UNITED STATES



NUCLEAR REGULATORY COMMISSION

REGION II SAM NUNN ATLANTA FEDERAL CENTER 61 FORSYTH STREET, SW, SUITE 23T85 ATLANTA, GEORGIA 30303-8931

July 30, 2007

Southern Nuclear Operating Company, Inc. ATTN: Mr. T. E. Tynan Vice President - Vogtle Vogtle Electric Generating Plant 7821 River Road Waynesboro, GA 30830

SUBJECT: VOGTLE ELECTRIC GENERATING PLANT- NRC INTEGRATED INSPECTION REPORT 05000424/2007003 AND 05000425/2007003

Dear Mr. Tynan:

On June 30, 2007, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Vogtle Electric Generating Plant, Units 1 and 2. The enclosed integrated inspection report documents the inspection findings, which were discussed on July 12, 2007, with you 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 this inspection, one NRC-identified finding of very low safety significance (Green) was identified which was determined to be a violation of NRC regulatory requirements. However, because of the very low safety significance and the finding has been entered into your corrective action program, the NRC is treating this violation as a non-cited (NCV) violation consistent with Section VI.A of the NRC Enforcement Policy. 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 Vogtle.

In accordance with the Code of Federal Regulations 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosures, and your response (if any) will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of the NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <u>http://www.nrc.gov/reading-rm/adams.html</u> (the Public Electronic Reading Room).

Sincerely,

/**RA**/

Scott M. Shaeffer, Chief Reactor Projects Branch 2 Division of Reactor Projects

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

Enclosure: Inspection Report 05000424/2007003 and 05000425/2007003 w/Attachment: Supplemental Information

cc w/encl: (See page 3)

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Distribution w/encl: (See page 4)

Letter to T. E. Tynan from Scott M. Shaeffer dated July 30, 2007

SUBJECT: VOGTLE ELECTRIC GENERATING PLANT- NRC INTEGRATED INSPECTION REPORT 05000424/2007003 AND 05000425/2007003

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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.:	05000424/2007003 and 05000425/2007003
Licensee:	Southern Nuclear Operating Company, Inc.
Facility:	Vogtle Electric Generating Plant, Units 1 and 2
Location:	Waynesboro, GA 30830
Dates:	April 1, 2007 through June 30, 2007
Inspectors:	G. McCoy, Senior Resident InspectorB. Anderson, Resident InspectorC. Peabody, Reactor Inspector (Section 4OA5)
Approved by:	Scott M. Shaeffer, Chief Reactor Projects Branch 2 Division of Reactor Projects

SUMMARY OF FINDINGS

IR 05000424/2007-003, 05000425/2007-003; 04/01/2007 - 06/30/2007; Vogtle Electric Generating Plant, Units 1 and 2; Other Activities.

The report covered a three-month period of inspection by two resident inspectors and one reactor inspector. One Green finding 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 management review. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described NUREG-1649, "Reactor Oversight Process."

A. NRC-Identified and Self-Revealing Findings

Cornerstone: Mitigating Systems

 <u>Green</u>. The inspectors identified a non-cited violation (NCV) of 10 CFR 50, Appendix B, Criterion VII, Control of Purchased Materials, Equipment, and Services, for failure to identify deviations from the procurement specifications regarding the maximum allowable clearances of the replacement Unit 2 containment emergency recirculation sump strainers.

The finding is more than minor because it affects the Design Control and Equipment Performance attributes of the Mitigating Systems cornerstone objective in that larger perforations could have prevented long-term core decay heat removal. The finding was determined to be of very low safety significance (Green) because the affected components were not placed in service prior to repair. The finding has a cross-cutting aspect in the area of Human Performance involving supervisory and management oversight of work activities, particularly receipt inspection of containment sump screen hardware. This violation has been entered into the licensee corrective action program as CR 2007103895.

B. Licensee-Identified Violations

None.

REPORT DETAILS

Summary of Plant Status

Unit 1 operated at 100% rated thermal power (RTP) for the entire inspection period.

