



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

Report Nos.: 50-269/92-08, 50-270/92-08, 50-287/92-08

Licensee: Duke Power Company
 P. O. Box 1007
 Charlotte, NC 28201-1007

Docket Nos.: 50-269, 50-270, 50-287, 72-4

License Nos.: DPR-38, DPR-47, DPR-55, SNM-2503

Facility Name: Oconee Nuclear Station

Inspection Conducted: February 2 - February 29, 1992

Inspectors:	<u>W. H. Miller, Jr. for</u>	<u>3-23-92</u>
	P. E. Harmon, Senior Resident Inspector	Date Signed
	<u>W. H. Miller, Jr. for</u>	<u>3-23-92</u>
	B. B. Desai, Resident Inspector	Date Signed
	<u>W. H. Miller, Jr. for</u>	<u>3-23-92</u>
	W. K. Poertner, Resident Inspector	Date Signed

Approved by:	<u>G. A. Belisle</u>	<u>3/24/92</u>
	G. A. Belisle, Section Chief	Date Signed
	Division of Reactor Projects	

SUMMARY

Scope: This routine, resident inspection was conducted in the areas of operations, surveillance testing, maintenance activities, and followup on previous inspection findings.

Results: A reactor trip from full power occurred on Unit 3 during the inspection period. The trip was caused by an instrument technician mistakenly performing a surveillance on Unit 3 components instead of the shutdown Unit 2. In another event, Operations Department personnel marked a procedural step as not applicable. Additionally, several other procedural steps that ensure Low Temperature Overpressurization Protection (LTOP) were not followed. Subsequently, an LTOP system train was inoperable in a condition where the system was required. The events represent continued problems in each area. A violation with two examples of failure to follow procedures was identified (paragraph 2.d and 3.b). An unresolved item relating to corrective action to the Low Pressure Service Water isolation was also identified (paragraph 5).

REPORT DETAILS

1. Persons Contacted

Licensee Employees

- *H. Barron, Station Manager
- *J. Davis, Quality Assurance Manager
- D. Deatherage, Operations Support Manager
- *W. Foster, Superintendent, Mechanical Maintenance
- *I. Hampton, Vice President, Oconee Site
- *O. Kohler, Compliance Engineer
- C. Little, Superintendent, Instrument and Electrical (I&E)
- *M. Patrick, Performance Engineer
- *S. Perry, Assistant Licensing Coordinator
- G. Rothenberger, Superintendent, Integrated Scheduling
- *R. Sweigart, Operations Superintendent

Other licensee employees contacted included technicians, operators, mechanics, security force members, and staff engineers.

NRC Resident Inspectors:

- *P. Harmon
- *W. Poertner
- *B. Desai
- *A. Herot, Chief, Reactor Projects
Branch 3, DRP, RII

*Attended exit interview.

2. Plant Operations (71707)

a. General

The inspectors reviewed plant operations throughout the reporting period to verify conformance with regulatory requirements, Technical Specifications (TS), and administrative controls. Control room logs, shift turnover records, temporary modification log and equipment removal and restoration records were reviewed routinely. Discussions were conducted with plant operations, maintenance, chemistry, health physics, instrument & electrical (I&E), and performance personnel.

Activities within the control rooms were monitored on an almost daily basis. Inspections were conducted on day and on night shifts, during weekdays and on weekends. Some inspections were made during shift change in order to evaluate shift turnover performance. Actions observed were conducted as required by the licensee's Administrative Procedures. The complement of licensed personnel on each shift inspected met or exceeded the requirements of TS. Operators were responsive to plant annunciator alarms and were cognizant of plant conditions.

Plant tours were taken throughout the reporting period on a routine basis. The areas toured included the following:

- Turbine Building
- Auxiliary Building
- CCW Intake Structure
- Independent Spent Fuel Storage Facility
- Units 1, 2 and 3 Electrical Equipment Rooms
- Units 1, 2 and 3 Cable Spreading Rooms
- Units 1, 2 and 3 Penetration Rooms
- Units 1, 2 and 3 Spent Fuel Pool Rooms
- Unit 2 Containment
- Station Yard Zone within the Protected Area
- Standby Shutdown Facility
- Keowee Hydro Station

During the plant tours, ongoing activities, housekeeping, security, equipment status, and radiation control practices were observed.

