

U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Report No. 50-278/85-35

Docket No. 50-278

License No. DPR-56

Licensee: Philadelphia Electric Company
2301 Market Street
Philadelphia, Pennsylvania 19101

Facility Name: Peach Bottom Atomic Power Station, Unit 3

Inspection At: Delta, Pennsylvania

Inspection Conducted: September 30 - October 4, 1985

Inspectors: Jon R Johnson,
for S. D. Kucharski, Reactor Engineer

10/24/85
date

Joseph A. Gella
J. A. Gella, Reactor Engineer

10-24-85
date

Approved by: Jon R Johnson
J. Johnson, Chief, Operational
Programs Section, OB, DRS

10/24/85
date

Inspection Summary:

Inspection on September 30 - October 4, 1985 (Inspection No. 50-278/85-35)

Areas Inspected: Routine, unannounced inspection of the Local Leak Rate Test (LLRT) Program and Containment Integrated Leak Rate Test (CILRT) Procedure. The inspection involved 72 hours onsite by two region-based inspectors.

Results: No violations or deviations were identified.

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DETAILS

1.0 Persons Contacted

Philadelphia Electric Company

C. Campbell, Project Engineer
*G. Dawson, Results Engineer
*A. Donell, Site QC Supervisor
*R. Fleischmann, Plant Manager
*A. Fulvio, Technical Engineer
*A. Smith, Operations Superintendent
*A. Wasong, Results Engineer

NRC

*T. Johnson, Senior Resident Inspector
*H. Williams, Resident Inspector

*Denotes those present at exit meeting on October 4, 1985.

2.0 Licensee Action on Previous NRC Findings

2.1 (Open) Inspector Follow-up Item (50-278/85-10-01): Licensee Not Performing Type B and C Testing Results Comparison to 0.6 La for As-found Condition During Non-CILRT Outages.

This item dealt with the method of recording the results for type B and C leakage tests. The method used by the licensee now masks the running total for the LLRT criteria. The licensee agrees with the inspectors' concern, but as of this inspection, has not made any changes. This item will remain open.

3.0 Local Leak Rate Test Program

3.1 Documents Reviewed

- ST 30.037 LLRT - RCIC Steam Supply, Revision 5, for penetration No. N-10, Unit 3
- ST 30.126 LLRT - Drywell Chilled Water Isolation Valves, Revision 3, for penetrations N-53 thru N-56, Unit 3
- ST 30.127 LLRT - RBCW Drywell Isolation Valves, Revision 2, for penetrations N-23 and N-24, Unit 3
- LLRT instrumentation calibration records for test box Nos. 1, 2, 3, 4 and 5, standard instruments used to calibrate the test boxes (rotameters and pressure gages)

- LLRT Test Box Calibration Procedure RT 7.0, Revision 5
- LLRT results for 63 containment penetrations
- Technical Specification 4.7.A.f

3.2 Scope of Review

The inspectors reviewed the above listed documents to determine compliance with the regulatory requirements of 10 CFR 50, Appendix J, technical specifications and applicable industry standards. The inspectors held discussions with the licensee regarding the documentation of test results, the repair and retesting following failed tests, and the relationship of these items to the "as-found" and "as-left" conditions of the containment.

3.3 LLRT Procedure Review

The inspectors reviewed specific LLRT procedures being used during the current outage. These procedures were determined to be technically accurate and in conformance with the regulatory requirements. The procedural valve lineups and associated instructions were adequate to allow for the proper venting and draining of test boundaries. No unacceptable conditions were identified.

3.4 LLRT Instrumentation Calibration Records

The inspectors reviewed the calibration records for the pressure gages and rotameters in the LLRT test boxes. The calibrations were current. The standards used also had current calibration and were traceable to the National Bureau of Standards. No unacceptable conditions were identified.

3.5 LLRT Test Box Calibration

The inspectors witnessed the calibration of two local leak rate test boxes. The test personnel were familiar with the test equipment and the use of the procedure. The calibration was conducted in accordance with an approved procedure (RT 7.0, Revision 5). The inspectors verified the documentation of the test result. No unacceptable conditions were identified.

3.6 LLRT Test Results Evaluation

The inspectors reviewed individual LLRT results and the running leakage total. The inspectors also discussed analysis of the test results and the status of repairs and retests with the licensee. All "as-found" and "as-left" local leak rates are individually itemized and incorporated into two running totals, one "as-found" and one "as-left." This documentation method is being used for CILRT only. During non-CILRT outages, the licensee uses a different method

of recording LLRT results. (See paragraph 2.1) No unacceptable conditions were identified.

4.0 Containment Integrated Leak Rate Test (CILRT)

4.1 Documents Reviewed

- Surveillance Test Procedure ST-12.5-1, Revision 5, Integrated Leak Rate Test draft version
- Technical Specifications 4.7.A.c, 4.7.A.d
- FSAR Section 5.2.5.1, Primary Containment Integrity and Leaktightness
- Instrument Selection Guide (ISG) Calculation
- CILRT Volume Fraction Calculation

4.2 Scope of Review

The inspectors reviewed the above listed documents for technical adequacy and to determine compliance with requirements of technical specifications, 10 CFR 50, Appendix J, and applicable industry standards.

4.3 Procedure Review

ILRT Procedure ST-12.5-1, Revision 5, was reviewed in its present draft stage. The final version is also planned to be reviewed by the inspectors prior to the upcoming ILRT.

4.4 CILRT Instrumentation

The inspectors reviewed the ISG calculation. It was found to be appropriate only for the case where all instrumentation is operable for the duration of the test. It is possible to have one or more sensors (total pressure, drybulb and dewpoint temperature) fail during the test. In this case, to meet ISG criteria, the test will have to be run for a longer duration. The licensee agreed to include an instrument failure analysis in their calculation. The inspectors had no further questions at this time.

5.0 QA/QC Involvement in LLRT and CILRT

LLRT and CILRT activities are monitored by plant QC personnel. QC selects a sample of LLRT's to be monitored from the outage schedule. These LLRT's are then reviewed in accordance with a "Detailed Monitoring Checklist" (DMC) which is specific to the type of test being performed. The CILRT is also monitored with a DMC which is specific to the CILRT procedures. The DMC's were found to be comprehensive and technically useful from a QA/QC

standpoint. QC personnel were knowledgeable of their responsibilities. No unacceptable conditions were identified.

6.0 Facility Tours

The inspectors made several tours of the facility including the control room, turbine floor and secondary containment. General housekeeping of the facility was good. No unacceptable conditions were identified.

7.0 Exit Meeting

A meeting was held on October 4, 1985, to discuss the scope and findings of the inspection as described in this report (see Section 1 for attendees). At no time during the inspection were written inspection findings provided to the licensee.