licensee representatives (denoted in Paragraph 1) at the conclusion of the inspection. The inspector summarized the findings, as reported herein, which were acknowledged by the licensee. The inspector also discussed the likely information content of the inspection report with regard to documents or processes reviewed by the inspector during the inspection. The licensee did not identify any such documents/processes as proprietary.