UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
SAM NUNN ATLANTA FEDERAL CENTER
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March 17, 2000

Southern Nuclear Operating Company, Inc.
ATTN: Mr. J. B. Beasley
Vice President
Vogtle Electric Generating Plant
P. O. Box 1295
Birmingham, AL 35201

SUBJECT: NRC INTEGRATED INSPECTION REPORT NOS. 50-424/00-01 AND 50-425/00-01

Dear Mr. Beasley:

This refers to the inspection conducted January 9, 2000, through February 19, 2000, at the Vogtle Units 1 and 2 reactor facilities. The enclosed integrated report presents the results of that inspection.

During the inspection period, your conduct of activities at the Vogtle facility was generally characterized by safety-conscious operations, effective engineering and maintenance practices, and appropriate radiological work controls.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosures, will be placed in the NRC Public Document Room.

Sincerely,

(Original signed by)

Stephen J. Cahill, Chief
Reactor Projects Branch 2
Division of Reactor Projects

Docket Nos. 50-424 and 50-425
License Nos. NPF-68 and NPF-81

Enclosure: NRC Integrated Inspection Report
50-424/00-01 and 50-425/00-01

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U. S. NUCLEAR REGULATORY COMMISSION (NRC)

REGION II

Docket Nos.	50-424 and 50-425
License Nos.	NPF-68 and NPF-81
Report No:	50-424/00-01 and 50-425/00-01
Licensee:	Southern Nuclear Operating Company, Inc.
Facility:	Vogtle Electric Generating Plant Units 1 and 2
Location:	7821 River Road Waynesboro, GA 30830
Dates:	January 9, 2000 through February 19, 2000
Inspectors:	J. Zeiler, Senior Resident Inspector K. O'Donohue, Resident Inspector N. Merriweather, Engineering Inspector (Sections E1.2, E1.3, E2, E6, E7) L. Moore, Engineering Inspector (Sections E1.2, E1.3, E2, E6, E7) C. Smith, Engineering Inspector (Sections E1.2, E1.3, E2, E6, E7)
Approved by:	Stephen J. Cahill, Chief Reactor Projects Branch 2 Division of Reactor Projects

Enclosure

EXECUTIVE SUMMARY

Vogtle Electric Generating Plant Units 1 and 2
NRC Inspection Report 50-424/00-01 and 50-425/00-01

This integrated inspection included aspects of licensee operations, engineering, maintenance, and plant support. The report covers a six-week period of resident inspection. It also includes the results of an inspection by regional-based engineering inspectors.

Maintenance

- The licensee's investigation and corrective actions for the 2B Emergency Diesel Generator Number 4 link pin bushing failure that occurred during engine post-maintenance testing were thorough and proper (Section M1.1).

Engineering

- Design control for design changes and temporary modifications was consistent with regulatory requirements and station procedures. The 10 CFR 50.59 safety evaluations reviewed were of good quality in that conclusions were well documented and supported by appropriate technical information (Sections E1.2 and E1.3).

- The quality of engineering technical evaluations was good and demonstrated good technical support of operations and maintenance. Industry issues were appropriately evaluated for applicability and dispositioned by the operating experience program (Sections E2.1 and E2.2).

- Engineering backlogs were relatively small and appropriately prioritized to assure significant safety issues were addressed in a timely manner. Self-assessments and audits reviewed included a good scope of engineering activities and were effective in identifying and resolving engineering problems (Sections E6.1 and E7.1).

Report Details

Summary of Plant Status

Both Unit 1 and Unit 2 operated at essentially 100 percent Rated Thermal Power throughout the inspection period.

I. Operations

O1 Conduct of Operations

O1.1 General Observations of Operations Activities (71707)

The inspectors conducted routine control room tours and attended operations shift turnovers and daily management plant status meetings. Operator logs were reviewed to verify compliance with Technical Specifications (TS). Instrumentation, computer indications, and safety system lineups were periodically reviewed to assess system availability. No problems were identified in the above areas.

O2 Operational Status of Facilities and Equipment

O2.1 Engineered Safety Features Walkdown (71707)

The inspectors conducted a review of selected portions of the Unit 1 and Unit 2 High Head Safety Injection (HHSI) systems to verify proper component alignment and assess material conditions of the system and components. The inspectors reviewed the TS requirements, system lineup, surveillance and operating procedures, system drawings, and the Updated Final Safety Analysis Report (UFSAR). In addition, the inspectors discussed the operation and status of the system with the responsible system engineer during a plant walkdown.

The inspectors concluded that the HHSI system for each unit was properly aligned for operation. The material conditions of the system, components, and general areas were well maintained. The responsible system engineer was knowledgeable with the operation of the HHSI system and its support features. No problems were identified.

