



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
101 MARIETTA STREET, N.W.
ATLANTA, GEORGIA 30323

Report No.: 50-324/86-03

Licensee: Carolina Power and Light Company
P. O. Box 1551
Raleigh, NC 27602

Docket No.: 50-324

License No.: DPR-62

Facility Name: Brunswick

Inspection Conducted: January 8-10, 1986

Inspector: Larry Nicholson
L. Nicholson

2/5/86
Date Signed

Approved by: Frank Jape
F. Jape, Section Chief
Test Programs Engineering Branch
Division of Reactor Safety

2/6/86
Date Signed

SUMMARY

Scope: This special announced inspection entailed 10 inspector-hours at the Wyle Laboratories in Huntsville, Alabama in the area of safety relief valve (SRV) testing.

Results: No violations or deviations were identified.

B602180171 B60210
PDR ADOCK 05000324
Q PDR

REPORT DETAILS

1. Persons Contacted

Licensee Employees

- *D. Hickman, Project Engineer
- *J. Lane, Project Engineer

Other Organizations

- *J. Boseman, General Electric
- *A. Szeglin, Target Pock Co.
- *J. Napp, Wyle Laboratories
- *M. Wegner, NRC/IE

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on January 9, 1986, with those persons indicated in paragraph 1 above. The inspector described the areas inspected and discussed in detail the inspection findings. No dissenting comments were received from the licensee. The licensee did not identify as proprietary any of the materials provided to or reviewed by the inspector during this inspection.

3. Licensee Action on Previous Enforcement Matters

This subject was not addressed in the inspection.

4. Unresolved Items

Unresolved items were not identified during the inspection.

5. Surveillance Testing of Safety Relief Valves (61701)

The inspector reviewed Wyle Test Procedure No. 1025, Test Procedure for "As Received" Testing of Target Rock Two-Stage Pilot-Operated Safety Relief Valves Model Number 7567F. This procedure was developed as a diagnostic method to determine the actual pressure required to separate the pilot disc from its seat. This is done by first heating the valve with steam to achieve thermal stabilization at a body temperature greater than 530°F. The steam is then removed and the manifold pressurized with gaseous nitrogen to 5 psig \pm 1 psig. The air operator is then pressurized with nitrogen to lift the pilot rod off the pilot disc, leaving the disc unrestrained. At this point the manifold is pressurized with nitrogen at a rate of less than 0.5 psi per second until the disc lifts, or a nitrogen pressure of 200 psig is reached.

The results of this diagnostic test revealed six out of 11 valves were pressurized to 200 psig nitrogen without lifting (see Table I). Four of the stuck valves were successfully lifted using the solenoid actuator, demonstrating operability in the ADS and manual modes. A fifth valve (S/N 1109) was steam popped, lifting at 1219 psig steam. The sixth valve was mistakenly disassembled before it could be subjected to further testing.

The inspector witnessed the disassembly of valve #1109 and examined the removed parts. The disc appeared normal with a solid, bright seating band and no obvious cause for problems. The labyrinth seal area showed very light wear. This valve is scheduled to receive a new disc manufactured from PH 13-8 Mo as a part of refurbishment.

Within the areas examined, no violations or deviations were identified.

TABLE I

1986 WYLE LAB TEST RESULTS: BRUNSWICK 2

VALVE #	SET PRESS	N2 PRESS	STEAM PRESS
1091	1105	11	1131
1099	1105	200+	(Solenoid) + 1107
1101	1115	11	1134
1102*	1115	82	1134
1103	1125	48	1134
1104*	1125	200+	(Solenoid) + 1153
1105	1115	200+	(Disassembled)
1106*	1105	5	1116
1107*	1115	200+	(Instrument Failure)
1108*	1125	200+	(Solenoid) + 1176
1109*	1105	200+	1219

*Scheduled to receive new PH 13-8 Mo disc.