U. S. NUCLEAR REGULATORY COMMISSION
REGION I

Report Nos. 50-387/91-05
50-388/91-05

Docket Nos. 50-387
50-388

License Nos. NPF-14
NPF-22

Licensee: Pennsylvania Power & Light Company

Facility Name: Susquehanna Steam Electric Station

Inspection At: Berwick, Pennsylvania

Inspection Conducted: April 16-19, 1991

Inspector: P. Patnaik — 4-26-91
P. Patnaik, Reactor Engineer, Materials Section, Engineering Branch, DRS — date

Approved by: E H/ Gray — 5/1/91
E. Harold Gray, Chief, Materials Section, Engineering Branch, DRS — date

Inspection Summary: A routine inspection was performed from April 16 to April 19, 1991 (Report Nos. 50-387/91-05 and 50-388/91-05).

Areas Inspected: Inservice inspection program and the data pertaining to the second period of the first inspection interval of Unit 2 were reviewed.

Results: No violation or deviation was identified. The licensee's inservice inspection program met the regulatory requirements. No discrepancy was noted in the review of inspection data. The licensee's automated ultrasonic procedure GE-ISI-435, Revision 0, that was upgraded from previous procedures, AES-QAI-329 and 330 did not include reference to demonstration to the authorized inspector as required by the ASME Code. This item is unresolved pending verification by the licensee that the procedure demonstration was reviewed by the authorized inspector and documentation for this activity is completed.

DETAILS

1.0 Persons Contacted

Pennsylvania Power and Light Company

*G. Stanley, Plant Superintendent
*H. L. Webb, Superintendent, Nuclear Maintenance Services
*T. Dalpiaz, Assistant Superintendent-Outages
*H.C. Riley, Supervisor, Health Physics
*T. K. Steingass, ISI Supervisor
*R. A. Saccone, Refuel Group Supervisor
*R. J. Prego, Supervisory Engineer - Audits and Assessments
*K. V. Chambuss, Maintenance Production Supervisor
*M. Golden, Acting Technical Supervisor
*D. Roth, Senior Compliance Engineer
*R. A. Baker, Coordination Engineer/NDE Level III
*J. T. Lindberg, Project Scientist/NDE
*N. T. Fedder, ISI Specialist
*R. T. Linden, ISI Specialist

United States Nuclear Regulatory Commission

*G. S. Barber, Senior Resident Inspector
*J. R. Stair, Resident Inspector

*Denotes those attending the exit meeting. The inspectors also contacted other administrative and technical personnel during the inspection.

2.0 Inservice Inspection of Susquehanna Unit No. 2 (73753, 73755)

Scope

The inservice inspection (ISI) program and the data collected during the fourth refueling outage of the unit were reviewed to determine the licensee's compliance to the ASME Boiler and Pressure Vessel Code, Section XI, 1980 Edition including the Winter 1981 Addenda, as required by the technical specification and other augmented inspections committed to by the licensee.

Details of Review

During the fourth refueling outage of the unit, a total of 289 welds were examined by the licensee. In the reactor vessel, 33 welds on the pressure boundary and 76 welds in the vessel internals were ultrasonically examined. A total of 179 welds were visually inspected and one weld was inspected by liquid penetrant. In the reactor recirculation and other critical piping, 79 welds were ultrasonically examined, 107 welds were

either liquid penetrant or magnetic particle tested, and 178 welds were visually inspected. A few minor surface indications were found which were ground out and removed. There was no rejectable indication found by ultrasonic or visual examination.

The inspector selected a sample of welds from the following components and systems to verify that 1) approved non-destructive examination (NDE) procedures were used, 2) personnel performing the examination were certified to appropriate ASNT (American Society of Non-destructive Testing) levels, and 3) the authorized nuclear inspector (ANI) is involved to the extent required by the ASME Code and the licensee's ISI plan.

- Reactor Vessel
- Recirculation piping nozzle to safe-end welds
- Feedwater safe-end to nozzle welds
- Residual Heat Removal system
- Core Spray system
- Reactor internals

The inspector's review indicated that there was no record of demonstration of the procedure GE-ISI-435, Revision 0, "Automated Ultrasonic Testing of Reactor Pressure Vessel Assembly Welds" to the authorized inspector as required under ASME Code, Section V, Article I, Section T-150. However, the above procedure was generated as a result of combining two pre existing procedures that were demonstrated to the authorized inspector to simplify the review and comment process. The licensee generated a nonconformance report (NCR) to document the above and initiate corrective action as necessary for its disposition. This is an unresolved item pending licensee review to verify the procedure had been adequately demonstrated to the authorized inspector and resolution of the NCR (50-387/91-05-01 and 50-388/91-05-01).

The inspector reviewed the qualification records of personnel performing non-destructive examination on selected welds and noted that the personnel were certified to appropriate ASNT levels. The inspector also reviewed the documentation on calibration standards used for ultrasonic examination and witnessed their storage and control.

Through reviews of licensee surveillance logs and QA audit reports, the inspector determined that the licensee had performed independent surveillances of the contractor's non-destructive examination activities during the outage.

Conclusion

The inspector concluded that the licensee's inservice inspection program met the regulatory requirements and there was no discrepancy noted in the review of inspection data.

3.0 Management Meetings

The licensee's management was informed of the scope and the purpose of inspection at the entrance meeting on April 16, 1991. The findings of the inspection were discussed with licensee's representatives during the course of the inspection and presented to licensee's management at the exit meeting on April 19, 1991 (see paragraph 1 for attendees). The licensee did not indicate that proprietary information was involved within the scope of this inspection.