UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
SAM NUNN ATLANTA FEDERAL CENTER
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ATLANTA, GEORGIA 30303-8931

April 23, 2004

EA-04-085

Southern Nuclear Operating Company, Inc.
ATTN: Jeffrey T. Gasser, Vice President
Vogtle Electric Generating Plant
P. O. Box 1295
Birmingham, AL 35201-1295

SUBJECT: VOGTLE ELECTRIC GENERATING PLANT - NRC INTEGRATED INSPECTION REPORT 05000424/2004003 AND 05000425/2004003 AND NOTICE OF ENFORCEMENT OF DISCRETION (NOED) NO. 03-6-004

Dear Mr. Gasser:

On March 27, 2004, the US Nuclear Regulatory Commission (NRC) completed an inspection at your Vogtle Electric Generating Plant (VEGP), Units 1 and 2. The enclosed integrated inspection report documents the inspection results, which were discussed on April 6, 2004, with Mr. W. Kitchens and other members of your staff.

The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

Based on the results of the inspection, no findings of significance were identified by the NRC. However, one licensee-identified violation, which was determined to be of very low safety significance, is listed in Section 4OA7 of this report. If you contest this non-cited violation, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the United States Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington DC 20555-0001; with copies to the Regional Administrator, Region II; the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Resident Inspector at the VEGP.

In accordance with 10 CFR 2.390 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/reading-rm/adams.html (the Public Electronic Reading Room).

Sincerely,

/RA/

Brian R. Bonser, Chief
Reactor Projects Branch 2
Division of Reactor Projects

Docket Nos.: 50-424, 50-425
License Nos.: NPF-68, NPF-81

Enclosure: NRC Integrated Inspection Report Nos. 05000424/2004003
and 05000425/2004003
w/Attachment: Supplemental Information

cc w/encl: (See page 3)

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U. S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket Nos.:	50-424, 50-425
License Nos.:	NPF-68, NPF-81
Report Nos.:	05000424/2004003 and 05000425/2004003
Licensee:	Southern Nuclear Operating Company, Inc. (SNC)
Facility:	Vogtle Electric Generating Plant
Location:	7821 River Road Waynesboro, GA 30830
Dates:	December 28, 2003 - March 27, 2004
Inspectors:	J. Zeiler, Senior Resident Inspector T. Morrissey, Resident Inspector
Approved by:	Brian R. Bonser, Chief Reactor Projects Branch 2 Division of Reactor Projects

Enclosure

SUMMARY OF FINDINGS

IR 05000424/2004-003, 05000425/2004-003; 12/28/2003 - 03/27/2004; Vogtle Electric Generating Plant, Units 1 and 2; routine integrated inspection report.

The report covered a three-month period of inspection by resident inspectors. One licensee-identified non-cited violation (NCV) was identified. The significance of most findings is indicated by their color (Green, White, Yellow, or Red) using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process" (SDP). Findings for which the SDP does not apply may be Green or be assigned a severity level after NRC management review. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described NUREG-1649, "Reactor Oversight Process," Revision 3, dated July 2000.

A. NRC-Identified and Self-Revealing Findings

No findings of significance were identified.

B. Licensee-Identified Violations

One violation of very low safety significance, which was identified by the licensee, has been reviewed by the inspectors. Corrective actions taken or planned by the licensee have been entered into the licensee's corrective action program. This violation and the associated corrective action tracking number are listed in Section 4OA7 of this report.

REPORT DETAILS

Summary of Plant Status

Unit 1 operated at essentially 100 percent Rated Thermal Power (RTP) until March 26 when power was reduced to approximately 30 percent to repair the main generator voltage regulation and excitation controls' backup power supply. On March 27, a manual reactor trip was initiated at 34 percent power as a result of a main feedwater pump speed control problem. At the end of the report period, the unit was in Mode 3.

