

U. S. NUCLEAR REGULATORY COMMISSION

REGION I

Report No. 50-277/82-20
50-278/82-19

Docket No. 50-277
50-278

License No. DPR-44
DPR-56 Priority -- Category C

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

Facility Name: Peach Bottom Atomic Power Station, Units 2 and 3

Inspection At: Delta, Pennsylvania

Inspection Conducted: August 16-20, 1982

Inspectors: *L. H. Bettenhausen* 9/14/82
S. V. Pullani, Reactor Inspector date

Approved By: *L. H. Bettenhausen* 9/14/82
L. H. Bettenhausen, Chief date
Test Program Section,
Engineering Programs Branch

Inspection Summary:

Inspection on August 16-20, 1982 (Combined Report No. 50-277/82-20 and 50-278/82-19)

Areas Inspected: Routine, unannounced inspection of follow-up of licensee actions on IE Bulletin 78-14 (Units 2 and 3); review of Local Leak Rate Test (LLRT) procedures (Unit 2 only); and tours of the facility (Units 2 and 3). The inspection involved 46 inspector hours (40 hours for Unit 2; 6 hours for Unit 3) onsite by one region based inspector.

Results: Of the three areas inspected, no violations or deviations were identified in two areas; one apparent violation (failure to report abnormal degradation of primary containment - Paragraph 3.4.1) was identified in one area.

DETAILS

1. Personnel Contacted

1.1 Philadelphia Electric Company (PECO)

- B. Clark, Senior Engineer, Philadelphia Office (by telephone)
- *J. Davenport, Engineer Maintenance
- *D. Helker, Test Engineer
- S. Kovacs, Engineer Administrative
- *J. Mitman, Results Engineer
- F. Polaski, Acting Technical Engineer
- R. Sware, Technical Assistant
- *W. Ullrich, Station Superintendent
- *J. Winzenreid, Technical Engineer

1.2 Nuclear Regulatory Commission (NRC)

- A. Blough, Senior Resident Inspector

2. Summary of Licensee Actions on IE Bulletin 78-14 (Units 2 and 3)

(Closed) Inspector Follow-up Item (50-177/78-BU-14) (Unit 2): The licensee has addressed satisfactorily all action items in IE Bulletin 78-14. The licensee completed the first maintenance cycle for Unit 2 for replacement of Buna-N components in ASCO solenoids and has established a satisfactory program for the future maintenance cycles as required by the bulletin. See Section 4 of this report for details. This item is closed.

(Closed) Inspector Follow-up Item (50-278/78-BU-14) (Unit 3): The same comments on IFI 50-277/78-BU-14 above also apply to IFI 50-278/78-BU-14. This item is closed.

3. Local Leak Rate Testing (Unit 2)

3.1 References

- 10 CFR 50, Appendix J, Primary Reactor Containment Leakage Testing for Water-Cooled Power Reactors
- Peach Bottom 2 and 3 Technical Specifications, Section 3.7, Containment Systems; and Section 6.9.2, Reportable Occurrences
- FSAR, Section 5, Containment
- ANSI/ANS 56.8-1981, Containment System Leakage Testing Requirements

3.2 Documents Reviewed

- ST 20.00, Local Leak Rate Surveillance Test (LLRT) Program, Revision 0
- Selected LLRT procedures
- Records of LLRTs performed during the recent outage (February 20, 1982, to June 25, 1982)
- Selected LLRT instrument calibration records
- Selected Piping and Instrumentation Diagrams (P&IDs)

3.3 Scope of Review

The inspector reviewed the above documents to ascertain that the licensee's LLRT program was conducted in compliance with the regulatory requirements and licensee commitments referenced in Section 3.1. Further details and inspection findings are described below.

3.4 Test Results Evaluation

The inspector reviewed the results of LLRTs performed during the recent refueling outage (February 20, 1982, to June 25, 1982) to verify conformance with the requirements of 10 CFR 50, Appendix J, and Technical Specifications.