Unit 2 started the inspection period in a planned refueling outage. The unit was restarted on April 21, 2007. On April 23, the unit tripped at 54% RTP due to a main generator trip. Following repairs, Unit 2 was restarted and reached 100% RTP on May 8. The unit remained at essentially 100% RTP for the remainder of the inspection period.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity

1R04 Equipment Alignment

a. Inspection Scope

<u>Partial Walkdowns</u>. The inspectors performed partial walkdowns of the following four systems to verify correct system alignment. 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 database to verify that equipment alignment problems were being identified and appropriately resolved.

- Unit 2 train A component cooling water (CCW) during train B CCW maintenance
- Plant Wilson Combustion Turbines while work was being performed on a Unit 2 reserve station service transformer.
- Unit 2 train A and B nuclear service cooling water (NSCW) system while NSCW pump number 5 was out of service for maintenance.
- Unit 2 train A CCW following CCW pump number 1 maintenance.

b. <u>Findings</u>

No findings of significance were identified.

1R05 <u>Fire Protection</u>

a. Inspection Scope

The inspectors walked down the following nine 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 the

corrective actions for degraded equipment were identified and appropriately prioritized. The inspectors also 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.

- Unit 1 train A diesel generator (DG) building and associated fuel oil day tank room
- North firewater pumphouse
- Unit 2 trains A and B CCW heat exchanger rooms
- Unit 1 train B cable spreading room
- Unit 1 trains A and B safety injection (SI) pump rooms
- Unit 1 auxiliary feedwater pumphouse
- Unit 2 remote shutdown rooms
- Unit 2 train B DG building and associated fuel oil day tank room
- Unit 1 DG fuel oil storage tanks and pumphouse
- b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification

a. Inspection Scope

The inspectors evaluated the following areas of operator performance during licensed operator simulator training described on simulator exercise guide V-RQ-SE-07205. The simulator scenario covered operator actions resulting from the loss of one class 1-E electrical bus and a reactor trip. Documents reviewed are listed in the Attachment.

- Correct use of the abnormal and emergency operating procedures
- Ability to identify and implement appropriate actions in accordance with the requirements of the Technical Specifications
- 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.

1R12 Maintenance Effectiveness

a. Inspection Scope

The inspectors reviewed one equipment problem and one system oriented sample 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 licensee 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 maintenance work orders (MWOs). Also, the inspectors interviewed system engineers and the maintenance rule coordinator to assess the accuracy of identified performance deficiencies and extent of condition.

- CR 2007104679, Unit 2 turbine-driven auxiliary feedwater (TDAFW) trip-throttle valve inoperability
- Unit 1 NSCW system
- b. Findings

No findings of significance were identified.

1R13 Maintenance Risk Assessments and Emergent Work Evaluation

a. Inspection Scope

The inspectors reviewed the following five risk significant and emergent 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). The inspectors also 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.

- Unit 1 train B CCW maintenance outage
- Unit 1 train A motor-driven auxiliary feedwater (MDAFW) pump maintenance
- Unit 2 train B control room emergency filtration system maintenance
- Unit 1 AB15 electrical switchgear maintenance
- Unit 2 train B number 5 NSCW pump outage

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations

a. Inspection Scope

The inspectors reviewed the following five evaluations to verify they met the requirements of procedure NMP-GM-002, Corrective Action Program, and NMP-GM-002-001, Corrective Action Program Instructions. The scope of this inspection included a review of the technical adequacy of the evaluations, the adequacy of compensatory measures, and the impact on continued plant operation.

- CR 2007104428, Failed oil analysis for 2B MDAFW pump
- CR 2007105229, 1B DG jacket cooling water leak
- CR 2007106432, Problems maintaining Tave and Tref due to slowly decreasing Tref
- CR 2007105848, Possibility of gas entrapment in Residual Heat Removal (RHR) system
- CR 2007107133, Technical Support Center outside air damper failure to fully close

b. Findings

No findings of significance were identified.