Unit 2 operated at essentially 100 percent RTP until January 31 when power was reduced to approximately 30 percent to repair a main generator hydrogen leak. The unit was returned to 100 percent on February 3 and operated at 100 percent for the reminder of the report period.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

1R01 Adverse Weather Protection

a. Inspection Scope

On January 7-8 and January 26, the inspectors reviewed procedures 11877-1/2, Cold Weather Checklist, to verify the licensee had implemented actions for specific cold weather conditions to limit the risk of freeze-related initiating events and to adequately protect mitigating systems. The inspectors walked down level instrument piping associated with both units' refueling water storage tanks and condensate storage tanks to evaluate implementation of plant freeze protection. Additionally, all four Nuclear Service Cooling Water (NSCW) towers were inspected for insulation/heat trace degradation on NSCW piping and to verify there was no substantial ice accumulation.

b. Findings

No findings of significance were identified.

1R04 Equipment Alignment

a. Inspection Scope

The inspectors performed partial walkdowns of the following six systems to verify correct system alignment while redundant or backup equipment was inoperable. The inspectors checked for correct valve and electrical power alignments by comparing positions of valves, switches, and breakers to the procedures and drawings listed in the Attachment. Additionally, the inspectors reviewed the condition report (CR) database to verify that equipment alignment problems were being identified and appropriately resolved.

- 2B Motor Driven Auxiliary Feedwater (MDAFW) pump and Turbine Driven Auxiliary Feedwater (TDAFW) pump systems while 2A MDAFW pump discharge valves were removed from service

- Unit 1 Train A and Train B NSCW while NSCW pump 2 was out of service
- 2A Emergency Diesel Generator (EDG) system while 2B EDG was out of service
- 2B EDG system while 2A EDG was out of service
- 2A Residual Heat Removal (RHR) system while 2B RHR system was out of service
- 2B RHR system while 2A RHR system was out of service

b. Findings

No findings of significance were identified.

1R05 Fire Protection

a. Inspection Scope

The inspectors walked down the following 10 plant areas to verify the licensee was controlling combustible materials and ignition sources as required by procedures 92015-C, Use, Control, and Storage of Flammable/Combustible Materials, and 92020-C, Control of Ignition Sources. The inspectors assessed the observable condition of fire detection, suppression, and protection systems and reviewed the licensee's fire protection Limiting Condition for Operation log and CR database to verify that corrective actions for degraded equipment were identified and appropriately prioritized. Additionally, the inspectors reviewed the licensee's fire protection program to verify the requirements of Updated Final Safety Analysis Report (UFSAR) Section 9.5.1, Fire Protection Program, and Appendix 9A, Fire Hazards Analysis, were met. Documents reviewed are listed in the Attachment.

- 2A High Head Safety Injection (HHSI) pump room and valve gallery
- 1A NSCW building and tunnels
- 2A EDG room
- 2B EDG room
- Unit 1 Auxiliary Building Level A
- Unit 2 Control Building Level B
- Unit 1 TDAFW DC switchgear room
- 1A and 1B MDAFW pump rooms
- 2A Safety Injection (SI) pump room
- 2B RHR pump and Essential Cooler Fan rooms

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification

a. Inspection Scope

The inspectors observed operator performance during licensed operator simulator training associated with Requalification Segment 20042. The inspectors evaluated operator performance during the conduct of a simulator scenario on March 9 that began with a failed low steam generator level channel, followed by a failed open pressurizer spray valve, and ending with a steam generator tube rupture. The inspectors specifically assessed the following areas:

- correct use of abnormal and emergency operating procedures including 18001-C, Primary Systems Instrumentation Malfunction; 19000-C, E-0 Reactor Trip or Safety Injection; 19001-C, ES-0.1 Reactor Trip Response; and, 19030-C, E-3 Steam Generator Tube Rupture
- ability to implement appropriate event reporting and emergency plan actions in accordance with procedures 91001-C, Emergency Classification and Implementing Instructions, and 91002-C, Emergency Notifications
- ability to identify and implement appropriate Technical Specification (TS) actions
- clarity and formality of communications in accordance with procedure 10000-C, Conduct of Operations
- proper control board manipulations including critical operator actions
- quality of supervisory command and control
- effectiveness of post-evaluation critique

b Findings

No findings of significance were identified.

1R13 Maintenance Risk Assessments and Emergent Work Evaluation

a. Inspection Scope

The inspectors reviewed the following nine risk significant and emergent maintenance work orders (MWOs) to verify plant risk was properly assessed by the licensee prior to conducting the activities. The inspectors reviewed risk assessments and risk management controls implemented for these activities to verify they were completed in accordance with procedure 00354-C, Maintenance Scheduling, and 10 CFR 50.65(a)(4). Additionally, the inspectors reviewed the CR database to verify that maintenance risk assessment problems were being identified at the appropriate level, entered into the corrective action program, and appropriately resolved.