3.4.1 Reportability

The results of LLRTs performed during the recent refueling outage indicated that the combined leakage for all Type B and C tests exceeded 10 CFR 50 Appendix J limit of 0.6 La (71,186 SCCM). Three MSIVs failed to meet TS requirements of 11.5 SCFH (5427 SCCM), the maximum individual leakage limit. In addition, several other containment isolation valves had gross leakages beyond the range of flow instrument used for the test. These valves were repaired and retested during the outage. The following table shows pertinent data for the valves which had excessive leakage:

<u>Valve</u>	<u>AS FOUND Leakage Date Tested</u>	<u>AS LEFT Leakage Date Tested</u>
Inboard MSIV AO-2-2-80B	>1800 SCFH 2-20-82	20 SCCM 5-06-82
Inboard MSIV AO-2-2-80C	>1800 SCFH 2-20-82	1689 SCCM 4-02-82

Inboard MSIV AO-2-2-80D	>1800 SCFH 2-20-82	3973 SCCM 4-14-82
Main Steam Line Drain MO-2-2-74	>10,000 SCCM 5-18-82	10 SCCM 6-20-82
HPCI Pump Discharge MO-2-23-19	>10,000 SCCM 2-25-82	10 SCCM 6-05-82
RCIC Pump Discharge MO-2-13-20	>10,000 SCCM 2-24-82	624 SCCM 5-26-82
PCAC Pump Discharge SV-2980	>10,000 SCCM 2-04-82	10 SCCM 2-05-82
HPCI Turbine Exhaust Swing Check 2-23-65	>10,000 SCCM 2-23-82	333 SCCM 5-27-82
Chilled Water Isolation MO-22-01A	>10,000 SCCM 5-07-82	3108 SCCM 5-22-82

Technical Specification 6.9.2.a(3) requires prompt notification within 24 hours with written follow-up within 10 working days for any abnormal degradation discovered in primary containment. As of August 20, 1982, the abnormal degradation of primary containment, as evidenced by unacceptable AS FOUND leakages discovered on the dates listed in the above table were not reported. This constitutes a violation of TS 6.9.2, Reportable Occurrence (50-277/82-20-01).

After the above violation was identified by the inspector, the licensee submitted LER 82-021/03L-0 on the above subject along with a letter dated August 25, 1982.

The licensee inquired about the NRC position on the reportability of Type B and C tests which are found to have unacceptable leak rates at a time when containment integrity is not required such as during a refueling outage. The inspector explained the NRC position that thirty day written reports should be submitted whenever unacceptable Type B and C test results are detected and containment isolation is not required. If there are more than one such related events, the intent of the above position could be satisfied by reporting the first event within 30 days, and the remaining events in a single comprehensive event report following completion of all Type B and C tests, in lieu of a separate event report for each event. However, prompt reporting with written follow-up must be made for those Type B and C tests which are found to have

unacceptable leak rates at a time when containment integrity is or would have been required as described in the TS. Regulatory Guide 1.16, Paragraphs C.2.a(2)(c) and C.2.a(3), gives additional guidance on the reportability of operation with unacceptable Type B and C test results and abnormal degradation discovered in primary containment.

3.5 Repairs and Adjustments to Containment Boundary

The inspector discussed with the licensee the relationship between the improvements made to the containment boundary as a result of repairs and adjustments (RAs) and type A test failures. If RAs, as a result of the Type B and C testing programs or other reasons, are made prior to Type A test sequence, the difference between AS FOUND and AS LEFT Type B and C results of the affected leakage paths should be added to the Type A test results to arrive at the AS FOUND Type A test results. A periodic Type A test should be called a "failure" if the AS FOUND Type A test results exceed 0.75 La. The inspector gave the licensee a copy of the NRC Memorandum, R. Mattson to J. Sniezek, January 11, 1982, explaining the above clarification of Appendix J requirements.

