

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Reports No. 50-456/86006(DRP); 50-457/86005(DRP)

Docket Nos. 50-456; 50-457

Licenses No. 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: January 27, 1986 through March 29, 1986

Inspector: *Ronald N. Gardner for*
Wayne J. Kropp

4/3/86
Date

Approved By: *Ronald N. Gardner*
Ronald N. Gardner, Chief
Reactor Projects 3A

4/3/86
Date

Inspection Summary

Inspection on January 27, 1986 through March 29, 1986 (Reports No. 50-456/86006(DRP); 50-457/86005(DRP))

Areas Inspected: Routine, unannounced safety inspection of activities with regard to licensee action on previous inspection findings, plant tours, pipe supports, essential service water, and the mechanical contractor audit program. The inspection consisted of 128 inspector-hours onsite by one NRC inspector including 5 inspector-hours onsite during off-shifts.

Results: No violations or deviations were identified.

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DETAILS

1. Persons Contacted

Commonwealth Edison Company (CECo)

- *M. J. Wallace, Project Manager
- C. W. Schroeder, Services Superintendent
- D. L. Shamblin, Project Construction Superintendent
- *G. E. Groth, Assistant Construction Superintendent
- *E. E. Fitzpatrick, Station Manager
- *G. Marcus, Assistant Manager Quality Assurance
- *T. E. Quaka, Site Quality Assurance Superintendent
- W. Vahle, Engineering Manager
- J. W. Giesecker, Engineer
- M. Gorski, Engineer
- *D. Boone, Project Construction Field Engineer
- *E. Wandorf, Engineer
- *P. Barnes, Regulatory Assurance Supervisor
- *L. E. Davis, Assistant Superintendent Technical Services
- *D. Paquette, Maintenance Assistant Superintendent
- *R. Kyrouac, Station Quality Assurance Supervisor
- *D. E. O'Brien, Operations Assistant Superintendent
- *C. J. Tomaszek, Project Startup Superintendent
- *D. L. Cecchetti, Regulatory Assurance
- *A. J. D'Antonio, Regulatory Assurance
- *T. Miosi, Nuclear Licensing Administrator - G.O.
- *T. Simpkin, Regulatory Assurance

The inspectors also contacted other licensee and contractor personnel, including craftsmen, and technical and engineering staff members.

*Denotes those attending the exit meeting on March 27, 1986.

2. Licensee Action on Previous Inspection Findings

a. Violations

(Closed) 456/83-09-02A; 457/83-09-02A: Two drawings were not stamped with field change request (FCR) document numbers. Part of the licensee's corrective action was evaluated and verified for implementation during the inspection period documented in Inspection Reports No. 456/85032; 457/85031. The licensee's corrective action consisted of:

- Stamping drawing M-2539C-4 with FCR L-9194 and drawing M-2542C-121 with FCR L-9988. These drawings were identified in the violation as not being stamped with these FCRs as

required by Phillips Getschow Procedure PGCP-1.1, "Control of Engineering Change Notices and Field Change Requests." Drawings M-2539C-4 and M-2542C-121 were verified to be stamped with the appropriate FCRs during the inspection period documented in Inspection Reports No. 456/85032; 457/85031.

- Intensifying and increasing training in document control activities. The inspector verified that training was conducted in document control activities. This training was conducted with production, engineering, and QC personnel in September 1983.
- Conducting audits to verify that the corrective action was acceptable. One of the audits, Phillips Getschow Audit No. 83-BR15, was conducted July 26, 1983, which commenced prior to the extensive attention placed on document control by Phillips Getschow (August 1983). This audit did identify drawings that were not stamped with the appropriate FCRs or Engineering Change Notices (ECNs). However, subsequent followup audits (September, October, November, December, 1983 and August 1984) reviewed by the inspector revealed no problems with document control. The inspector also reviewed licensee QA Surveillances No. 2981 (June 1983) and No. 3450 (February and March 1984) which were performed to followup on deficiencies noted in document control during the licensee site QA Audit No. 20-83-15 (March 1983) of Phillips Getschow. These surveillances noted no problems with drawing control. Based on the results of the followup audits conducted by Phillips Getschow and the followup QA surveillances by the licensee, the corrective action appears effective.

