

U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Reports No. 50-456/84-22(DRS); 50-457/84-21(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 and 2

Inspection At: Braidwood Site, Braidwood, Illinois

Inspection Conducted: August 13-16, 1984

Inspector: *[Signature]*
W. J. Key

8/28/84
Date

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

8/29/84
Date

Inspection Summary

Inspection on August 13-16, 1984 (Reports No. 50-456/84-22(DRS);
50-457/84-21(DRS))

Areas Inspected: Routine unannounced safety inspection to review specification and procedures, equipment and inspection personnel certifications, examination records, and observation of tube data collection and evaluation for steam generator eddy current examinations. The inspection involved a total of 28 inspector-hours by one NRC inspector.

Results: No items of noncompliance or deviations were identified.

DETAILS

1. Persons Contacted

Commonwealth Edison Company (CECo)

- *D. L. Shamblin, Project Construction Superintendent
- *S. C. Hundsader, QA Supervisor
- *M. A. Gorski, PCD Engineer
- *R. T. Francoeur, PCD Engineer
- *D. J. Skoza, PF Engineer
- *S. J. Reutcke, QA Engineer
- *M. F. Sears, Technical Staff Engineer
- *D. C. Boes, Technical Staff Engineer
- *G. Nelson, Assistant Technical Staff Supervisor
- *D. Chrzanowski, PSI Coordinator

Conam Inspection Division (Conam)

- M. Chambers, Supervisor, IIA
- C. Bandy, Operator, IIB
- M. Landis, Operator, IIB

*Denotes those attending either the entrance/exit meeting or both.

2. Eddy Current Examination of Steam Generator Tubes

a. Specification Review

The inspector reviewed Commonwealth Edison Specification No. L-SG1, dated January 3, 1983, which specifies requirements for eddy current examination of steam generator tubes to establish a baseline for comparison with future inservice inspections. The following are required by the specification:

- . Procedures for examination
- . 100% examination of SG tubing
- . Evaluation of data collected, presentation to the owner, Authorized Nuclear Inspector, regulatory authority
- . Examination personnel qualified in accordance with Section XI, Sub-Article IWA-2300
- . Compliance with ASME Code, Section XI, 1977 Edition through the Summer 1978 Addenda, and Regulatory Guide 1.83

b. Procedure Review

The following Conam procedures were reviewed by the inspector for compliance to specification, code, and regulatory requirements.

- (1) No. 42-EC-081, Revision 1 - Multifrequency EC procedure for (W) Series D4 and D5 steam generator tubing using the Zetec M12-18 digital EC system that includes the following equipment:

- . Zetec MIZ-18, digital multifrequency instrument
 - . Controller and operating display HP9836 computer with GPIO interface and MIZ-18 software
 - . Zetec HCD-75-Z, digital data recorder
 - . HP2671G, printer
 - . Analysis System, Zetec DDA-4 software with HP9836 computer
 - . Zetec probes - 0.160 SFM, 0.600 SFM, 0.580 SFM or others as required
 - . Inconel 600-SB-163 Calibration standards
- (2) No. 42-QC-010 - Eye examination procedure for assuring visual accuracy of NDT personnel.
- (3) No. 42-QC-003, Revision 5 - Equipment maintenance and calibration procedure. Applicable documents are:
- . MIL-C-45662-A
 - . ASTM E317-68
 - . ASME Section V
- (4) No. 42-CECP-001, Revision 0 - Procedure for certifying FCT personnel. This procedure references:
- . Conam Procedure 99CNTP-001
 - . SNT-TC-1A, 1975 and 1980 Editions
 - . Conam Procedure 42-EC-079, Practical Training
- (5) No. 99CNTP-001, Revision 2 - Procedure for training, testing, and certification of NDT personnel.

c. Certification Record Review

(1) Personnel Records

The certification and training jackets of the Conam inspection personnel listed below were reviewed by the inspector.

<u>Name</u>	<u>Level</u>
M. Chambers	IIA
J. Funanich	IIA
R. Merriman	IIB Ltd
M. Landis	IIB Ltd
J. Mitchell	IIB
M. Gortemiller	IIB Ltd
C. Bandy	IIB Ltd
M. Kemeipp	IIB Ltd

(2) Equipment Records

Conam

Certification and calibration records of the following equipment were reviewed by the inspector:

- . ECT Standard, Inconel 600, SB-163
Serial No. Z 1147-WS
Heat Treat No. 1748
- . Digital Data Recorders HCD-75-Z
Serial Nos. 025, 010, 008, 023, 015, 022
- . MIZ-18, Instruments
Serial No. 018, 012
- . Digital Analyser, Model HP9836, DDA-4
Serial No. 2314A06706

CECo Standards

- . Inconel 600, SB-163
Serial No. Z 1553
Heat Treat No. 5494
- . Serial No. Z1554
Heat Treat No. 5875
- . Serial No. Z1555/Z1556
Heat Treat No. 2586

d. Observation of Activities

The inspector examined tube data collection equipment set up at Unit 2 Steam Generators 2 and 3 and observed data being collected at the two data collection stations located in the Conam van outside containment.

Tube information is also evaluated in the van. As tube information is collected it is recorded on a computer disc and on magnetic tape. As the tape is evaluated the information is printed out on the computer printout system. This information is turned over to the owner as baseline data for reference and comparison to future inservice inspections.

e. Examination Record Review

The inspector reviewed the computer printout of eddy current tube examinations for Unit 1, Steam Generators 2 and 4, and Unit 2, Steam Generator 3.

Some indications between 20% and 93% and two inside diameter circumferential indications were identified. The examinations also identified that one tube was not rolled for the full thickness of the tube sheet.

It was noted that more dent indications were recorded in the Unit 2 steam generators than were recorded in Unit 1 generators.

Overall, the information collected on the Braidwood steam generators appears to be complete and will provide the required baseline for steam generators.

No items of noncompliance or deviations were identified.

3. Exit Meeting

The inspector met with licensee representatives denoted in Paragraph 1 at the close of the inspection on August 16, 1984. The scope and findings of the inspection were discussed.