- 2A MDAFW pump discharge valve outage (MWOs 20303187 and 20303188)
- 2B EDG system outage (MWOs 20300629, 20201575, 20300533 and 20301310)
- 2A EDG system outage (MWOs 20301283, 20300628, and 20300125)
- Investigate 2A SI pump low motor cooler flow (MWO 20400300)
- 1A MDAFW pump discharge valve outage (MWOs 20303187 and 20303188)

- 1A EDG Overspeed Trip Valve Replacement (MWO 10400433)
- Troubleshoot abnormal operation of Unit 2 Loop 4 Pressurizer Spray Valve (MWO 20400502)
- 2B RHR system outage (MWOs 20300166, 20301346, 20303018, and 20301630)
- Troubleshoot and repair 2B EDG jacket water heater failure (MWO 20400851)

b. Findings

No findings of significance were identified.

1R14 Operator Performance During Non-Routine Plant Evolutions

a. Inspection Scope

For the six non-routine plant evolutions described below, the inspectors reviewed the operating crew's performance, reviewed operator logs, control board indications, and plant computer data to verify that operator response was in accordance with the associated plant procedures.

- January 26, response to Unit 1 feedwater heater water level transient in accordance with procedure 18016-C, Condensate and Feedwater Malfunction, and procedure 17018-1, Annunciator Response Procedures for ALB 16 on Panel 1B1
- January 31, Unit 2 power reduction to 30 percent to repair main generator hydrogen leak in accordance with procedure 12004-C, Power Operation
- February 2, Unit 2 power ascension to 100 percent in accordance with procedure 12004-C, Power Operation
- February 28, response to Unit 1 failure of 120 Volt AC Inverter 1BD1I12 transient in accordance with procedure 18007-C, Chemical and Volume Control System Malfunction, procedure 18032-C, Loss of 120 Volt AC Instrument Power, procedure 13006-1, Chemical and Volume Control System, procedure 13431-1, 120 Volt AC 1E Vital Instrumentation Distribution System, and procedure 18001-C, Primary Systems Instrumentation Malfunction
- March 26, Unit 1 power reduction to 30 percent to replace inverter to main generator voltage regulation and excitation controls in accordance with procedure 12004-C, Power Operation
- March 27, response to manual reactor trip as a result of a main feedwater pump speed control problem in accordance with 19000-C, EO Reactor Trip or Safety Injection, and procedure 19001-C, ES - 0.1 Reactor Trip Response

b. Findings

No findings of significance were identified.

1R17 Permanent Plant Modifications

a. Inspection Scope

The inspectors reviewed Minor Design Change (MDC) No. 04-VAM001-01, Allow Elimination of Cotter Pin from AFW Discharge Flow Control Valves, to verify it met the requirements of procedure 50016-C, Minor Design Change. The inspectors verified that the modification did not degrade the system design bases, licensing bases, or equipment performance capability. Additionally, the inspectors verified that plant risk was not increased unnecessarily during implementation of the modification.

b. Findings

No findings of significance were identified.

1R19 Post-Maintenance Testing

a. Inspection Scope

The inspectors either observed post-maintenance testing or reviewed the test results for the following seven maintenance activities to verify that the testing met the requirements of procedure 29401-C, Work Order Functional Tests, for ensuring equipment operability and functional capability was restored. Additionally, the inspectors reviewed the test procedures to verify the acceptance criteria was sufficient to meet the TS operability requirements.