Since installation activities were performed to the drawings and process documents in the production data packages, the lack of stamping drawings located at the document control stations with the outstanding ECNs and/or FCRs would not directly affect the installation of components. In addition, the review for the impact of an ECN or FCR on installation activities is independent of the stamping of the ECN or FCR on controlled drawing copies. The inspector selected several drawings which were noted in the licensee's Audit No. 20-83-15 as not having been stamped with the appropriate FCR/ECN and verified that the installed component was not affected. This was accomplished by reviewing the production data packages and inspecting the installed component. This item is considered to be closed.

(Closed) 456/85007-02; 457/85007-02: The installation of the containment spray pumps was not in accordance with design drawings. The corrective action consisted of the piping contractor, Phillips Getschow, issuing a Nonconformance Report (NCR) 3963 to document the deficiency in the installation of the Unit 1 and Unit 2 containment spray pumps. The Unit 1 and Unit 2 residual heat removal (RHR) pumps, which are of the same design as the containment spray pumps, were examined by Phillips Getschow and similar deficiencies were identified on each pump. Phillips Getschow issued NCR 3961 to document the

deficiencies with the RHR pumps. Both NCR 3963 and 3961 required the pumps to be reworked in accordance with applicable design drawings. The inspector reviewed the installation records and inspected the pumps and noted no problems. Both NCRs were closed January 30, 1986. The corrective action to avoid further noncompliance includes a Phillips Getschow equipment installation procedure, QCP-B22, and improved equipment grouting control instituted in the last year. The inspector reviewed procedure QCP-B22 and the equipment grouting controls and found them satisfactory. To ensure other equipment does not have deficiencies similar to the containment spray pumps and the RHR pumps, the licensee issued NCR 6083. This NCR provides for reviews of other safety-related equipment pump bases and supporting documentation to ensure correct installation, grouting and inspection. NCR 6083 was closed March 27, 1986. The inspector reviewed the disposition and closure of this NCR with no problems being noted. This item is considered to be closed.

(Closed) 456/85015-06: The licensee's Quality Assurance Department inappropriately closed Nonconformance Report (NCR) 600 and as a result did not assure that conditions adverse to quality were corrected. Parts of the licensee's corrective actions were evaluated and verified for implementation during the inspection periods documented in Inspection Reports No. 456/85032; 457/85031 and 456/85058; 457/85054. The inspector verified that NCR 600, which was reopened, was properly and effectively closed by the licensee's QA Department. NCR 600 was reclosed by Surveillance 5548, on February 26, 1986. The pipe supports associated with NCR 600 were inspected by the licensee's QA department to verify compliance with the design drawings prior to reclosing NCR 600. The inspector selected four of the 14 pipe supports inspected by the licensee's QA department to evaluate their effectiveness. The results of these four inspections are documented in Paragraph 4 of this report. The licensee's response to this violation stated that NCR 744 was issued to identify concerns which were noted during a special audit conducted by Phillips Getschow. NCR 744 was closed March 27, 1986. The inspector reviewed the disposition and closure of this NCR with no problems being noted. This item is considered to be closed.

b. Open Items

(Closed) 456/85038-09; 457/85037-07: The processing of site contractor documents, which identify significant conditions adverse to quality, was not performed in a manner commensurate with the processing of NCRs. The licensee has sent letters to the major site contractors (Newberg, L. K. Comstock, Phillips Getschow, and Pullman) which standardized the approach for processing documents identifying significant conditions adverse to quality. These documents are required to be submitted to the licensee for approval of the proposed resolution. This item is considered to be closed.

No violations or deviations were identified.

3. Plant Tours

The inspector observed work activities in progress, completed work, and plant status during general inspections of the plant. Observations of activities included: storage of electrical raceway components for Unit 2, structural welding, cable tray hanger installation for Unit 2, housekeeping, cable trays, junction boxes, mechanical equipment, and high strength bolting. During this inspection period, the licensee commenced Integrated Hot Functional Testing (IHF). The inspector observed various IHF activities and monitored control room activities. The housekeeping of Unit 1 areas has improved since November. However, one item was discussed with the licensee regarding action to protect the Main Control Board (MCB) from unnecessary exposure to dust and dirt. The doors on the back of the MCB were left open even though there is no work in progress. This item was identified by the licensee management during a tour and management agreed that some action would be taken to ensure the doors remained closed when work was not in progress. The inspector will monitor this area to ascertain the effectiveness of management's action to resolve this issue.