1R17 Permanent Plant Modifications

a. Inspection Scope

The inspectors reviewed Design Change Package (DCP) No. 2051646601, Containment Emergency Sump Screens Replacement, Rev. 1, to verify it met the requirements of procedure 58007-C, Design Change Packages, and the modification did not degrade the system design bases, licensing bases, or equipment performance capability. The inspectors conducted a visual walkdown to verify the installed screens were consistent with specifications and drawings provided in the DCP. Additionally, the inspectors reviewed the plant risk assessment to verify that plant risk was not increased unnecessarily during modification implementation.

b. <u>Findings</u>

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 six 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. The inspectors also reviewed the test

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procedures to verify the acceptance criteria was sufficient to meet the TS operability requirements.

- MWO 20622835, Unit 2 train B CCW pump #4 discharge valve maintenance
- MWO 20707485, Unit 2 auxiliary feedwater (AFW) discharge to steam generator (SG) #4 throttle handswitch replacement
- MWO 20701546, Unit 2 TDAFW pump trip and throttle valve maintenance
- MWO 20708337, Unit 2 Loop 1 MFRV controller card replacement
- MWO 20615247, Unit 2 TDAFW pump room outside air intake actuator maintenance
- MWO 10707935, Power supply failure on U1 TDAFW governor

b. <u>Findings</u>

No findings of significance were identified.

1R20 Refueling and Outage Activities

<u>Refueling Outage</u>. The inspectors performed the inspection activities described below for the Unit 2 refueling outage that began on March 4, 2007. The inspectors confirmed that, when the licensee removed equipment from service, the licensee maintained defense-in-depth commensurate with the outage risk control plan for key safety functions and applicable technical specifications and that configuration changes due to emergent work and unexpected conditions were controlled in accordance with the outage risk control plan. Documents reviewed are listed in the Attachment.

- Reviewed reactor coolant system (RCS) pressure, level, and temperature instruments to verify that the instruments provided accurate indication and that allowances were made for instrumentation errors.
- Reviewed the status and configuration of electrical systems to verify that those systems met TS requirements and the licensee's outage risk control plan.
- Observed decay heat removal parameters to verify that the system was properly functioning and providing cooling to the core.
- Reviewed system alignments to verify that the flow paths, configurations, and alternative means for inventory addition were consistent with the outage risk plan.
- Reviewed selected control room operations to verify that the licensee was controlling reactivity in accordance with the technical specifications.
- Reviewed the outage risk plan to verify that activities, systems, and/or components which could cause unexpected reactivity changes were identified in the outage risk plan and were controlled.
- Observed licensee control of containment penetrations to verify that the requirements of the technical specifications were met.
- Reviewed the licensee's plans for changing plant configurations to verify that technical specifications, license conditions, and other requirements, commitments, and administrative procedure prerequisites were met prior to changing plant configurations.

- Reviewed RCS boundary leakage and the setting of containment integrity.
- Examined the containment prior to reactor startup to verify that debris had not been left which could affect performance of the containment sumps.

The inspectors performed a review of Operating Experience Smart Sample (OpESS FY2007-03, Crane and Heavy Lift Inspection, supplemental guidance for inspection procedure 71111.20. The inspectors reviewed the information available for heavy lifts performed during the Unit 2 Spring 2007 refueling outage. Documents reviewed are listed in the Attachment.

b. <u>Findings</u>

No findings of significance were identified.

- 1R22 Surveillance Testing
 - a. Inspection Scope

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

Surveillance Tests

- 14667-2, Train B Diesel and ESFAS Test
- 14721-2, ECCS Subsystem Flow Balance and Checkvalve Refueling Inservice Test
- 14980A-1, Diesel Generator 1A Operability Test

In-Service Tests (IST)

- 14808-2, Centrifugal Charging Pump and Check Valve IST and Response Time Test
- 14805-1, Residual Heat Removal Pump and Check Valve IST and Response Time Tests
- b. Findings

No findings of significance were identified.

1R23 <u>Temporary Plant Modifications</u>

a. Inspection Scope

The inspectors evaluated the following Temporary Modification (TM) 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 functions of important safety systems. Additionally, the inspectors reviewed licensee procedure 00307-C,

Temporary Modifications, to verify if the modification was properly developed and implemented.

