UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
SAM NUNN ATLANTA FEDERAL CENTER
61 FORSYTH STREET SW SUITE 23T85
ATLANTA, GEORGIA 30303-8931

October 26, 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: VOGTLE ELECTRIC GENERATING PLANT - NRC INTEGRATED INSPECTION REPORT NOS. 50-424/00-04 AND 50-425/00-04

Dear Mr. Beasley:

On September 30, 2000, the NRC completed an inspection at your Vogtle Units 1 and 2 reactor facilities. The enclosed integrated report presents the results of that inspection which were discussed on October 6, 2000, with Mr. G. Frederick and other members of your staff.

This inspection was an examination of activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and the conditions of your license. Within these areas, the inspection consisted of a selected examination of procedures and representative records, observations of activities, and interviews with personnel. Based on the results of this inspection, no findings were identified.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at *http://www.nrc.gov/NRC/ADAMS/index.html* (the Public Electronic Reading Room).

Sincerely,

/RA/
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
50-424/00-04 and 50-425/00-04

cc w/encl: (See Page 2)

cc w/encl:
J. D. Woodard
Executive Vice President
Southern Nuclear Operating Company, Inc.
Electronic Mail Distribution

J. T. Gasser
General Manager, Plant Vogtle
Southern Nuclear Operating Company, Inc.
Electronic Mail Distribution

J. A. Bailey
Manager-Licensing
Southern Nuclear Operating Company, Inc.
Electronic Mail Distribution

Director, Consumers' Utility Counsel Division
Governor's Office of Consumer Affairs
2 M. L. King, Jr. Drive
Plaza Level East; Suite 356
Atlanta, GA 30334-4600

Office of Planning and Budget
Room 615B
270 Washington Street, SW
Atlanta, GA 30334

Office of the County Commissioner
Burke County Commission
Waynesboro, GA 30830

Director, Department of Natural Resources
205 Butler Street, SE, Suite 1252
Atlanta, GA 30334

Manager, Radioactive Materials Program
Department of Natural Resources
Electronic Mail Distribution

Attorney General
Law Department
132 Judicial Building
Atlanta, GA 30334

cc w/encl cont’d: (See page 3)

cc w/encl cont'd:
Resident Manager
Oglethorpe Power Corporation
Alvin W. Vogtle Nuclear Plant
Electronic Mail Distribution

Charles A. Patrizia, Esq.
Paul, Hastings, Janofsky & Walker
10th Floor
1299 Pennsylvania Avenue
Washington, D. C. 20004-9500

Arthur H. Domby, Esq.
Troutman Sanders
NationsBank Plaza
600 Peachtree Street, NE, Suite 5200
Atlanta, GA 30308-2216

Senior Engineer - Power Supply
Municipal Electric Authority
of Georgia
Electronic Mail Distribution

Distribution w/encl:
R. Assa, NRR
PUBLIC

OFFICE	RII:DRP	RII:Vogtle	RII:Vogtle	RII:DRS	RII:DRS		
SIGNATURE	BLH	JZeiler	JZeiler (for)	KB	WB		
NAME	BHolbrook	JZeiler	TMorrissey	DForbes	WBearden		
DATE	10/ /2000	10/ /2000	10/ /2000	10/18/2000	10/19/2000	10/ /2000	10/ /2000
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

OFFICIAL RECORD COPY DOCUMENT NAME: C:\0004-johnvo1.wpd

U. S. NUCLEAR REGULATORY COMMISSION (NRC)

REGION II

Docket Nos.	50-424 and 50-425
License Nos.	NPF-68 and NPF-81
Report No:	50-424/00-04 and 50-425/00-04
Licensee:	Southern Nuclear Operating Company, Inc. (SNC)
Facility:	Vogtle Electric Generating Plant Units 1 and 2
Location:	7821 River Road Waynesboro, GA 30830
Dates:	July 2, 2000 through September 30, 2000
Inspectors:	J. Zeiler, Senior Resident Inspector T. Morrissey, Resident Inspector Kathleen O'Donohue, Resident Inspector D. Forbes, Radiation Protection Specialist (Sections 2OS1 and 2OS2) W. Bearden, Maintenance Inspector (Section 1R08)
Approved by:	Stephen J. Cahill, Chief Reactor Projects Branch 2 Division of Reactor Projects

Enclosure

SUMMARY OF FINDINGS

IR 05000424-00-04, IR 05000425-00-04, on 07/02-09/30/2000; Southern Nuclear Operating Company; Vogtle Electric Generating Plant, Units 1 and 2. Resident Inspector Operations Report.

