



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
101 MARIETTA STREET, N.W., SUITE 2900
ATLANTA, GEORGIA 30323

Report No.: 50-424/87-10

Licensee: Georgia Power Company
P. O. Box 4545
Atlanta, GA 30302

Docket No.: 50-424

License Nos.: NPF-61

Facility Name: Vogtle 1

Inspection Conducted: January 18-22, 1987

Inspectors:

for
A. R. Long

Frank Jape

2/10/87
Date Signed

P. T. Burnett
P. T. Burnett

2-9-87
Date Signed

Approved by:

Frank Jape
F. Jape, Section Chief
Engineering Branch
Division of Reactor Safety

2/10/87
Date Signed

SUMMARY

Scope: This routine, unannounced inspection was in the areas of initial fuel load witnessing and review of engineering procedures.

Results: No violations or deviations were identified.

REPORT DETAILS

1. Licensee Employees Contacted

- *C. E. Belflower, QA Site Manager, Operations
- *G. B. Bockhold, General Manager Vogtle Nuclear Operations
- *J. F. D'Amico, Nuclear Safety and Compliance Manager
- *W. C. Gabbard, Senior Regulatory Specialist
- *T. Greene, Plant Manager
- *C. W. Hayes, QA Manager
- *R. E. Lide, Engineering Support Superintendent
- *W. E. Mundy, QA Audit Supervisor
- *R. F. Spinnato, Plant Engineering Supervisor
- *E. Towpin, Senior Project Engineer

Other licensee employees contacted included engineering and operations personnel.

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on January 22, 1987, 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 inspectors 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 this inspection.

5. Initial Fuel Loading Witnessing (72524)

The inspectors witnessed the loading of the first ten fuel assemblies, from the control room and in the containment at the 1/M station. At that point the fueling was delayed by a series of problems with the source range instrumentation. Proper functioning of the source range detectors had to be confirmed before more than ten assemblies could be loaded. Problems confirming proper operation of NI-31 and one of the temporary detectors appeared early in the fuel loading, and fuel loading was halted after ten

assemblies when the detectors failed the statistical reliability test. Fuel loading at Vogtle had also been delayed for a time by problems with the fuel transfer system upender. Although the inspectors did not witness the resumption of fuel loading, their observations of fuel handling and various activities to resolve the detector problems indicated that the remainder of the fuel loading would proceed in a safe and controlled manner.

The inspector verified that the fuel loading activities in progress met license commitments. Direct observation, plus reviews of logs and completed procedures, showed that procedures were being followed. Prerequisites and initial conditions were met, and changes to procedures were made and reviewed in conformance with appropriate administrative procedures. Discussions with operations personnel indicated that they had a good understanding of their duties and responsibilities.

During the delays in fuel loading, inverse multiplication plots were maintained as required, boron concentration was sampled at the frequency specified by procedures and the response of the source range instrumentation was regularly verified. Data sheet entries were legible and traceable. A computer program was used to calculate a statistical reliability factor for verifying detector response to neutrons, and the inspector independently verified the output.

The inspector noted that in several instances where questions on procedures arose, the licensee consistently chose what they considered the most conservative or prudent interpretation. One example was the decision to return the eleventh fuel assembly to the fuel storage building until the source range problems were resolved, rather than storing it at the upender. A second example involved observations by the inspector as licensee personnel planned possible revisions to the fuel loading sequence to accommodate problems with one of the drop-in detectors. In this case the licensee made a demonstrated effort to ensure that more than the minimum required number of detectors would be responding throughout the fuel loading.

During the delays in fuel loading, the inspectors observed activities of personnel on a number of different shifts, and several shift turnovers. The inspectors also spent time touring the plant. No problems were identified. The inspector noted during various entries into the containment and fuel storage buildings that housekeeping and control of personnel access were good.

6. NSSS Vendor Review of Procedures

In accordance with NUREG-0737, Item I.C.7, "NSSS Vendor Review of Procedures," Nuclear Steam Supply System (NSSS), vendor review of low-power testing, power ascension, and Emergency Operating Procedures (EOP's) was necessary to verify adequacy of the procedures. Because the licensee implemented procedures based on Westinghouse Generic Emergency Response Guidelines, additional NSSS vendor review of the EOP's was not necessary. In addition, NSSS vendor review and approval was performed for pre-operational and initial startup testing procedures, so Item I.C.7 is closed.

7. Review of Reactor Engineering Procedures (61702, 61707)

The following procedures of the Reactor Engineering Group were reviewed:

- a. 53003-C, Revision 1, "Shutdown Margin by Minimum Bank Height"
- b. 53004-C, Revision 1, "Rod Drop Time Measurement"
- c. 54013-C, Revision 1, "Reactivity Balance"
- d. 55003-C, Revision 0, "Incore/Excore Detector Calibration"
- e. 55005-C, Revision 0 "Determination of Movable Incore Detector Operating Voltages"

No problems were identified with these procedures. The appeared to be sufficiently detailed, and contain clear acceptance criteria by which to judge test acceptability.