- TM 20620554, Modify containment penetrations for steam generator chemical cleaning hoses
- 1EP6 Drill Evaluation
 - a. Inspection Scope

The inspectors reviewed the facility activation exercise guide and observed the following emergency response activity to verify the licensee was properly classifying emergency events, making the required notifications, and making appropriate protective action recommendations in accordance with procedures 91001-C, Emergency Classifications, and 91305-C, Protective Action Guidelines.

- On April 30, the inspectors observed a simulator-based exercise involving a loss of secondary heat sink and the initiation of reactor coolant system feed and bleed.
- 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 listed PIs during the period from April 1, 2006, through March 31, 2007, 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 and Monthly Operating Report Preparation and Submittal, and Nuclear Energy Institute (NEI) 99-02, Regulatory Assessment Indicator Guideline.

Barrier Integrity Cornerstone

- Reactor Coolant System Specific Activity
- Reactor Coolant System Leakage

The inspectors reviewed Unit 1 and Unit 2 chemistry and operator log entries, the monthly operating reports and monthly PI summary reports to verify that the licensee had accurately submitted the PI data.

b. Findings

No findings of significance were identified.

4OA2 Identification and Resolution of Problems

- .1 <u>Daily Condition Report Review</u>. As required by 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.
- .2 <u>Focused Reviews</u>. The inspectors performed a detailed review of the following CR to verify the full extent of the issue was identified, an appropriate evaluation was performed, and appropriate corrective actions were specified and prioritized. The inspectors evaluated the CR against the licensee's corrective action program as delineated in licensee procedure NMP-GM-002, Corrective Action Program, and 10 CFR 50, Appendix B. Documents reviewed are listed in the Attachment.
 - CR 2007101045, 1A EDG was stopped due to a significant fuel oil leak.
 - A cumulative review of operator workarounds
 - b. Findings and Observations

No findings of significance were identified. The CR correctly described the condition and the corrective actions were appropriate for the causes identified. No increase in operator burden was identified due to cumulative operator workarounds.

.3 Semi-Annual Trend Review. In accordance with IP 71152, Identification and Resolution of Problems, the inspectors performed a review of the licensee's corrective action program to identify trends that could indicate the existence of a more significant safety issue. The inspectors also focused on the results of daily inspector CR evaluation discussed above. The review also included issues documented outside the normal corrective action program in quality assurance audit /surveillance reports, system health reports, corrective maintenance WOs, self assessment reports, and maintenance rule program reports. The inspectors' review nominally considered the six-month period of January through June 2007, although some examples expanded beyond those dates when appropriate. Corrective actions associated with a sample of the issues identified in the licensee's self assessment report were reviewed for adequacy. The inspectors also evaluated the trend reports against the requirements of the licensee's corrective action program as specified in licensee procedure NMP-GM-002 "Corrective Action Program" and 10 CFR 50, Appendix B.

b. Assessment and Observations

The inspectors compared the licensee trending analysis with the results of the inspectors' daily CR screening and did not identify any discrepancies or potential trends that the licensee had failed to identify.

4OA3 Event Followup

.1 Unit 2 Main Generator and Reactor Trip

a. Inspection Scope

The inspectors reviewed the circumstances of the Unit 2 automatic reactor trip on April 23. The inspectors discussed the trip with operations, engineering, and licensee management personnel to understand the event and assess followup actions. The inspectors reviewed operator actions taken in accordance with licensee procedures and reviewed unit and system indications to verify that actions and system responses were as expected. The inspectors discussed the trip with the licensee's event investigation team and assessed the team's actions to gather, review, and assess information leading up to and following the event. The inspectors also reviewed the initial licensee notification to verify that it met the requirements specified in NUREG-1022, Event Reporting Guidelines. The inspectors later reviewed the initial investigation report and root cause determination to assess the detail of review and adequacy of the root cause and proposed corrective actions prior to unit restart.

b. Findings

No findings of significance were identified.