- Unit 1 NSCW pump 2 system outage (MWOs 10301318, 10301443 and 10301790)
- 2B EDG system outage (MWOs 20300629, 20201575, 20300533 and 20301310)
- 2A EDG system outage (MWOs 20301283, 20300628, and 20300125)
- Unit 1 TDAFW discharge control valve inspections (MWOs 10303406 and 10303407)
- 2B SI pump breaker preventative maintenance (MWO 20201929)
- 2B RHR system outage (MWOs 20300166, 20301346, 20303018, and 203001630)
- 2A RHR system outage (MWOs 20202986, 20301392 and 20300161)

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing

a. Inspection Scope

The inspectors reviewed the following seven surveillance test procedures and either observed the testing or reviewed test results to verify that testing was conducted in accordance with the procedures and that the acceptance criteria adequately demonstrated that the equipment was operable. This review included three inservice tests (IST) (i.e., surveillance procedures 14806-2, 14804-2, and 14807-1). Additionally,

the inspectors reviewed the CR database to verify that the licensee had adequately identified and implemented appropriate corrective actions for surveillance test problems.

- 14420-2, Solid State Protection and Reactor Trip Breaker Train A Operability Test
- ABW-2080, Diesel Generator Normal Operating Procedure - Black-Start Diesel Generator Test Run (Plant Wilson)
- 14806-2, Containment Spray Pump Inservice and Response Time Test (Train A)
- 14804-2, Safety Injection Pump Inservice and Response Time Tests (Train A)
- 14668A-2, Train A Diesel Generator 24 Month Operability Run
- 14807-1, Motor Driven Auxiliary Feedwater Pump and Check Valve Inservice and Response Time Test (Train B, IST only)
- 14546-1, Turbine Driven Auxiliary Feedwater Pump Operability Test

b. Findings

No findings of significance were identified.

1REP Equipment Availability, Reliability, and Functional Capability (Pilot Procedure)

a. Inspection Scope

Maintenance Effectiveness. The inspectors reviewed the following three equipment problems and associated CRs to evaluate the effectiveness of the licensee's handling of equipment performance problems and to verify the licensee's maintenance efforts met the requirements of 10 CFR 50.65 (the Maintenance Rule) and procedure 50028-C, Engineering Maintenance Rule Implementation. The reviews included adequacy of the licensee's failure characterization, establishment of performance criteria or 50.65 (a)(1) performance goals, and adequacy of corrective actions. Other documents reviewed during this inspection included control room logs, system health reports, the maintenance rule database, and MWOs. Additionally, the inspectors interviewed system engineers and the maintenance rule coordinator, to assess the accuracy of identified performance deficiencies and extent of condition.

- Atmospheric Relief Valve 1PV3020 failed open (CR 2003003190)
- Unit 1 NSCW pump 6 trip during pump demand start (CR 2003002941)
- Power supply failure for Steam Generator 4 wide range level indicator (CR 2004000177)

Maintenance Effectiveness - Biennial Evaluation. The inspectors reviewed the licensee's last Maintenance Rule periodic assessment documented in "Vogtle Maintenance Rule Periodic Assessment, November 2003," dated November 24, 2003. The inspectors verified the assessment met the requirements of 10 CFR 50.65(a)(3) and licensee procedure 50028-C. The inspectors selected the following five scoped safety significant systems or important equipment that had experienced degraded performance to determine whether the licensee's periodic assessment had: effectively considered the proper balance between reliability and availability/unavailability; made appropriate adjustments to preventive maintenance schedules, a(1) goals, and a(2)

performance criteria; and, effectively utilized industry experience. During the conduct of the inspections, the inspectors interviewed the Maintenance Rule Coordinator, system engineers, and reviewed CRs, System Health reports, and the licensee's maintenance rule database.

- Containment Isolation
- Containment Penetration Electrical Protection
- Westinghouse 7.5 Kilovolt Inverters
- 4.16 Kilovolt Switchgear (Non-1E)
- 120 Volt Alternating Current

Operability Evaluations. The inspectors reviewed the licensee operability evaluations associated with the following five items to verify that they met the requirements of procedure 00150-C, Condition Reporting and Tracking System. The inspectors verified the technical adequacy of the evaluations, the adequacy of compensatory measures, and the impact on continued plant operation.

