



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

Report Nos: 50-269/85-17, 50-270/85-17, and 50-287/85-17

Licensee: Duke Power Company
422 South Church Street
Charlotte, N.C. 28242

Facility Name: Oconee Nuclear Station

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

License Nos.: DPR-38, DPR-47, and DPR-55

Inspection Conducted: June 11 - July 8, 1985

Inspectors:	<u>C. W. Burger, for</u>	<u>7/16/85</u>
	J. C. Bryant	Date Signed
	<u>C. W. Burger, for</u>	<u>7/16/85</u>
	M. K. Sasser	Date Signed
	<u>C. W. Burger, for</u>	<u>7/16/85</u>
	L. B. King	Date Signed
Approved by:	<u>H. C. Dance</u>	<u>7/16/85</u>
	H. C. Dance, Section Chief	Date Signed
	Division of Reactor Projects	

SUMMARY

Scope: This routine, unannounced inspection entailed 219 resident inspector hours on site in the areas of operations, surveillance, maintenance, and station drills.

Results: Of the four areas inspected, no items of noncompliance or deviations were identified.

REPORT DETAILS

1. Licensee Employees Contacted

- *M. S. Tuckman, Station Manager
- J. N. Pope, Superintendent of Operations
- *T. S. Barr, Superintendent of Technical Services
- *T. B. Owen, Superintendent of Maintenance
- *R. T. Bond, Compliance Engineer
- *T. C. Matthews, Technical Specialist
- *H. R. Lowery, Shift Operating Engineer

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

Resident Inspectors

- *J. C. Bryant
- *M. K. Sasser
- L. P. King

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on July 9, 1985, with those persons indicated in paragraph 1 above.

The licensee did not identify as proprietary any of the materials provided to or reviewed by the inspectors during this inspection.

3. Licensee Action on Previous Enforcement Matters

(Closed) Unresolved item 269/84-26-02, Exceeding allowable rate for reactor cooldown. This event and corrective action were reviewed and the relevant Licensee Event Report closed in Report No. 50-269/85-12.

4. Plant Operations

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 and equipment removal and restoration records were reviewed routinely. Interviews were conducted with plant operations, maintenance, chemistry, health physics 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 week days and on weekends. Some inspections were made during shift change in order to evaluate shift turnover performance. Actions observed were conducted as

required by Section 3.18 of the station directives. 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
- Units 1, 2, and 3 Electrical Equipment Rooms
- Units 1, 2, and 3 Cable Spreading Rooms
- Station Yard Zone within the Protected Area

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

Unit 1 operated at essentially full power throughout the reporting period of June 11 - July 8, 1985.

Unit 2 began the report period operating at reduced, 70%, power due to high steam generator water levels, and continued at that power until June 15 when it was shut down for steam generator pulse cleaning. The unit was started up on July 8; however, when attempting to put the generator on line the generator field breaker shorted out. The unit remained critical at low power until the end of the report period awaiting field breaker replacement. The shutdown is discussed in more detail in paragraph 7.

Unit 3 operated at 100% power until July 2 when power was reduced to 70% and a reactor coolant pump was taken off line due to low oil level in the lower oil pot. Later in the day the unit was shut down, oil added to the pot, and the unit restarted. Unit 3 reached full power on July 3 and continued full power operation through the end of the report period.

No violations or deviations were identified.

5. Surveillance Testing

The surveillance tests listed below were reviewed and/or witnessed by the inspectors to verify procedural and performance adequacy.

The completed tests reviewed were examined for necessary test prerequisites, instructions, acceptance criteria, technical content, authorization to begin work, data collection, independent verification where required, handling of deficiencies noted, and review of completed work.

The tests witnessed, in whole or in part, were inspected to determine that approved procedures were available, test equipment was calibrated, prerequisites were met, tests were conducted according to procedure, tests were acceptable and systems restoration was completed.

Surveillances witnessed in whole or in part are as follows:

PT/1/A/0600/12 (Unit 1) Turbine driven emergency feedwater pump performance test.

PT/2/A/0150/22A Operational valve functional test.