The inspection was conducted by resident inspectors, a regional radiation specialist, and a regional reactor maintenance inspector. There were no findings identified during this inspection.

Report Details

Summary of Plant Status

Unit 1 operated at essentially 100 percent Rated Thermal Power (RTP) until August 15, at which time a coastdown was initiated in preparation for refueling outage 1R9. On September 17, the unit was taken offline to begin the outage. At the end of the inspection period, the refueling outage was ongoing.

Unit 2 operated at essentially 100% RTP throughout the inspection period.

1. REACTOR SAFETY
Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity

1R04 Equipment Alignment

.1 Partial System Walkdown

a. Inspection Scope

The inspectors conducted partial walkdowns of the following systems to evaluate the operability of selected trains or backup systems when the redundant train or system was inoperable or out of service. The walkdowns included a review of plant procedures and drawings to determine the correct system lineups and an evaluation of conditions which could affect the operability of the redundant train or backup system.

- 1A and 1B Containment Cooling System
- 1A and 1B Nuclear Service Cooling Water (NSCW) System
- 2A Residual Heat Removal (RHR) System
- 2A Emergency Diesel Generator (EDG) and associated train electrical alignment

b. Issues and Findings

No findings were identified.

.2 Complete System Walkdown

a. Inspection Scope

The inspectors conducted a complete system walkdown on accessible portions of the 2A and 2B Auxiliary Feedwater (AFW) System. The walkdown emphasized material condition and correct system alignment. The walkdown included reviews of (1) operating procedures, abnormal operating procedures, emergency operating procedures, technical specifications (TS), Updated Final Safety Analysis Report (UFSAR) and plant drawings to determine correct system lineup, and (2) outstanding maintenance work requests, action items and condition reports. The inspectors also held discussions with the system engineer on any temporary modifications, operator workarounds and the current maintenance rule status of the system.

b. Issues and Findings

No findings were identified.

1R05 Fire Protection

a. Inspection Scope

The inspectors periodically reviewed the licensee's fire protection limiting condition for operation log. The inspectors reviewed the status of ongoing surveillance activities to determine whether they were current to support the operability of the fire protection system. The inspectors also observed the fire detection and suppression equipment in the following areas to determine if any conditions existed which would impair the operability of that equipment.

- Unit 1 and Unit 2 control room cable spreading rooms
- 1A and 1B NSCW buildings
- 1A and 1B AFW rooms
- 2B EDG room
- 1A and 1B RHR pump rooms
- 1B EDG room

b. Issues and Findings

No findings were identified.

1R08 Inservice Inspection Activities

a. Inspection Scope

The inspectors evaluated inservice inspection (ISI) and repair and replacement activities during the ongoing Unit 1 refueling outage to determine the effectiveness of the licensee's American Society of Mechanical Engineers (ASME) Section XI ISI program. Activities included review of radiographs of completed welding on ASME Class 2 service air and fire protection system piping located within the containment, review of examination reports for completed ultrasonic (UT) and magnetic particle (MT) examinations of risk significant components, observation of UT examination of steam generator welds in the containment, and review of the licensee's program for eddy current testing of steam generator tubes. The inspectors evaluated compliance with ASME code requirements, reviewed non-destructive (NDE) methods, reviewed NDE examiner qualifications, and evaluated NDE inspection results. The inspectors also reviewed several notification of indication reports and verified that identified problems were entered into the licensee's corrective action program as applicable.