O8 Miscellaneous Operations Issues (40500) (92901)

O8.1 (Closed) Licensee Event Report (LER) 50-425/99-003: Unplanned Mode Change While Cooling Down for Refueling Outage

The inspectors reviewed the LER and discussed it with licensee personnel. The inspectors determined that the entry into Mode 5 followed by a return to Mode 4 did not result in a violation of plant TS requirements. The inspectors verified that all corrective actions described in the LER were adequate and complete. This LER was a minor issue and was closed.

II. Maintenance

M1 Conduct of Maintenance

M1.1 General Observations of Maintenance and Surveillance Activities (61726) (62707)

The inspectors observed or reviewed portions of selected maintenance and surveillance activities in progress. This included the 18-month on-line preventive maintenance activity on the 2A and 2B train emergency diesel generators (EDGs) and the event investigation into the failure of the 2B EDG Number 4 link pin bushing that occurred during post-maintenance testing on January 29, 2000.

For those maintenance and surveillance activities observed or reviewed, the inspectors determined that the activities were conducted in a satisfactory manner and that the work was properly performed in accordance with approved maintenance work orders and procedures and by qualified personnel knowledgeable of their assigned tasks. Problems encountered during the performance of activities were properly resolved. The licensee's investigation and corrective actions for the 2B EDG link pin bushing failure was thorough and proper.

M8 Miscellaneous Maintenance Issues (40500) (92902)

M8.1 (Closed) LER 50-425/99-004: Manual Reactor Trip Due to Misaligned Control Rod

The inspectors reviewed the LER and discussed it with licensee personnel. This event is discussed in NRC Integrated Inspection Report No. 50-424, 425/99-09. Corrective actions were verified to be adequate to address the control rod circuitry failure. No new information or violations of regulatory requirements were identified in the LER. Consequently, this LER is closed.

III. Engineering

E1 Conduct of Engineering

E1.1 General Observations (37551)

The inspectors observed Engineering support activities for Condition Report evaluations, review of plant equipment problems and associated corrective action plans. Engineering activities reviewed were thorough and technically sufficient. Plant equipment problems were being addressed commensurate with plant safety.

E1.2 Design Changes and Plant Modifications (37550)

The inspectors reviewed design changes and modifications completed in 1998 and 1999 to determine if licensee design controls were consistent with regulatory requirements and station procedures. The risk informed design change sample review included six major design changes, nine minor design changes, and three temporary modifications.

The inspectors concluded that design changes were implemented in accordance with regulatory requirements and station procedures. The design and licensing bases, drawings, and station procedures were appropriately updated for the as-built plant configuration. Post modification testing and inspections were appropriately specified and performed. Temporary modifications were controlled in accordance with station procedures. The inspectors did not identify any deficiencies with the licensee's implementation of the design change and modification programs.

E1.3 Review of 10 CFR 50.59 Safety Evaluations

a. Inspection Scope (37001)

The inspectors reviewed 10 CFR 50.59 safety evaluations performed in 1998 and 1999 for design changes, temporary modifications, procedure changes, and special tests. The inspectors reviewed selected safety evaluations to verify they were consistent with regulatory requirements and station procedures and that the changes did not degrade the capability of risk significant structures, systems, and components to perform their design function.

b. Observations and Findings

The inspectors determined that the licensee adequately assessed and documented whether the 10 CFR 50.59 evaluations were applicable to the changes. The appropriate screening criteria for 10 CFR 50.59 applicability were addressed and a written basis for the conclusions was provided. Sections of the UFSAR and TS impacted by the change or special test to be performed were clearly identified. Additionally, implementation of the "Unreviewed Safety Question Criteria" was technically adequate in that it bounded the changes that were made and provided a basis for the answers which demonstrated consistency between design bases and the plants current licensing bases for design changes. Changes to the UFSAR were provided as attachments to the 10 CFR 50.59 safety evaluations and clearly showed the scope of the changes that were required to be made to the licensing basis document. The inspectors did not identify any deficiencies with the licensee's implementation of the 10 CFR 50.59 program.

c. Conclusions

The 10 CFR 50.59 safety evaluations reviewed by the inspectors were of good quality in that conclusions were well documented and supported by appropriate technical information. The safety evaluations were performed consistent with regulatory guidance and station procedures.

E2 Engineering Support of Facilities and Equipment

E2.1 Resolution of Technical Issues and Plant Support (37550)

The inspectors reviewed engineering involvement with the resolution of technical issues to support maintenance and operations. Additionally, engineering performance in completing assigned work orders and action items associated with condition reports (CRs) was assessed. Technical resolution involvement was primarily demonstrated by the station and corporate engineering support documented in requests for engineering review (RERs) and requests for corporate engineering assistance (REAs). The average completion time for REAs was 41 days with 384 REAs initiated in 1999. These requests for station engineering involvement included a feed back mechanism for the originator to evaluate the quality of engineering performance. The evaluations exhibited favorable comments by maintenance and operations departments. There were 125 requests for corporate engineering support documented in REAs. The quality of technical information in the RERs and REAs was satisfactory in that they demonstrated a good knowledge of the design and licensing bases from both the station and corporate engineering organizations. The response time for work orders and CRs, which was also monitored by engineering management, was reasonable and indicated a management focus on timely plant support. Engineering resolution of technical issues and support of the maintenance and operations staff was satisfactory.