- Unexpected increase in 1B MDAFW pump outboard bearing vibration (CR 2004000131)
- Degraded fire barrier between Unit 2 Control Building and EDG tunnel (CR 2004000511)
- Possible control room pressure boundary breach during fire damper inspections (CR 2004000577)
- Over-voltage/current of 1B EDG Sequencer incoming supply power (CR 2004000682)
- 1B Containment Spray pump low NSCW motor cooler flow (CR 2004000810)

Operator Work-Arounds. The inspectors periodically reviewed the Unit 1 and Unit 2 control room logs, caution tag logs, abnormal configuration logs, MWOs, and the clearance and tagging database, to identify any abnormal plant equipment configurations. For any abnormal configurations identified, the inspectors evaluated if the configuration would be considered operator work-arounds and could increase the likelihood of an initiating event or could affect multiple mitigating systems. The inspectors also reviewed procedure 10025-C, Work Around Program, to verify the licensee was identifying operator work-arounds. During the report period, the inspectors did not identify any significant work-arounds. The inspectors also assessed the cumulative effects of any potential operator work-arounds on the operators' ability to effect a correct and timely response to plant transients and events.

Temporary Plant Modifications. The inspectors evaluated Temporary Modification (TM) 2001-V1T031, Unit 1 TDAFW Temporary Steam Condensate Drain, and associated 10 CFR 50.59 screening against the system design basis documentation and UFSAR to verify that the modification did not adversely affect the safety function of important safety systems. Additionally, the inspectors verified that the modification was developed and implemented in accordance with procedure 00307-C, Temporary Modifications.

b. Findings

No findings of significance were identified.

Cornerstone: Emergency Preparedness

1EP6 Drill Evaluation

a. Inspection Scope

The inspectors observed and reviewed two emergency response activities to verify the licensee was properly classifying emergency events, making the required notifications, and making appropriate protective action recommendations. The inspectors verified that classifications, notifications, and protective action recommendations were performed in accordance with procedures 91001-C, Emergency Classification and Implementing Instructions, 91002-C, Emergency Notifications, and 91305-C, Protective Action Guidelines. Additionally, the inspectors verified that adequate licensee critiques were conducted in order to identify performance weaknesses and improvements.

- On February 18, the licensee conducted an emergency response facility activation drill involving a partial loss of onsite and offsite electrical power followed by a loss of coolant accident with fuel failure and a monitored reactivity release pathway to the environment through a failed fuel handling building penetration
- On March 9, licensed operator Requalification Segment #20042 was conducted under Simulator Exercise Guide RQ-SE-04107, involving a steam generator tube rupture with the loss of normal pressurizer spray

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES

4OA1 Performance Indicator (PI) Verification

a. Inspection Scope

The inspectors sampled licensee submittals for the PIs listed below during the period from January 1, 2003, through December 31, 2003, for Unit 1 and Unit 2. The inspectors verified the licensee's basis in reporting each data element using the PI definitions and guidance contained in: procedures 00163-C, NRC Performance Indicator Preparation and Submittal, and 50025-C, Reporting of Mitigating System Performance Indicator Unavailability; and Nuclear Energy Institute (NEI) 99-02, Regulatory Assessment Indicator Guideline, Rev. 2.

Initiating Events Cornerstone
- Unplanned Scrams per 7,000 Critical Hours
- Scrams with Loss of Normal Heat Removal
- Unplanned Power Changes per 7,000 Critical Hours

The inspectors reviewed Licensee Event Reports (LERs), Unit 1 and Unit 2 operator log entries, the monthly operating reports, monthly PI summary reports, maintenance rule database, and NRC inspection reports to verify the licensee had accurately submitted the PI data.

b. Findings

No findings of significance were identified.

4OA2 Identification and Resolution of Problems

a. Inspection Scope

Daily Screening of Corrective Action Items. As required by NRC Inspection Procedure 71152, "Identification and Resolution of Problems," and in order to help identify repetitive equipment failures or specific human performance issues for follow-up, the inspectors performed a daily screening of items entered into the licensee's corrective action program. This review was accomplished by either attending daily screening meetings that briefly discussed major CRs, or accessing the licensee's computerized corrective action database and reviewing each CR that was initiated.