4. Follow-up of Licensee Actions on IE Bulletin 78-14 (Units 2 and 3)

4.1 Documents Reviewed

- IE Bulletin 78-14, Deterioration of Buna-N Components in ASCO Solenoids, December 19, 1978.
- Letter from B. H. Grier, NRC Region I Director, to PECO, enclosing the above Bulletin, December 19, 1978.
- PECO response letter to B. H. Grier on IE Bulletin 78-14, January 29, 1979.
- GE SIL-128, Revision 1, Supplement 1.
- GE to PECO letter G-HE-9-12, SIL-128 Discussion, January 30, 1979.
- Records of scram solenoid maintenance performed as of January 29, 1979.
- Records of scram solenoid maintenance performed for the first maintenance cycle completed during June, 1980, for Unit 2 and during October, 1979, for Unit 3.
- Hydraulic Control Unit (HCU) scram pilot valve maintenance log sheets.

- Selected maintenance request forms for the above maintenance activities.
- M-3.8, Maintenance Procedure for Control Rod Drive (CRD) HCU scram pilot valve resilient parts replacement, Revision 5.

4.2 Scope of Review

The inspector reviewed the above documents to ascertain that the information submitted by the licensee in response to the IE Bulletin is technically adequate, satisfies the requirements established in the IE Bulletin, and represents the action taken by the licensee.

4.3 Findings

IE Bulletin 78-14 contained the following actions to be taken by the licensee:

1. Review Buna-N material applications in control rod scram systems and determine the time since installation, and for installed material, the time since packaging.
2. Report the results of the review set forth in item 1 above and describe the schedule for replacement, both in response to the bulletin and for periodic maintenance.
3. Describe the bases for the schedule of replacement identified in response to item 2 above. Justify any proposed replacement time in excess of three years.
4. Within 45 calendar days of the date of the bulletin, report the results of the review, schedule and bases for replacement with regard to items 1 through 3.

The inspector reviewed the licensee response letter to the bulletin, the maintenance procedure, and the future maintenance schedule to ascertain that the above action items were adequately addressed. The inspector discussed with the licensee the following questions regarding the above action items:

1. In the licensee response letter, the response to Action Item 1 indicated that the packaging dates for replacement parts initially installed were unavailable. The licensee stated and the inspector verified that for the first maintenance cycle (completed June 1980, for Unit 2 and October 1979, for Unit 3) the licensee had recorded the packaging dates. The licensee explained that this would be continued for all future maintenance cycles as well.

2. In the licensee response letter, the response to Action Item 2 indicated that the first maintenance cycle of Buna-N component replacement would be completed during spring of 1980 and fall of 1979 refueling outages for Units 2 and 3 respectively. The licensee stated and the inspector verified that the first maintenance cycle was in fact completed during June, 1980, and October, 1979, respectively. The licensee also stated that the future maintenance cycle would be at an interval of 7 years, as recommended in General Electric SIL No. 128, Revision 1, Supplement 1. The licensee has established a program for future maintenance as evidenced by Maintenance Procedure M-3.8, Revision 5, which was reviewed by the inspector and found to be generally satisfactory.
3. The licensee explained that the 7 year replacement schedule was in accordance with GE SIL No. 128, Revision 1, Supplement 1, and is conservative based on the operating experience for BWRs as explained in GE to PECO Letter G-HE-9-12, January 30, 1979. Furthermore, the licensee explained that Peach Bottom Units 2 and 3 had experienced no solenoid valve failures related to deterioration of Buna-N components.

Based on the above, the licensee's actions to date in response to IE Bulletin 78-14 appears to be satisfactory. The inspector stated that the licensee's maintenance program in this area may be subjected to future inspections to ascertain that the program is being executed properly.

5. Tours of the Facility

The inspector made several tours of the facility including Turbine Building and Control Room. During these tours, the inspector observed operations and activities in progress and general condition of safety-related equipment. No unacceptable conditions were identified.

6. Exit Interview

The inspector met with licensee management representatives (see Section 1 for attendees) on August 20, 1982, and summarized the scope and findings of the inspection at that time.