Completed surveillances reviewed are as follows:

- WR 58866 Annual inspection and maintenance on ACB #5
- WR 55891B Perform calibration of the reactor building hydrogen sampling system train B
- WR 55321A Perform LDST level instrument calibration required by TS 4.1-1
- WR 55013A Perform RPS channel D on line test required by TS
- WR 55223A Perform E/S system logic subsystem 2, RB spray, channel 8 on line instrument calibration required by TS
- WR 55222A Perform E/S system logic subsystem 2, RB isolation and cooling channel 6, on line instrument calibration
- WR 55178A Perform RPS channel D on line test required by TS
- WR 55183A Perform BWST level instrument calibration required by TS 4.1-1
- WR 55009A Perform source range-intermediate range channel test
- WR 55191A Perform NI-4 intermediate range instrument calibration

No violations or deviations were identified.

6. Maintenance Activities

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.

Completed maintenance work requests reviewed;

- WR 83661B Repair valve 1RC-53, valve frozen in open position
- WR 83550B Replace seal on A LHST pump
- WR 50773D Disassemble and inspect motor removed from Unit 3 RBCU ±A'. Change bearings and reassemble
- WR 21546B Investigate and repair RPS channel flux/flow imbalance trip, unit 1
- WR 20698B Repair fitting leaks on building spray pump B pump vent
- WR 54841C New electrical penetration just below penetration #3 TC-38 is improperly installed. Repair as necessary
- WR 21861B Repair packing leak on HVAC service water pump #2

WR 18158B Repair 3GWD-266, valve stem contacts yoke of 3GWD-3 and will not allow proper operation

WR 22383B Investigate and repair 2A2 RCP motor, leaking oil

No violations or deviations were identified.

7. Unit 2 Shutdown

On June 15, 1985, Unit 2 was shut down for steam generator cleaning. Also, during the shutdown, seals were replaced in one reactor coolant pump. Pulse cleaning of both steam generators appeared to be successful. An attempt at sludge removal, using a sludge lance, also was attempted on steam generator A, but was unsuccessful. Steam generator cleaning was observed in detail by a Region II inspector and is discussed in Report No. 50-270/85-16.

Seals were replaced in one of the reactor coolant pumps due to unusual flow indications received since the last refueling shutdown during which the seals were replaced. After the second replacement, flow indications still were incorrect, which led to the discovery of a seal water valve in which the disc had separated from the valve stem. Difficulties with a control rod drive mechanism vent valve also delayed restart of Unit 2. The unit went critical at 6:52 p.m. on July 8, but power could not be increased beyond 15% due to failure of the generator field breaker. The unit remained at low power through the end of the report period.

8. Site Drills

On June 13 the inspectors participated in a site drill in which the technical support center was set up and communications checked. In the evening of June 18, a fire drill was held in which two county fire stations participated. The drill was witnessed by the resident inspectors and also by a Regional team.

On June 19 an annual emergency drill was held in which two counties participated. This drill was witnessed by Region II inspectors and is discussed in their report. The resident inspector participated in the drill.

9. Presentation of Licensed Operator Certificates

During the report period, Region II and Oconee Resident Inspector staff participated with Oconee Plant Management in the presentation of NRC Operator and Senior Operator license certificates. Over 100 certificates were presented to Operations shift personnel as well as plant and training center staff. The presentations afforded an opportunity to recognize operator dedication and contributions at Oconee.

10. Review of Licensee Event Reports

The inspectors reviewed nonroutine event reports to verify that report details met license requirements, identified the cause of the event,

described corrective actions appropriate for the identified cause, and adequately addressed the event and any generic implications. In addition, as appropriate, the inspectors examined operating and maintenance logs, and records and internal investigation reports. Personnel were interviewed to verify that the report accurately reflected the circumstances of the event, that the corrective action had been taken or responsibility assigned to assure completion, and that the event was reviewed by the licensee, as stipulated in the TS. The following event reports were reviewed:

(Closed) LER 269/84-06, Anticipatory reactor trip caused by generator trip due to loose wire on field breaker.

The System was subsequently repaired.

(Closed) LER 269/85-05, Reactor trip on high reactor coolant system pressure. This event was discussed in Report No. 50-269/85-10. A faulty connector in a circuit board caused turbine intercept valves to close, resulting in the reactor trip. Corrective action has been taken.

(Closed) LER 270/85-02, Reactor trip during low power physics testing. Corrective action has been taken.

(Closed) LER 50-270/85-05, Reactor trip during maintenance work in EHC control cabinet. Appropriate action has been taken.