

UNITED CTATES NUCLEAR REGULATORY COMMISSION REGION II 101 MARIETTA STRUCT, N.W. ATLANTA, GEORGIA 30323

Report Nos.: 50-321/89-26 and 50-366/89-26

Licensee: Georgia Power Company P. O. Box 1295 Birmingham, AL 35201

Docket Nos.: 50-321 and 50-366

License Nos.: DPR-57 and NPF-5

Facility Name: Hatch 1 and 2

Irspection Conducted: October 2-6, 1989

Inspector:

Approved by:

G. A. Belisle, Chief Test Programs Section Engineering Branch Division of Reactor Safety

non

Date Signed

SUMMARY

Scope:

This routine, unannouncer inspection was conducted in the areas of containment local leak rate testing and verification of controls for ensuring containment integrity.

Results:

One weakness was identified regarding the loose control of containment penetration venting and draining activities prior to local leak rate testing, paragraph 2.a

With the exception of this weakness, the licensee's local leak rate test (LLRT) program appears adequate in the areas inspected. For the current outage testing, very new LLRT failures occurred. This is indicative of a good valve maintenance program. Detailed procedures and controls were established, and LLRT personnel were knowledgeable of procedures, test practices, and regulatory requirements.

In the areas inspected, no violations or deviations were identified

8911170183 891108 PDR ADOCK 05000321 PDC PDC

REPORT DETAILS

1. Persons Contacted

Licenser Employees

- *E. Burkatt, Engineering Support
- *O. Fraser, Quality Assurance (QA) Site Manager
- *J. Hammonds, Nuclear Safety and Compliance Supervisor
- *1. Huber, Sanior Plant Engineer
- *J. Lewis, Acting Operations Manager
- *L. Sumner, Assistant General Plant Manager

Other licensee employees contacted during this inspection included engineers, operators, technicians, and administrative personnel.

NRC Resident Inspectors

*J. Menning, Senior Resident Inspector ... Ausser, Resident Inspector

*Attended exit interview

2. Containment Local Leak Rate Testing (61720)

The purpose of the inspection activities in this trea was to ascertain that the licensee's LLRT program was being administered adequately and conducted in compliance with NRC requirements. The inspector reviewed LLRT procedures, evaluated test results, witnessed ongoing leak rate testing for the current Unit 2 outage, reviewed containment isolation valve (CIV) maintenance records, and reviewed licensee QA coverage of the LLRT program.

a. LLRT Procedure Review

The inspector reviewed surveillance procedure 42SV-TET-001-2S, Type B and C Leakage Tests (Revision 4), and verified that the following attributes were included to ensure proper leak rate testing of containment isolation boundaries:

- LLRTs were performed at containment integrated leak rate test (CILRT) reak design pressure.
- The LLRT program utilized approved methods for testing containment penetration boundaries and CIVs.
- Penetration leakage rates were determined using the maximum pathway leakage.

- The criteria and responses for LLRTs and combined leakage rate failures were incorporated in the test procedure.
- Repairs and modifications to containment isolation boundaries and CIVs were preceded and followed by LLRTs.
- LLRTs were performed at the correct frequency.

A detailed review was performed for valves in the following penetrations to verify adequate alignment for venting and draining, and adequate boundary alignment for leak rate testing:

Penetration	7B	Main Steamline "B"
Penetration	8	Steamline Condensate Drain
Penetration	10	Steam to Reactor Core Isolation Cooling (RCIC) Turbine
Penetration	12	Residual Heat Removal (RHR) Suction
Penetration	14	Reactor Water Cleanup Supply (RWCU)
Penetration	169	Core Spray Supply
Penetration	42	Standby Liquid Control
Pener ration	44	Nitrogen Makeup Inlet
Penetration	63	Drywell Pneumatic Return
Penetration	81	Nitrogen Makeup Inlet
Penetration	221B	Vacuum Breaker High Pressure Core Injection (HPCI) Turbine Exhaust
Penetration	222B	Hydrogen Recombiner Return

Review of the LLRT documents and the penetrations indicated a weakness in the licensee's LLRT program regarding penetration venting and draining controls.

Procedure 42SV-TET-001-2S lists valves and their desired positions for leak rate testing various penetrations. Operations Department personnel perform these alignments by using equipment clearances, i.e., valve tagouts. They also vent and drain these penetrations by using clearances prior to leak rate testing; however, the procedure does not contain specific instructions on how to vent and drain these penetrations.

Operations personnel stated that as a general practice, all fluid filled systems such as RHR, Core Spray, etc., are totally drained shortly after plant shutdown for a refueling outage. However, LLRT personne' do not review Operation's valve configurations for penetration venting and draining before leak testing or afterwards to ensure that the alignments are acequate.