The inspection included review of the following documents:

SNC Procedure AUX-H/F/V-300, Qualification of Nondestructive Examination Personnel, Rev. 13

SNC Inspection and Testing Services (ITS) Procedure UT-V-404, Manual and/or Mechanized Ultrasonic Examination of Full-Penetration Welds, Rev. 10

SNC ITS Procedure UT-V-422, Manual Ultrasonic Examination of Bolts and Studs Greater than 2 Inches in Diameter, Rev. 5

SNC ITS Procedure MT-V-505, Magnetic Particle Examination, Rev. 4

b. Issues and Findings

No findings were identified.

1R12 Maintenance Rule Implementation

a. Inspection Scope

For the equipment issues described in the following Condition Reports (CRs), the inspectors reviewed the licensee's implementation of the Maintenance Rule (10 CFR 50.65) regarding characterization of failures, a(1) or a(2) classification, a(2) performance criteria or a(1) performance goals, and corrective actions.

- CR 2000000112, failure of steam generator atmospheric relief valve 2PV3020
- CR 2000001123, failure of 1B motor driven AFW room cooling fan
- CR 2000001226, failure of Unit 1containment cooler fan breaker
- CR 2000001375, failure of piping penetration system damper 1PV2550A
- CR 2000001385, failure of 7300 process system power supply for input to P-13

b. Issues and Findings

No findings were identified.

1R13 Maintenance Risk Assessment and Emergent Work Evaluation

a. Inspection Scope

For the maintenance work orders (MWOs) or maintenance activities listed below, the inspectors evaluated: (1) the necessary steps taken to plan and control the work activities; (2) the effectiveness of the risk assessments performed before the maintenance activities were conducted; and, (3) implementation of risk management controls, such as, establishing compensatory actions, minimizing the duration of the activity, obtaining appropriate management approval, and informing appropriate plant staff.

- MWO 20002026, troubleshooting of stroke time failure of Unit 2 atmospheric relief valve 2PV3020
- MWO 29901287, troubleshooting of Unit 2 moisture separator drain tank normal level control failure
- MWO 10002943, corrective maintenance to replace 1B EDG keepwarm lube oil filter due to high differential pressure
- MWO 20002150, replace damaged pump bearings on normal charging pump
- System outage activities on 1A RHR equipment
- MWO 19902878, clean/inspect 1B RHR pump motor

b. Issues and Findings

No findings were identified.

1R15 Operability Evaluations

a. Inspection Scope

The inspectors reviewed the following evaluations of degraded equipment or non-conforming conditions. The inspectors evaluated the technical adequacy of the evaluations to ensure that operability determinations were properly justified and the subject component or system remained available to perform its safety function.

- CRs 2000000698 and 2000000896, potential seismic qualification problem with plant manual/automatic control stations
- CR 2000001123, trip of 1B motor driven AFW room cooling fan
- CR 2000001413, Unit 1 RHR hot leg injection relief valve discovered with pipe plug in bonnet leak off port
- CR 2000001598, broken return spring on check valve 1-1301-U4-404, steam supply to Unit 1 turbine driven AFW pump

b. Issues and Findings

No findings were identified.

1R16 Operator Workarounds

a. Inspection Scope

The inspectors reviewed the control room logs, operator turnover logs, clearance and tagging logs, caution tag logs, out of normal configuration log, MWOs, and CRs to identify any potential operator workarounds. Any identified workarounds were evaluated for affect on either the functional capability of the related system or human reliability in responding to an initiating event.

b. Issues and Findings

No findings were identified.

1R17 Permanent Plant Modifications

a. Inspection Scope

The inspectors reviewed Design Change Package (DCP) 00-VAN00343, Rod Control Lag Addition and DCP 00-VAN0031, On-Line Average Temperature Reduction at End-of-Cycle. The inspectors evaluated the adequacy of the 10 CFR 50.59 evaluation and reviewed the UFSAR and system design criteria. The inspectors also verified that the modifications did not place the plant in an increased risk configuration.

b. Issues and Findings

No findings were identified.

1R19 Post Maintenance Testing

a. Inspection Scope

The inspectors witnessed the post maintenance testing associated with the following MWOs. The inspectors also reviewed test procedures and records to determine if the scope of testing adequately verified that the work performed was correctly completed and demonstrated that the affected equipment was functional and operable.

