U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 50-373/89027(DRS)

Docket No. 50-373 License No. NPF-11

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

Facility Name: LaSalle County Station, Unit 1

Inspection At: LaSalle Site, Marseilles, IL

Inspection Conducted: October 5, November 8-9, 15, and December 8, 1989

Inspector: for K. D. Ward 12/15/89
Date

Approved By: D. H. Danielson, Chief 12/15/89
Materials and Processes Section
Date

Inspection Summary
Inspection on October 5, November 8-9, 15, and December 8, 1989 (Report No. 50-373/89027(DRS))
Areas Inspected: Routine, unannounced safety inspection of inservice inspection (ISI) activities including review of programs (73051), procedures (73052), observation of work activities (73753), and data review (73755).
Results: No violations or deviations were identified. Based on the results of the inspection, the NRC inspector noted the following:

- The implementation of the ISI program followed the requirements of ASME Section XI and the licensee's program.
- Applicable procedures were well stated and workable.
- Management was involved in the ISI activities in an effective manner.
- Personnel involved in the ISI effort appeared knowledgeable, well trained, and competent.

DETAILS

1. Persons Contacted

Commonwealth Edison Company (CECo)

*W. Huntington, Technical Superintendent
*J. Giesker, Technical Staff Supervisor
*T. Hammerich, Regulatory Assurance Supervisor
*M. Oclow, Technical Staff, ISI
*S. Jerz, Nuclear Quality Projects
R. Clark, QC Supervisor

Nuclear Regulatory Commission (NRC)

*R. Lanksbury, Senior Resident Inspector
R. Kopriva, Resident Inspector

General Electric Company (GE)

J. Brinkman, Level III

Hartford Steam Boiler Inspection and Insurance Company (HSB)

J. Tetreault, ANII

The NRC inspector also contacted and interviewed other licensee and contractor employees.

*Denotes those present at the exit interview on December 8, 1989.

2. Inservice Inspection

a. Review of Program (73051)

GE and CECo performed the ISI in accordance with ASME Section XI, 1980 Edition, Winter 1980 Addenda. There was sufficient organizational staff to ensure that acceptable ISI work was performed. The sampling inspection plan for addressing Intergranular Stress Corrosion Cracking (IGSCC) concerns was in accordance with Generic Letter (GL) 88-01. All 23 welds inspected in accordance with GL 88-01 were found to be acceptable. The licensee did not make a request for relief from the ASME Code this outage. The NRC inspector reviewed audits/surveillances of ISI activities conducted by qualified personnel to verify compliance with the ISI program.

No violations or deviations were identified.

b. Review of Procedures (73052)

All applicable ISI procedures were approved by the ANII and were

reviewed by the NRC inspector. The GE Smart Ultrasonic System and manual pulse echo ultrasonic examination (UT) detection instruments and transducers of various angles, sizes, and MHZ were used. The nondestructive examinations (NDE) were performed in accordance with ASME Section V, 1980 Edition, Winter 1980 Addenda.

No violations or deviations were identified.

c. Data Review and Evaluations (73755)

The examination data was within the criteria as outlined in the applicable NDE procedures and ASME Code requirements. The NRC inspector's review included examination of documents relating to NDE equipment, data, and evaluations.

No violations or deviations were identified.

d. Observation of Work Activities (73753)

The NRC inspector observed work and had discussions with personnel during the ISI activities. These observations included the following:

(1) A CECo QA individual performing his ISI related duties.

(2) A CECo Level III individual observing GE personnel demonstrating that they could calibrate correctly on the de-clad feedwater nozzle inner bore and radius calibration standard.

(3) GE personnel performing ultrasonics using the GE Smart Ultrasonic System.

(4) GE personnel performing liquid penetrant examinations on pipe weld #44, 150# HP-1002.

(5) GE personnel performing magnetic particle examinations on pipe weld #43, 150# HP-1002.

(6) GE personnel performing ultrasonic examinations on safe end to nozzle weld #39B, 150# HP-1002.

(7) GE personnel performing visual examinations using a Westinghouse miniature underwater TV camera in conjunction with the use of video tape recorders recording examinations from inside the reactor vessel. The tapes were reviewed by the NRC inspector, representatives of CECo, GE, the ANII, and were discussed with NRR staff. The cracks identified in Paragraph (d) below were determined by GE to be acceptable for one more cycle of operation and did not need repair before start up. CECo and NRR concurred with this conclusion.

(a) Jet pumps (acceptable).

(b) Feedwater sparger and end brackets (acceptable).

(c) Core spray internal piping and brackets (acceptable).

(d) Steam dryer (nine cracks due to Intergranular Stress Corrosion Cracking (IGSCC)). The steam dryer is classified as a nonsafety-related component.

1 Crack 5" long, 1' from top of dryer in weld V-1.

2 Crack 5" long, just above the end plate of the drain trough in the heat affected zone starting at weld V-5.

3 Crack 4" long in the second lateral support down from the top of the 45° lifting eye.

4 Crack 4" long in the end plate horizontal weld above the drain trough between welds V9 and V10.

5 Crack 4" long in the horizontal weld of the outer curved hood and the drain trough, 3' from weld V10.

6 Crack 6" long in the end plate horizontal weld above the drain trough between welds V8 and V9.

7 Two cracks 4" long each on the top and bottom of the second lifting eye bracket, 135°.

8 Two cracks 4" long each on the top and bottom of the second lifting eye bracket, 215°.

9 Two cracks 1" long each on the top and bottom of the second lifting eye bracket, 315°.

The following actions will be performed by CECo:

1 The Unit 2 dryer will be inspected as early as possible during the next Unit 2 outage so the results can be evaluated without impacting the schedule. Base line data will be retrieved for comparison.

2 CECo will inspect the Unit 1 dryer at the start of the Spring 1990 outage.

3 CECo will prepare a contingency repair program for the next Unit 1 outage.

The long term program is to continue inspecting the dryers during each outage. GE does not believe it is necessary to replace the dryers at this point in time since there has been no history of complete failures to date. All the above relevant indications are

in the heat affected zone of the welds and have patterns characteristic of IGSCC. Also, there is no evidence of fatigue cracking or of any cracks in the weld metal. GE, CECo and NRR agreed that any loose piece that could reasonably be assumed to be a result of the observed cracking would not have any safety consequences.

The NRC inspector reviewed the qualifications and certifications of all inspection personnel on site to ensure conformance with SNT-TC-1A. The personnel performing UT in accordance with GL 88-01 were qualified at the Electric Power Research Institute (EPRI) for IGSCC.

No violations or deviations were identified.

3. Exit Interview

The NRC inspector met with site representatives (denoted in Paragraph 1) at the conclusion of the inspection. The NRC inspector summarized the scope and findings of the inspection noted in this report. The NRC inspector also discussed the likely informational content of the inspection report with regard to documents or processes reviewed by the NRC inspector during the inspection. The licensee did not identify any such documents/processes as proprietary.