

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Reports No. 50-456/84-40(DRS); 50-457/84-37(DRS)

Docket Nos. 50-456; 50-457

Licenses No. CPPR-132; CPPR-133

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

Facility Name: Braidwood Station, Units 1 & 2

Inspection At: Braidwood Site, Braidwood, Illinois

Inspection Conducted: December 19-20, 1984, and January 8-9, 1985

Inspector: *[Signature]*
K. D. Ward

1/16/85
Date

Approved By: *[Signature]*
D. H. Danielson, Chief
Materials and Processes Section

1/16/85
Date

Inspection Summary

Inspection on December 19-20, 1984, and January 8-9, 1985 (Reports No. 50-456/84-40(DRS); 50-457/84-37(DRS))

Areas Inspected: Special, unannounced inspection of previous inspection findings, preservice inspection activities and allegations. The inspection involved a total of 28 inspector hours by one NRC inspector.

Results: No items of noncompliance or deviations were identified.

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DETAILS

1. Persons Contacted

Commonwealth Edison Company (CECo)

- *C. Schroeder, Licensing and Compliance Superintendent
- *L. Kline, Licensing and Compliance Supervisor
- M. Wallace, Project Manager
- G. Groth, Lead Mechanical Engineer
- R. Gardner, PSI Coordinator, Level III
- F. Farr, Field Engineer

Phillip Getchow Company (PGCo)

- J. Hammond, Field Superintendent
- E. Ullrich, QC Supervisor

The inspector also contacted and interviewed other licensee and contractor personnel.

*Denotes those present at exit interview.

2. Licensee Action on Previous Inspection Findings

- a. (Closed) Noncompliance (456/83-08-03; 457/83-08-03): Failure to control welding materials. The inspector reviewed the final response dated September 22, 1983, inter-office memo re-instructing the proper method of controlling the weld rod, a directive requiring each contractor to re-instruct their personnel on the proper control of the weld rod and other documentation related to the subject.

All suspect weld rod was discarded and craft personnel in the field were re-instructed in the proper method of controlling weld rod. The Project Construction Department issued a site directive to all contractors. The directive required each contractor to re-instruct their personnel on the proper control of weld rod. The inspector agreed with the results and considered this item closed.

- b. (Closed) Noncompliance (456/84-17-06; 457/84-17-06): Failure to control welding structural steel. RIII Inspection Report No. 50-456/84-17; 50-457/84-17 stated that the inspection of this item showed that action had been taken to correct the identified noncompliance and to prevent recurrence, consequently, no reply to the item was required. The inspector agreed with the report and the action taken and considers this item closed.
- c. (Closed) Noncompliance (456/84-17-08; 457/84-17-08): Failure to control welding for two socket welds in instrumentation piping. RIII Inspection Report Nos. 50-456/84-17(DRS); 50-457/84-17(DRS) stated that the inspection of this item showed that action had been

taken to correct the identified noncompliance and to prevent recurrence, consequently, no reply to this item was required. The inspector agreed with the report and the action taken and considers this item closed.

- d. (Closed) Unresolved Item (456/84-08-09; 457/84-08-09): Welding records incomplete. The inspector reviewed "Field Fabrication Process" and data sheets (FFP&D) delineating where field inspectors and office technicians sign the form. The FFP&D sheets and weld rod issue slips that were reviewed by the inspector did not show discrepancies between dates when inspection steps were signed and the actual inspections. A tally sheet was prepared by the licensee that explained the concerns. The inspector found this acceptable and considers this item closed.

3. Preservice Inspection (PSI)

The inspector reviewed the certification documents relative to ultrasonic instruments, calibration blocks, transducers and couplant. The inspector also reviewed several NDE personnel certifications in accordance with SNT-TC-1A, data reports, and audits of the PSI activities by CECO and the Hartford Steam Boiler Inspection and Insurance Company.

The inspector observed the work and had discussions with personnel during review of the ultrasonic examinations (UT) of some carbon steel reactor coolant pump bolts. These observations included calibrations, performance of the examinations, and the documentation. The ultrasonic examinations were performed in accordance with CECO Procedure, "Ultrasonic Inspection of 4.5" Diameter, 35" Long Carbon Steel Reactor Coolant Pump Bolts," BWVP 1900-3, Revision 1. The UT was a shear wave immersion technique with the use of a specially designed probe which was inserted in the bolts bore hole.

The UT was performed with the bolts in position and within the water filled bore holes only. However, the UT may also be performed for such bolts when they are removed from the components. The complete inside diameter (ID) surface of the bore holes were scanned with a specially designed transducer which was capable of detecting outside diameter (OD) surface cracks. The inspector found this examination acceptable and no items of noncompliance or deviations were identified.