- MWO 19901905, replace trip and throttle valve spring on Unit 1 turbine driven AFW pump
- MWO 10000907, replace fuel oil storage tank discharge safety relief valve on 1A EDG
- MWO 10002943, troubleshooting keepwarm lube oil filter high differential pressure on 1B EDG
- MWO 10003022, replace thermal overload for 1A piping penetration damper motor
- MWO 19902549, replace relay for Unit 1NSCW pump 2 discharge valve
- MWOs 10001238, 19900097, and 10001850, preventive maintenance on Unit 1 Component Cooling Water Pump No. 3

b. Issues and Findings

No findings were identified.

1R20 Refueling and Outage Activities

a. Inspection Scope

The inspectors reviewed the following activities accomplished during the scheduled Unit 1 refueling outage (1R9). These activities were inspected for conformance with applicable plant procedures and Technical Specifications. Selected aspects of each of these activities were also witnessed by the inspectors.

- outage planning
- shutdown risk assessments
- reactor cooldown and initiation of shutdown cooling
- reduced reactor cooling system inventory operations
- equipment clearances
- refueling operations

b. Issues and Findings

No findings were identified.

1R22 Surveillance Testing

a. Inspection Scope

The inspectors reviewed the following surveillance test procedures, witnessed the testing, and reviewed test records to determine if the testing adequately demonstrated that the affected equipment was functional and operable.

- 14980-2, Diesel Generator Operability Test (for 2A EDG)
- 14666-1, Train A Diesel Generator and Engineered Safety Features Actuation System Test (for 1A EDG)
- 14490-1, Containment Cooling System Operability Test (for Unit 1 Fan No. 2)
- 14805-1, Residual Heat Removal Pump and Check Valve IST and Response Time Test (for 1A RHR)
- 14803-1, NSCW Pumps and Discharge Check Valves Inservice Test and Response Time Test (for Unit 1 NSCW pump No. 3)
- 14825-1, Quarterly Inservice Valve Test (for Unit 1 valve 1HV2134)

b. Issues and Findings

No findings were identified.

1R23 Temporary Plant Modifications

a. Inspection Scope

The inspectors reviewed the following temporary modification (TM) packages and associated 10 CFR 50.59 evaluations to determine if system operability/availability was affected, configuration control was maintained, installation was in accordance with modification documents, and post installation testing was performed:

- TM 2000-V1T032, change vibration alarm setpoint of Unit 1 No. 7 main turbine bearing
- TM 2000-V2T038, replace Unit 2 main feedwater pump turbine speed indication

b. Issues and Findings

No findings were identified.

Cornerstone: Emergency Preparedness

1EP6 Drill Evaluation

a. Inspection Scope

On August 3, the inspectors observed an emergency response facility activation drill. The inspectors observed licensee activities in the main control room (simulator) and Technical Support Center to assess whether classification, notification, and protective action recommendation activities were in accordance with applicable Emergency Plan Implementing Procedures. Additionally, the inspectors evaluated the adequacy of the licensee's post drill critique.

b. Issues and Findings

No findings were identified.

2. RADIATION SAFETY

Cornerstone: Occupational Radiation Safety

2OS1 Access Control to Radiological Significant Areas

a. Inspection Scope

The inspectors reviewed radiological access controls and verified their implementation during the ongoing Unit 1 Refueling Outage. The review included administrative and engineering controls for high radiation, locked-high radiation, and very high radiation areas. Pre-job briefings, work in progress, Health Physics technician job coverage were observed, and personnel dosimetry results and exposure investigation reports were reviewed and discussed. Licensee CRs documented since the last inspection were reviewed. Licensee activities were reviewed against UFSAR, TS, and 10 CFR Part 20 Requirements.

b. Issues and Findings

No findings were identified.

2OS2 As Low As Reasonably Achievable (ALARA) Planning and Controls

a. Inspection Scope

The inspectors performed plant walkdowns to observe job site implementation of ALARA controls, reviewed selected Radiation Work Permits, and attended ALARA briefings for higher dose jobs performed during the ongoing Unit 1 Refueling Outage. Licensee activities were reviewed against UFSAR, TSs, and 10 CFR Part 20 Requirements.

b. Issues and Findings

No findings were identified.