Annual Sample Review. The inspectors reviewed CR 2003003176 documenting the incorrect recording of Unit 1 TDAFW speed control system standby parameters on two occasions. The inspectors assessed whether the issue was identified in a timely manner; documented accurately and completely; properly classified and prioritized; adequately considered extent of condition, generic implications, common cause, and previous occurrences; adequately identified root causes/apparent causes; and, identified appropriate corrective actions. Also, the inspectors verified the issue was processed in accordance with procedures 00150-C, Condition Reporting and Tracking System, and Nuclear Management Guideline (NMP)-GM-002-GL02, Corrective Action Program Details and Expectations Guideline.

b. Findings and Observations

No findings of significance were identified; however, the inspectors identified that the initial investigation of the CR was not thorough. Specifically, the CR disposition disagreed with the stated deficiency that the two speed control parameters were reversed when recorded, therefore no corrective actions to address the human performance error were identified. The inspectors determined that operations personnel providing/approving the disposition did not discuss the issue in detail with the system engineer who initiated the CR, before concluding there was no recording error. When the inspectors questioned the licensee about the adequacy of their CR investigation, the

CR was re-opened. After the system engineer was consulted, the licensee concluded that the speed control parameters were reversed when recorded as was originally determined. To address the human performance deficiency, the licensee provided additional operator training emphasizing the need for accurate recording of parameters during operator rounds. However, during a subsequent review of the CR, the inspectors identified that this corrective action was not documented in the CR. As a result of the operator rounds recording errors, the inoperability of the TDAFW pump went undetected for an additional 30 hours. The regulatory significance of this human performance deficiency is documented in Section 4OA7.

4OA3 Event Follow-up

1. (Closed) LER 50-425/02-001-00: Unstaked Capscrews Renders Residual Heat Removal Pump Inoperable, and LER 50-424, 425/02-001-01: Inadequately Staked Capscrews Render Residual Heat Removal Pumps Inoperable

a. Inspection Scope

The inspectors reviewed the LERs and associated root cause investigations to verify that the cause was identified, that corrective actions were reasonable, and to determine whether a licensee performance deficiency was associated with the event. The LERs documented the October 22, 2002, 2A RHR pump failure to start while defueled due to a pump back casing ring capscrew that had come loose and lodged in the clearance between the pump impeller and back casing ring. It was determined that the capscrew had come loose and lodged in the impeller clearance when the pump was last shutdown at 10:17 a.m. on October 11, 2002, with the unit in Mode 6. TS 3.9.6 requires two RHR pumps to be operable when the unit is in Mode 6 with reactor refueling cavity water level less than 23 feet above the reactor vessel flange. Therefore, from the period of time when the 2A RHR pump was last stopped until the reactor refueling cavity water level was raised to 23 feet above the vessel flange at 4:48 p.m. on October 11, 2002 (approximately 6.5 hours), Unit 2 operated in a condition prohibited by TS.

b. Findings

Introduction. A violation of TS 3.9.6 was identified because two RHR trains were not maintained operable in Mode 6 with refueling cavity water level less than 23 feet above the reactor vessel flange. This issue was determined not to be a finding because a licensee performance deficiency was not identified. Enforcement discretion was exercised for this violation.

Description. The licensee determined that the cause of the 2A RHR pump failure was due to the pump manufacturer's failure to properly stake the back casing ring capscrews which allowed the capscrew to unscrew and become lodged in the impeller clearance area. The licensee subsequently inspected the 2B RHR pump internals and found similarly unstaked back casing ring capscrews, however, none of the capscrews were found loose. The capscrews on the back casing rings for both pumps were properly staked prior to the pumps being returned to service and the unit re-entering Mode 6 to

refuel the reactor core. Since the licensee found similar staking problems with a vendor supplied spare pump assembly, the condition was reported in the LER to be also reportable per 10 CFR 21.21. As documented in Revision 1 to the original LER, during the subsequent Unit 1 refueling outage in October 2003, the licensee inspected both RHR pumps to ensure the capscrews were properly staked. The licensee discovered similar inadequate staking in the 1B RHR pump. The pump was properly staked and returned to service.

Analysis. The inspectors determined that a violation of TS 3.9.6 occurred because two RHR pumps were not maintained operable in Mode 6 with reactor cavity water level less than 23 feet above the reactor vessel flange. The inspectors determined that this violation was greater than minor because the 2A RHR pump failure was associated with the mitigating systems cornerstone and affected the objective for ensuring the availability and reliability of mitigating equipment that respond to initiating events to prevent undesirable consequences.

