UNITED STATES
ATOMIC ENERGY COMMISSION
DIRECTORATE OF REGULATORY OPERATIONS
REGION II - SUITE 818
230 PEACHTREE STREET, NORTHWEST
ATLANTA, GEORGIA 30303

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RO Inspection Report No. 50-269/74-8

Licensee: Duke Power Company
Power Building
422 South Church Street
Charlotte, North Carolina 28201

Facility Name: Oconee Unit 1
Docket No.: 50-269
License No.: DPR-38
Category: C

Location: Seneca, South Carolina

Type of License: B&W, PWR, 2568 Mw(t)

Type of Inspection: Routine, Unannounced

Dates of Inspection: September 17-20, 1974

Dates of Previous Inspection: July 10-12, 16-18 and 24-26, 1974

Principal Inspector: T. N. Epps, Reactor Inspector
Facilities Operations Branch

Accompanying Inspector: None

Principal Inspector: T. N. Epps _____ 10-9-74
T. N. Epps, Reactor Inspector Date
Facilities Operations Branch

Reviewed By: _____ 10-9-74
F. J. Long, Chief Date
Facilities Operations Branch

SUMMARY OF FINDINGS

The purpose of this inspection was to review the licensee's program for meeting surveillance requirements on Unit 1.

I. Enforcement Action

A. Violations

The following violation is considered to be Category II, severity:

Concentrated Boric Acid Storage Tank Temperature

Section 3.2.2.7(1) of DPC's Administrative Policy Manual requires that periodic test procedures state the criteria for evaluating the acceptability of results and that adequate provisions be made to allow documentation of the acceptability or unacceptability of test results.

Contrary to the above, PT/1&2/A/600/1 contained inadequate acceptance criteria.

Corrective actions were approved before the inspection ended and the inspector had no further questions. (Details I, paragraph 3.c.)

B. Safety Items

None

II. Licensee Action on Previously Identified Enforcement Matters

A. Violations

Not inspected.

B. Safety Items

None

III. New Unresolved Items

None

IV. Status of Previously Reported Unresolved Items

73-12/1 Calibration of Effluent Monitors

Not inspected.

73-13/1 Wastewater Collection Basin Modification

Not inspected.

73-13/2 Control Rod Failures

Not inspected.

74-3/3 Training of Unlicensed Utility Operators

Not inspected.

74-5/1 Incomplete Power Escalation Testing

No change. (Details I, paragraph 2)

V. Unusual Occurrences

Not inspected.

VI. Other Significant Findings

Personnel and Organizational Changes

Mr. T. S. Barr is now chairman of the safety review committee.

VII. Management Interview

A management interview was held on September 20, 1974, with the following DPC representatives present:

J. E. Smith - Plant Superintendent
L. E. Schmid - Operating Engineer
O. S. Bradham - Maintenance and Instrument Engineer
T. S. Barr - Technical Services Engineer
J. W. Hampton - Assistant Plant Superintendent
J. W. Cox - Station Senior QA Engineer

The inspector discussed the Unit 1 refueling outage scheduled for November 20, 1974 and requested to be notified of the date when actual fuel shuffeling begins.

The items covered during this inspection were summarized, and the violation identified in Section I of this summary was discussed.

DETAILS 1 Prepared By: _____ Date
T. M. Epps, Reactor Inspector
Facilities Operations Branch

Dates of Inspection: September 17-20, 1974

Reviewed By: _____ Date
F. J. Long, Chief
Facilities Operations Branch

1. Individuals Contacted

Duke Power Company (DPC)

J. E. Smith - Plant Superintendent
L. E. Schmid - Operating Engineer
O. S. Bradham - Maintenance and Instrument Engineer
T. S. Barr - Technical Services Engineer
D. C. Smith - Chemist
W. M. McClain - Shift Supervisor
R. L. Wilson - Performance Engineer
M. Sample - Junior Engineer

2. Power Escalation Testing

The unit loss of electrical load test resulted in a reactor trip rather than a runback to 15 percent of rated power. The licensee indicated that an evaluation would be conducted and further testing may be delayed by the Unit 1 refueling outage scheduled for October 20, 1974.

The licensee also indicated that a package of information is being assembled to attempt to demonstrate that requirements of the remaining power escalation tests have been met. This information will be available in approximately three weeks.

3. Surveillance Requirements

The primary purpose of this inspection was to review the licensee's program for meeting surveillance requirements. Following is information describing items covered during this inspection.

a. Instrument Calibration

The inspector reviewed approved procedures and documented results of reactor coolant temperature instrument calibration; pressurizer pressure and pressurizer level instrument calibration; minimum nuclear power trip setpoint calibration; flux/flow/imbalance

trip setpoint calibration; and incore instrument power maps. It was also verified that these surveillance requirements were completed within the required time span as required by Oconee technical specifications.

b. Power Conversion System

Surveillance requirements were verified for the quarterly feedwater pump tests and the annual main steam stop valve test.

There were no questions on these tests.

c. Boron Systems

Boron system surveillance requirements were reviewed for the borated water storage tank and the concentrated boric acid storage tank. Instrument calibration procedures and results were reviewed as well as the periodic instrument surveillance procedure PT/1&2/A/600/1.

Section 3.2.2.7(1) of DPC's Administrative Policy Manual covering surveillance test procedures requires that each procedure state the criteria for evaluating the acceptability of results and that adequate provisions be made to allow documentation of the acceptability of test results.

Contrary to the above, PT/1&2/A/600/1 contained inadequate acceptance criteria for assuring that the technical specification limit on concentrated boric acid storage tank temperature was met. The procedure criteria required that the temperature be above 78°F. Technical Specification 3.2.2.b requires that the boric acid solution in this tank be maintained at a temperature at least 10°F above the crystallization temperature. Since there is no upper limit on boron concentration the concentration and, therefore, crystallization temperature can vary widely. On August 19, 1974, the concentration was recorded to be 12,380 ppm. Crystallization temperature at this concentration is approximately 95°F.

Site management implemented a change to the periodic surveillance procedure changing the acceptance criteria in question to 105°F. A change was also implemented to the chemical addition and sampling system operating procedure setting an upper limit of 12,000 ppm on boron concentration in the concentrated boric acid storage tank. These changes apply to all three Oconee units.

In addition, the licensee agreed to have PT/1&2/A/600/1 reviewed to determine if other surveillance requirements covered by this procedure needed similar alterations. Action to have this review [illegible] was completed.

The inspector had no further comments on this item.

d. Emergency Power Systems

Surveillance requirements were verified for the monthly Keowee operation test and the monthly Keowee diode monitor test. The licensee encountered difficulty in retrieving the Keowee diode monitor test results. It was determined that these records are maintained as part of an Oconee procedure that covers several surveillance requirements. The licensee presented records of this test for the last three months and stated that a separate procedure for the diode test would be prepared for future use.

The inspector had no further questions.

e. ECCS and Containment Systems

Procedures and results were reviewed for the following tests:

(1) High and Low Pressure Injection Pumps (Quarterly)

(2) Core Flood System (Annual)

(3) Reactor Building Spray (Annual)

(4) Reactor Building Cooling System (Annual)

The inspector had no questions on the tests.