4. OTHER ACTIVITIES

4OA1 Performance Indicator (PI) Verification

Initiating Events

a. Inspection Scope

The inspectors verified the data submitted by the licensee to the NRC for the three initiating event PIs (unplanned reactor scrams, reactor scrams with loss of normal decay heat removal, and unplanned power changes), from June 1998 through August 2000. The data was verified using the licensee's Monthly Operating Reports, operator logs, Licensee Event Reports, NRC Inspection Reports, and other licensee information.

b. Issues and Findings

No findings were identified.

4OA5 Other

Institute of Nuclear Power Operations (INPO) Assessment Report Review

a. Inspection Scope

The inspectors reviewed the final report of the INPO annual assessment of site activities conducted in December 1999. The inspectors reviewed the report to ensure that issues identified were consistent with the NRC perspectives of licensee performance and if any significant safety issues were identified that needed further NRC followup.

b. Issues and Findings

No findings were identified.

4OA6 Management Meetings

Exit Meeting Summary

The inspectors presented the inspection results to Mr. G. Frederick, Plant Operations Assistant General Manager, and other members of licensee management at the conclusion of the inspection on October 6, 2000. Interim exits were held on September 22 to discuss the results of a region-based radiation protection inspection and September 27 to discuss the results of a region-based inservice inspection review. The licensee acknowledged the findings presented. No proprietary information was identified.

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

NRC

S. Cahill, Chief, Region II Reactor Projects Branch 2

ITEMS OPENED, CLOSED, AND DISCUSSED

None

Attachment: NRC's Revised Reactor Oversight Process Summary

NRC's REVISED REACTOR OVERSIGHT PROCESS

The federal Nuclear Regulatory Commission (NRC) recently revamped its inspection, assessment, and enforcement programs for commercial nuclear power plants. The new process takes into account improvements in the performance of the nuclear industry over the past 25 years and improved approaches of inspecting and assessing safety performance at NRC licensed plants.

The new process monitors licensee performance in three broad areas (called strategic performance areas): reactor safety (avoiding accidents and reducing the consequences of accidents if they occur), radiation safety (protecting plant employees and the public during routine operations), and safeguards (protecting the plant against sabotage or other security threats). The process focuses on licensee performance within each of seven cornerstones of safety in the three areas:

Reactor Safety	Radiation Safety	Safeguards
● Initiating Events	● Occupational	● Physical Protection
● Mitigating Systems	● Public	
● Barrier Integrity		
● Emergency Preparedness		

To monitor these seven cornerstones of safety, the NRC uses two processes that generate information about the safety significance of plant operations: inspections and performance indicators. Inspection findings will be evaluated according to their potential significance for safety, using the Significance Determination Process, and assigned colors of GREEN, WHITE, YELLOW or RED. GREEN findings are indicative of issues that, while they may not be desirable, represent very low safety significance. WHITE findings indicate issues that are of low to moderate safety significance. YELLOW findings are issues that are of substantial safety significance. RED findings represent issues that are of high safety significance with a significant reduction in safety margin.

Performance indicator data will be compared to established criteria for measuring licensee performance in terms of potential safety. Based on prescribed thresholds, the indicators will be classified by color representing varying levels of performance and incremental degradation in safety: GREEN, WHITE, YELLOW, and RED. GREEN indicators represent performance at a level requiring no additional NRC oversight beyond the baseline inspections. WHITE corresponds to performance that may result in increased NRC oversight. YELLOW represents performance that minimally reduces safety margin and requires even more NRC oversight. RED indicates performance that represents a significant reduction in safety margin but still provides adequate protection to public health and safety.

The assessment process integrates performance indicators and inspection so the agency can reach objective conclusions regarding overall plant performance. The agency will use an Action Matrix to determine in a systematic, predictable manner which regulatory actions should be taken based on a licensee's performance. The NRC's actions in response to the significance (as represented by the color) of issues will be the same for performance indicators as for inspection findings. As a licensee's safety performance degrades, the NRC will take more and increasingly significant action, which can include shutting down a plant, as described in the Action Matrix.

More information can be found at *http://www.nrc.gov/NRR/OVERSIGHT/index.html*.

Attachment