The inspectors determined that the pump failure was not a performance deficiency because the cause of the inadequately staked back casing ring capscrews was not reasonably within the licensee's ability to foresee and correct prior to the pump failure. Because a performance deficiency was not associated with this issue, it was not subject to evaluation under the Significance Determination Process (SDP). However, to understand the significance of the TS violation, a risk assessment was performed by a Region II Senior Reactor Analyst. This assessment concluded that the violation had very low safety significance primarily because adequate equipment and water inventory were available while the 2A RHR pump was unavailable to allow mitigation of shutdown events. This issue was entered into the licensee's corrective action program as CRs 2002002995 and 2003002859.

Enforcement. The NRC concluded that a violation of TS occurred; however, the violation was not attributable to an equipment failure that was avoidable by reasonable licensee quality assurance measures or management controls. Because the applicable criteria specified in the NRC's Enforcement Policy was satisfied, the NRC is exercising enforcement discretion in accordance with Section VII.B.6 of the Enforcement Policy and is refraining from issuing enforcement action for this violation.

2. (Closed) LER 50-424/03-002-00: Ruptured Steam Hose Coupling Leads to Manual Steam Line Isolation

On October 22, 2003, the licensee initiated a manual steam line isolation to stop a steam leak from a temporarily installed steam hose. The licensee was in the process of equalizing pressure across and opening the main steam isolation valves (MSIVs). The temporary hose was installed to vent the bonnet cavity of one of the shut B train MSIVs to allow it to open. The steam hose coupling ruptured during the venting process. Steam pressure was controlled prior to and during this event utilizing the steam generator atmospheric relief valves. No new findings of significance were identified by the inspectors. This issue is documented in the licensee's corrective action program as CR 2003003153.

3. (Closed) LER 50-425/03-002-00: Technical Specification Required Shutdown Not Performed Following Issuance of Notice of Enforcement Discretion (NOED)

On October 26, 2003, the licensee was unable to complete a TS Surveillance on the Unit 2 Solid State Protection System (SSPS) due to a malfunction of a switch associated with the test circuitry. The licensee requested and was granted a NOED allowing a 28-day extension of the surveillance interval in order to process an exigent TS amendment allowing the testing to be completed after switch replacement during the next refueling outage or a shutdown to Mode 5. The TS amendment was approved December 3, 2003. The inspectors previously verified that the licensee had complied with the conditions of the NOED as documented in NRC Inspection Report 05000424/2003005 and 05000425/2003005.

The inspectors evaluated the root causes surrounding the circumstances that led to the licensee's request for enforcement discretion. The licensee had experienced intermittent problems with this switch during previous performances of the surveillance that had been resolved by rotating the switch to better make up the switch contacts. The switch was scheduled for replacement during the 2004 refueling outage. The licensee decided not to replace the switch during two short duration shutdowns in August and September 2003. The inspectors interviewed the operators involved with the previous SSPS surveillances conducted in May and July 2003 and determined that no difficulties were experienced with the test switch. The inspectors determined that the decision to wait until the 2004 refueling outage to replace the switch was reasonable since the previous two surveillance performances encountered no problems with the switch and prior experience had shown that the surveillance could be performed successfully even when problems were encountered with the test switch. The cause of this event did not constitute a violation of NRC requirements. This issue is documented in the licensee's corrective action program as CR 2003003186.

4OA5 Other

(Closed) Unresolved Item (URI) 05000425/2003005-03: Extension of Portions of Unit 2 SSPS TS Surveillance Testing (NOED 03-6-004)

This URI is addressed in Section 4OA3.3.

4OA6 Meetings, Including Exit

1. Exit Meeting Summary
On April 6, 2004, the resident inspectors presented the inspection results to Mr. W. Kitchens and other members of his staff, who acknowledged the findings. The inspectors confirmed that proprietary information was not provided or examined during the inspection.

2. Annual Assessment Meeting Summary
On April 1, 2004, the NRC's Chief of Reactor Projects Branch 2 and Senior Resident Inspector assigned to the Vogtle Electric Generating Plant (VEGP) met with Southern

Nuclear Operating Company to discuss the NRC's Reactor Oversight Process (ROP) and the NRC's annual assessment of VEGP safety performance for the period of January 1, 2003 - December 31, 2003. The major topics addressed were: the NRC's assessment program and the results of the VEGP assessment. Attendees included VEGP site management, members of site staff, corporate management and staff, and a local county administrator. This meeting was open to the public. Information used for the discussions of the ROP is available from the NRC's document system (ADAMS) as accession number ML040980025. ADAMS is accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html.