The inspector reviewed completed records of equipment clearances for penetration venting and draining to ensure that adequate draining was accomplished. Using plant piping, instrumentation, and isometric

drawings, the inspector verified that acceptable vent and low point drain valves were specified which would adequately drain the penetrations in those systems reviewed. Since no discrepancies were noted, the inspector was satisfied that containment penetrations were being drained correctly.

Although no specific problems were identified by the inspector, the potential exits for incorrectly venting and draining penetrations before leak rate testing and the lack of coordination between LLRT and Operations Department personnel in performing LLRT is considered a weakness.

b. LLRT Witnessing

The inspector witnessed the performance of LLRT activities to verify that approved test procedures were available and were followed and that qualified test equipment and tools were used. The following tests were witnessed:

- Penetration 12, RHR Suction, on October 2, 1989, "As-Found" Type C test of outboard CIV valve 2E11-F008.
- Penetration 210B, RHR Test Line, on October 3, 1989, "As-Found" Type C test of outboard CIV valve 2E11-F028B.

The inspector discussed the system lineup for the tests and determined that they were in acceptable test configurations. Test personnel folicwed approved procedures and utilized qualified test equipment. Personnel conducting the tests demonstrated a good understanding of the test equipment and the use of the test procedure. Acceptable leak rate results were obtained in the test of CIV 2E11-F008; however, valve 2E11-F028B would not maintain test pressure. After troubleshooting the test boundary by soap bubble testing, it was determined that leakage was occurring through a boundary valve. The licensee was taking corrective action to assure leak tightness of valve 2E11-F028B prior to startup from the current outage.

c. Leak Rate Test Maintenance Controls

The inspector tracked the repair and retest of several CIVL to verify that adequate controls existed to ensure maintenance and retest of the valves. A work request for maintenance is generated by the LLRT Coordinator when a valve fails to pass its local leak rate test. This request is sent to the Planning and Control Department where Maintenance Planners prescribe work procedures and post-maintenance testing requirements. Before valve maintenance is performed, the Maintenance Work Order (MWO) package is sent to the LLRT Coordinator for review and assurance that correct LLRT post maintenance is prescribed. When maintenance is completed, leakage retest of the valve is performed. Completion of the work request constitutes verification that all tests have been performed as required.

Six MWOs for CIV 2E11-F008, seven MWOs for CIV G31-F001, one MWO for CIV E21-F005B, ten MWOs for CIV E51-F007, six MWOs for CIV E41-F111, and one MWO for CIV 2P70-F002 were reviewed. Based on this review, the inspector concluded that the licensee has implemented a workable system to ensure that maintenance and retest of CIVs were satisfactor;ly completed.

The inspector also noted that for the current Unit 2 outage, and as of October 3, 1989, very few LLRT valve failures have occurred. This is indicative of a good valve maintenance program.

d. QA Coverage

The inspector discussed local leak rate testing coverage with GA representatives to determine the amount of QA involvement in LLRT activities. QA audit and surveillance reports were also reviewed since 1987 for activities related to containment leak rate testing. The inspector concluded that QA provides acceptable coverage of leak rate test activities.

Within these areas, no violations or deviations were identified.

3. Verification of Containment Integrity (61715)

The purpose of the inspection activities in this area was to verify the adequacy and implementation of procedures and controls designed to ensure and maintain containment integrity.

The inspector reviewed Unit 2 Operations Procedure 34GO-OPS-003-2S, Startup System Status Checklist (Revision 2), which ensures all necessary plant conditions are established for reactor startup. The inspector verified that the procedure included the following minimum provisions to ensure primary containment integrity exists before the plant enters operational modes which require containment integrity:

- All penetrations not capable of being closed by automatic isolation valves and required to be closed during accident conditions were closed by valves, blind flanges, or deactivated automatic valves.
- All equipment hatches were closed and sealed.
- Each containment airlock was operable.

- Containment leakage rates were within TS limits.
- Sealing mechanisms associated with each venetration were operable.

The inspector also reviewed procedure 34SV-SUR-011-25, Primary and Secondary Containment Integrity Demonstration (Revision 2). This procedure implements Technical Specification 4.6.1.1.a which demonstrates containment integrity by verifying that all required manual isolation valves, blind flanges, and deactivated automatic isolation valves are closed. The inspector verified that all appropriate containment isolation boundaries were included the ocedure. Unit 2 completed surveillance records for this procedur on the previous eight months of operation were also reviewed. No the oces were reported of incorrect valve or blind flange alignment.

Within the area inspected, no violations cr deviations were identified.

4. Exit Interview

The inspection scope and results were summarized on October 6, 1989, with those persons indicated in paragraph 1. The inspector described the areas inspected and discussed in detail the inspection results. Proprietary information is not contained in this report. Dissenting comments were not received from the licensee.

A weakness was identified relating to venting and draining penetrations before leak rate testing and the lack of coordination between LLRT and Operations Department personnel in performing LLRT (paragraph 2.a).