Within the areas reviewed, licensee activities were satisfactory.

b. Plant Status

Unit 1 operated at full power for most of reporting period. On February 22, a trip of the 1A Feedwater pump occurred. A functional test of the pump's turbine trip system was being conducted at the time. The Feedwater turbine experienced an unanticipated trip, causing the Integrated Control System to initiate a unit runback to 65 percent. The runback stopped at a power level of 72 percent when the Feedwater pump turbine trip reset. The unit then began a power increase back to the previous power when operators stopped the increase at 78 percent to investigate the event. A work request was written to have I&E investigate the event. The unit returned to full power later that same day.

Unit 2 remained in a refueling outage during the reporting period.

Unit 3 was at full power for most of the period, but experienced difficulty reaching 100 percent power due to steam generator limitations. Adjustments in the delta-Tc controller were made to allow the unit to reach 100 percent. These adjustments resulted in slight quadrant power tilts during operation, and significant tilts during Xenon transients, such as after a reactor trip from power on February 27. This trip was caused by an instrumentation technician mistakenly working on a Unit 3 turbine trip relay instead of the shutdown Unit 2 trip relay. During the trip recovery, startup was delayed due to quadrant power tilts attributed to the non-uniform burnup associated with mismatched RCS cold leg (Tc) temperatures.

Since the same setting standards were also used on the pressurizer valves on Unit 3, the inspectors questioned the operability of the Unit 3 pressurizer safety valves. The licensee performed an operability evaluation and determined that the safety valves were capable of lifting such that the design safety limit of 2750 psig would not be exceeded. The licensee based the operability of the Unit 3 pressurizer safety relief valves on the fact that although the valves on Unit 3 were subjected to the same setting standards, they did not undergo the multiple adjustments or experience the post test leakage that the valves on Unit 2 experienced. Unit 3 valves were never found to have as-found lift pressures greater than 6 percent of setpoint. The absence of leakage on Unit 3 valves as compared to Unit 2 valves has historically resulted in as-found lift pressure setpoints exhibiting less drift. Therefore, the valves on Unit 3 would be bounded by the assumption made in the safety analysis and would perform their intended function. The safety relief valve setpoints on Unit 1 were set using an enhanced procedure which precludes significant setpoint drift.

Drifting of the pressure relief setpoint of the pressurizer safety valves is a generic issue and enhanced methods are being developed to minimize this drift. The NRC, Region II, coordinator for this issue was made aware of the problem at Oconee. Additionally, the resident staff will follow-up on the as-found lift pressure on Unit 3 relief valves during the upcoming refueling outage scheduled in August of 1992.

Within the areas reviewed, one example of a failure to follow procedure violation was identified.

4. Maintenance Activities (2703)

Maintenance activities were observed and/or reviewed during the reporting period to verify that work was performed by qualified personnel and that approved procedures in use adequately described work that was not within the skill of the trade. Activities, procedures, and work requests were examined to verify; proper authorization to begin work, provisions for fire, cleanliness, and exposure control, proper return of equipment to service, and that limiting conditions for operation were met.

Maintenance reviewed and witnessed in whole or in part:

MP/O/A/1800/001	Tools and Materials Inventory Checklist on Open Safety Related Systems
MP/O/A/1800/12	Installation of Piping Orifice Plate (WR 99594C)

Within the areas reviewed, licensee activities were satisfactory.

No violations or deviations were identified.

7. Exit Interview (30703)

The inspection scope and findings were summarized on March 2, with those persons indicated in paragraph 1 above. The inspectors described the areas inspected and discussed in detail the inspection findings. The licensee did not identify as proprietary any of the material provided to or reviewed by the inspectors during this inspection.

<u>Item Number</u>	<u>Description/Reference Paragraph</u>
50-269,270,287/92-08-01	Violation-Failure to Follow Procedures, (paragraphs 2.d and 3.b)
50-269,270,287/92-08-02	Unresolved Item Operability of the LPSW systems (paragraph 5)