4OA7 Licensee Identified Violations

The following violation of very low safety significance was identified by the licensee and is a violation of NRC requirements which meets the criteria of Section VI.A.1 of the NRC Enforcement Policy, NUREG-1600, for being dispositioned as non-cited violations (NCVs).

- TS 5.4.1.a requires written procedures be implemented covering the activities listed in Regulatory Guide 1.33, Revision 2, Appendix A, February 1978, which includes process monitoring activities such as the performance of operator rounds to ensure proper operation of safety-related systems. Procedure 11882-1, Outside Area Rounds Sheets, Revision 56, requires recording of standby TDAFW speed control governor output voltage. Contrary to the above, the standby governor output voltage and the initial ramp generator signal conditioner output voltage were reversed when recorded which resulted in the inoperability of the TDAFW pump going undetected for approximately 30 hours. This violation was determined to be of very low safety significance because it did not result in an actual loss of safety function of a single train for greater than it's TS allowed outage time. This issue was identified in the licensee's corrective action program as CR 2003003176.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee personnel:

W. Bargeron, Plant Support Assistant General Manager
W. Burmeister, Manager Engineering Support
D. Carter, Superintendent Chemistry
J. Dixon, Superintendent Health Physics
S. Douglas, Manager Operations
K. Holmes, Manager Training and Emergency Preparedness
W. Kitchens, Nuclear Plant General Manager
I. Kochery, Health Physics & Chemistry Manager
T. Tynan, Assistant General Manager Operations

Other licensee employees contacted included office, operations, engineering, maintenance, chemistry/radiation, and corporate personnel.

NRC personnel:

B. Bonser, Chief, Region II Reactor Project Branch 2
W. Rodgers, Senior Risk Analyst, Region II

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Closed

50-425/02-001-00	LER	Unstaked Capscrews Renders Residual Heat Removal Pump Inoperable (Section 4OA3.1)
50-424, 425/02-001-01	LER	Inadequately Staked Capscrews Render Residual Heat Removal Pumps Inoperable (Section 4OA3.1)
50-424/03-002-00	LER	Ruptured Steam Hose Coupling Leads to Manual Steam Line Isolation (Section 4OA3.2)
50-425/03-002-00	LER	Technical Specification Required Shutdown Not Performed Following Issuance of NOED (Section 4OA3.3)
05000425/2003005-03	URI	Extension of Portions of Unit 2 SSPS TS Surveillance Testing (NOED 03-6-004) (Section 4OA5)

LIST OF DOCUMENTS REVIEWED

Section 1R04: Equipment Alignment

Procedures

11610-2, Auxiliary Feedwater System Alignment
11150-1, Nuclear Service Cooling Water System Alignment
13150-1, Nuclear Service Cooling Water System
11145-2, Diesel Generator Alignment
11011-2, Residual Heat Removal System Alignment
13011-2, Residual Heat Removal System

Section 1R05: Fire Protection

Procedures

92720-2, Zone 20- Auxiliary Building - CVCS Pump room Train A Fire Fighting Preplan
92860A-1, Zone 160A - NSCW Pumphouse - Train A Fire Fighting Preplan
92845-1, Zone 145 - Tunnels IT2A, IT3A, and IT5A Fire Fighting Preplan
92861-2, Zone 161 - Diesel Generator Building Fire Fighting Preplan
92771-2, Zone 71 - Control Building - Level B Fire Fighting Preplan
92775-2, Zone 75 - Control Building - Level B Fire Fighting Preplan
92738-1, Zone 38- Auxiliary Building - Level A Fire Fighting Preplan
92732-2, Zone 32- Auxiliary Building - Level B, SI Pump, Train A Fire Fighting Preplan
92772-2, Zone 72- Control Building - Level B, Fire Fighting Preplan
92855-1, Zone 155 - Auxiliary Feedwater Pumphouse Train B Fire Fighting Preplan
92856-1, Zone 156 - Auxiliary Feedwater Pumphouse Train A Fire Fighting Preplan
92709-2, Zone 9 - Auxiliary Building - Level D Fire Fighting Preplan