4. Allegations

(Closed) Allegation No. RIII-84-0016: On February 2, 1984, a former pipefitter at Braidwood telephoned the Region III Office. The allegor had been employed by Phillips-Getschow Company (PGCo) on several occasions during 1979-1981 and reported the following allegations:

a. Allegation

The allegor claimed that pipefitters and supervisors for PGCo were unqualified. The allegor's basis for the claim was that most pipefitters were working under a union permit and had never served an apprenticeship like the allegor had.

NRC Findings

There is no requirement that contractors hire only pipefitters that have served a union apprenticeship or any other standard set of requirements, but there are qualification requirements for pipefitter welders that they must meet before they perform safety-related work. At Braidwood, pipefitters were employed by the PGC. CECO takes no credit for union craftsmen training or qualification to determine welder qualifications. Each welder is specifically qualified on site.

The inspector reviewed several PGC weld travelers that were initiated for safety-related installations. The welder's symbol number, date the weld was performed, and weld procedure utilized were noted. Each welder is assigned a unique symbol number. When a welder performs a weld operation, he places his symbol number on the traveler and stamps his symbol number adjacent to the weld with a metal stamp. This symbol number is never re-issued to a different person. This information was compared to the welder's qualification records to determine if the welder was qualified to the procedure utilized on the date the welding was performed. No deviations were identified. Also, the inspector reviewed several welder qualification records. All welder qualifications reviewed were found acceptable.

The following actions are taken by CECO to assure pipefitters performing safety-related work are qualified and performing their work in an acceptable manner.

- ° In general, CECO witnesses 100% of the bend tests for welder qualification.
- ° All radiograph (RT) for welder qualification and for production welds is performed by Pittsburg Testing Laboratory (PTL). PTL also performed all the magnetic particle examinations (MT) of the production welds in 1979-1981. PTL & PGC performs MT at the present time.
- ° All contractor welder qualifications are reviewed by the CECO welding engineer.
- ° In 1979-1981 CECO performed 17 audits. The inspector reviewed several of the audit reports.
- ° CECO QA personnel perform approximately 9 audits in the area of welder qualifications each year. The inspector reviewed several of the audit reports.
- ° PGC QA personnel perform two audits in the area of welder qualification each year.
- ° PGC QC personnel perform visual examination (VT) on all welds, and where required, a liquid penetrant examination (PT) is performed.

This allegation could not be substantiated and is considered closed.

b. Allegation

The allegor spoke of a pipe improperly installed with a "come along," mishandling of pipes causing the pipe bevels to be banged, and pipes installed backwards. According to the allegor a 98 ton steam pipe serving a heat exchanger unit was installed backwards by a crew of unqualified college students working at Braidwood during their summer vacation. The allegor could not provide any specific information (e.g., systems, locations, etc).

NRC Findings

"Come alongs" are used to install pipe as a standard industrial practice.

Pipe bevels are inspected by QC inspectors prior to welding to make sure that the bevels are acceptable.

The maximum weight for a steam pipe serving a heat exchanger unit is 20 ton according to responsible site engineers.

Steam piping serving a heat exchanger unit come in spools and they could not be installed backwards. The spools are identified, prints are used and QC inspected. The spools would only fit one way.

College students have worked at Braidwood during their summer vacations as pipefitter apprentices. In installing large spool sections there could be 5 college students (pipefitter apprentices) with 15 qualified journeymen personnel. A pipefitter apprentice is a helper. He cannot work alone and performs no welding.

The inspector interviewed several personnel that were on site from 1979-1981. None of these individuals were aware of this problem or expressed concern in this area.

This allegation could not be substantiated and is considered closed.

c. Allegation

The allegor stated he had heard that a named individual was working as a quality control inspector at Braidwood. The allegor had previously worked with the named individual at a non-nuclear facility and considered the named individual to be a poor worker. The allegor questioned the named individual's capacity and capabilities as an inspector if he was an incapable non-nuclear pipefitter.

NRC Findings

The inspector reviewed a list of all PGC Co QC personnel that have been on site (310 personnel) and could not find the named individual. There was a similarly spelled name that started working for PGC Co on site April 1979, and is still on site as a pipefitter welder.

The similarly spelled name has not been a QC inspector at Braidwood. The inspector reviewed his qualifications and interviewed various personnel that knew the individual and how he performed his work. The inspector found the similarly spelled name's qualifications to be acceptable and that the individual has done an acceptable job.

This allegation could not be substantiated and is considered closed.

5. Exit Interview

The inspector met with site representatives (denoted in Persons Contacted paragraph) at the conclusion of the inspection. The inspector summarized the scope and findings of the inspection noted in this report.