E2.2 Industry Operating Experience Program (37550)

The inspectors reviewed the licensee's evaluations for a sample of 12 industry issues involving six NRC Information Notices and six 10 CFR 21 reports. The inspectors verified that the licensee maintained the design basis for the plant in light of the potential problems described in the operating experience information and met the requirement of station procedures. The inspectors concluded that issues reviewed were adequately evaluated for applicability and extent of condition. Appropriate corrective actions had been implemented or planned.

E6 Engineering Organization and Administration

E6.1 Engineering Backlog (37550)

The inspectors reviewed engineering work training systems to determine the extent of any backlog and verify appropriate prioritization was accomplished to assure that safety significant issues were addressed. Backlog engineering work included station RERs, REAs, CRs, work orders, minor design changes, and design change requests. The licensee monitored the size and age of backlogs of engineering work and established internal goals to facilitate timely completion of assigned tasks. Management oversight was the primary mechanism for prioritization and provided assurance that significant safety issues were appropriately addressed. Program goals within the corrective action program assured the timely completion of CRs assigned to Engineering. The size of backlogs was relatively small and they were appropriately dispositioned.

E7 Quality Assurance in Engineering Activities

E7.1 Engineering Self Assessments

a. Inspection Scope (37550)

The inspectors selected and reviewed portions of nine (1998 and 1999) licensee self-assessment reports, including four Safety Audit and Engineering Review reports, to assess the effectiveness of the licensee's self-assessment program in identifying and correcting performance related issues and concerns primarily involving engineering support activities.

b. Observations and Findings

The inspectors noted that the assessment teams included industry and peer representatives knowledgeable in the areas being assessed. The inspectors also noted that no significant findings or reportability items were identified by the licensee. However, a large number of design and licensing issues were identified and appropriately resolved during technical assessments, such as the vertical slice safety system self-assessment of the Nuclear Service Cooling Water system. Action items were assigned for recommendations identifying areas for improvement. The inspectors noted that the scope of self-assessments included a good range of engineering activities and in particular focused on activities to maintain the present quality of engineering resources. The findings identified in the assessments were adequately addressed. The self-assessment results were being reported to appropriate station management. The reports were found to be consistent with the station self-assessment program procedures.

c. Conclusions

The inspectors concluded that the self-assessment process was effective in identifying and resolving engineering problems. The assessments included a good scope of engineering activities.

IV. Plant Support

R1 Radiological Protection and Chemistry Controls

R1.1 General Comments (71750)

The inspectors routinely observed radiologically controlled areas to verify adequacy of access controls, locked areas, personnel monitoring, surveys, and postings. Radiological controls were adequate. Radiological areas were properly posted and high radiation areas were labeled. Personnel were attentive and followed radiological requirements. The licensee provided thorough management oversight of radiological activities.

V. Management Meetings and Other Areas

X1 Exit Meeting Summary

The inspectors presented the inspection results to members of licensee management at the conclusion of the inspection on February 24, 2000. An interim exit was held on January 28, 2000, to discuss the results of a regional-based engineering inspection. The licensee acknowledged the findings presented. No information was examined during the inspection that was considered proprietary.

PARTIAL LIST OF PERSONS CONTACTED

Licensee

W. Bargeron, Manager Operations
R. Brown, Manager, Training and Emergency Preparedness
W. Burmeister, Manager Engineering Support
G. Frederick, Plant Operations Assistant General Manager
J. Gasser, Nuclear Plant General Manager
K. Holmes, Manager Maintenance
P. Rushton, Plant Support Assistant General Manager
M. Sheibani, Nuclear Safety and Compliance Supervisor

INSPECTION PROCEDURES USED

IP 37001:	10 CFR 50.59 Safety Evaluation Review Program
IP 37550:	Offsite Engineering
IP 37551:	Onsite Engineering
IP 40500:	Effectiveness of Licensee Controls in Identifying, Resolving, and Preventing Problems
IP 61726:	Surveillance Observation
IP 62707:	Maintenance Observation
IP 71707:	Plant Operations
IP 71750:	Plant Support
IP 92901:	Followup - Operations
IP 92902:	Followup - Maintenance

ITEMS OPENED, CLOSED, AND DISCUSSED

Closed

50-425/99-003	LER	Unplanned Mode Change While Cooling Down for Refueling Outage (Section O8.1)
50-425/99-004	LER	Manual Reactor Trip Due to Misaligned Control Rod (Section M8.1)