No violations or deviations were identified.

4. Pipe Supports

The following ASME Class 1 supports were examined to verify compliance with design drawings and the ASME code in the areas of weld quality, weld configuration, location and hanger configuration:

<u>Identification</u>	<u>System</u>	<u>Type</u>
1CV06031V	Chemical & Volume Control	Spring Hanger
1SI25004F	Safety Injection	Pipe Clamp
1RH02050R	Residual Heat Removal	Sway Strut
1SI04017S	Safety Injection	Shock Suppressor

The inspector also reviewed the data packages which include the installation traveler, weld issuance tickets, nondestructive examination records, and any closed deficiency documents.

No violations or deviations were identified.

5. Essential Service Water

The licensee informed the inspector of an error in the radiographing of two welds in the Essential Service Water system. During the NRC Construction Appraisal Team (CAT) inspection documented in Inspection Reports No. 456/84044; 457/84040, the CAT inspectors determined that the radiographs provided by the vendor (Southwest Fabricators) for welds SX-36-1-W3 and SX-36-1-W4 were radiographs of the same weld (W3). Therefore, W4 was never radiographed. In order to determine the acceptability of the unradiographed weld (W4), the site independent testing contractor, Pittsburgh Testing Laboratory (PTL) was directed by the licensee to radiograph both welds. The radiographs produced by PTL were provided to the CAT inspectors and

their review and interpretation determined that the welds were acceptable. Subsequently, while reviewing the installed pipe spool, the site mechanical contractor noted that field weld 8A was identified on the pipe as shop weld W3. A field review of the spool and radiographs by the licensee determined that PTL had radiographed field weld 8A as shop weld W3 and shop weld W3 as shop weld W4. This resulted in Southwest Fabricator's shop weld W4 remaining unradiographed. Therefore, the CAT inspectors concern pertaining to the two identical radiographs for shop welds SX-36-1-SW3 and SX-36-1-SW4 is now identified as an unresolved item (456/86006-01; 457/86005-01). At this time, the involved spool is full of water due to testing and cannot be radiographed. The licensee has stated that all three welds (8A, W3, and W4) will be radiographed and evaluated for final disposition when the spool is available for radiographing.

No violations or deviations were identified.

6. Phillips Getschow Audit Program

The inspector reviewed the following Phillips Getschow internal audits for compliance to Phillips Getschow Procedure QAP/BR 12.1, Revision 8, "Site Internal Audits":

<u>Audit No.</u>	<u>Subject</u>	<u>Date</u>
86BR8	Final Line Walk of Components, Supports/ Restraints	February 11-24, 1986
86BR12	Component Support Material and Item Substitution and the Restocking of Deleted or Unused Component Support Material and Items	February 28 - March 4, 1986
86BR5	Mechanical Joint Review/ Retrofit Program	January 20-27, 1986
86BR13	Base Metal Acceptance and Repair for AISC Category I Steel	February 1986
86BR18	Calibration by Outside Source	March 11-13, 1986

The checklists utilized in performing these audits were reviewed by the inspector. The checklists identified the objective evidence evaluated by the auditor during the audit. The audits verified the implementation of the procedures that were being audited. The inspector also reviewed the training and certification files for six lead auditors.

No violations or deviations were identified.

7. Unresolved Items

Unresolved items are matters about which more information is required in order to ascertain whether they are acceptable items, violations, or deviations. An unresolved item disclosed during the inspection is discussed in Paragraph 5.

8. Exit Interview

The inspector met with licensee and contractor representatives denoted in Paragraph 1 during and at the conclusion of the inspection on March 27, 1986. The inspector summarized the scope and results of the inspection and discussed the likely content of this inspection report. The licensee acknowledged the information and did not indicate that any of the information disclosed during the inspection could be considered proprietary in nature.