40A5 Other Activities

- .1 (Discussed) Temporary Instruction (TI) 2515/166, Pressurized Water Reactor Containment Sump Blockage (NRC Generic Letter 2004-02) – Unit 2
 - a. Inspection Scope

The inspectors reviewed Unit 2 implementation of the licensee's commitments documented in their September 1, 2005, response to Generic Letter (GL) 2004-02, Potential Impact of Debris Blockage on Emergency Recirculation During Design Basis Accidents at Pressurized Water Reactors. These commitments included permanent modification of the sump strainer assembly, modifications of high-head safety injection (HHSI) and intermediate-head safety injection (IHSI) branch lines and throttle valves, and replacement of particulate insulation in containment. The inspectors reviewed the Design Change Packages (DCPs) for the sump strainer assembly and the HHSI branch line and the 10 CFR 50.59 evaluations for these DCPs. The inspectors conducted a visual walkdown to verify the installed strainer assembly configuration was consistent with drawings and specifications provided in the DCPs and associated drawings. The

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inspectors also conducted visual walkdowns of accessible insulation replacements and the HHSI branch line modifications. The inspectors also reviewed ECCS flow balance test results following the HHSI modifications as well as reviewed associated QA documentation from the licensee, vendor, and subcontractor. Documents reviewed are listed in the Attachment.

The inspectors determined the following answers to the Reporting Requirements detailed in the TI for Unit 2:

- The licensee implemented plant modifications and procedure changes committed to in their GL 2004-02.
- The licensee updated its licensing bases to reflect the corrective actions taken in response to GL 2004-02.

This TI will remain open on Unit 2 until the TI expiration date of December 31, 2007, or notification from the licensee that all associated ongoing analyses have been completed and no further modifications to Unit 2 are required by GL 2004-02.

b. Findings

Introduction. The inspectors identified a Green NCV of 10CFR50, Appendix B, Criterion VII, "Control of Purchased Material, Equipment, and Services" for a failure to identify manufacturing defects which lead to a non-conformance with the replacement Containment Emergency Sump Strainers' procurement specifications. During a walkdown of the Containment Emergency Sump Screens Replacement, the inspectors found numerous screen penetrations greater than the specified 3/32" diameter.

<u>Description</u>. The replacement strainers were the General Electric (GE) stacked disc design and were manufactured by Fabrico Inc. The procurement specifications require a 3/32" diameter perforation, and no gaps or openings at other locations shall exceed a 3/32" dimension. GE Nuclear drawing number 234C7889 Rev. 2 instructs the welders to "weld assembly flush side to perforated plate" and "inspect for gaps of greater than 3/32." Because of the way the perforated plate was cut, there was no flush side on the inner cylinder seam and perforated plate was welded to perforated plate, resulting in numerous perforations becoming conjoined and allowing clearances up to 3/16". On December 22, 2006, the licensee conducted a receipt inspection of Unit 2 ECCS replacement strainers and did not verify the perforation diameter was in accordance with the design specification of 3/32".

The inspectors inspected the strainers installed in the Unit 2 containment emergency sump and found there were numerous conjoined perforation in the seams where the perforated strainer plate was wrapped around and joined to form the inner cylinder of each stack. These conjoined perforations resulted in up to twice the design clearance of 3/32" which could result in clogging clearances in the HHSI and IHSI that are less than 3/16".

<u>Analysis</u>. The finding is more than minor because it affects the Design Control and Equipment Performance attributes of the Mitigating Systems cornerstone objective in that larger perforations could have prevented long-term core decay heat removal. The finding was determined to be of very low safety significance (Green) because the affected components were not placed in service prior to repair. The finding also had a cross-cutting aspect in the area of human performance involving supervisory and management oversight of work activities, specifically receipt inspection of containment screen hardware. A receipt inspection did not verify the hardware was constructed in accordance with the specified design.

<u>Enforcement</u>. 10 CFR 50 Appendix B Criterion VII requires in part that Measures shall be established to assure that purchased material, equipment, and services, whether purchased directly or through contractors and subcontractors, conform to the procurement documents. Contrary to the above, a receipt inspection of the Unit 2 ECCS Sump replacement strainers did not verify the specified perforation diameter was 3/32" when if fact manufacturing errors had caused this clearance to be exceeded in numerous instances. Because the finding is of very low safety significance and has been entered into the licensee's corrective action program as CR 2007103895, this violation is being treated as an NCV, consistent with Section VI.A.1 of the NRC Enforcement Policy: NCV 05000425/2007003-01, Failure to Identify Replacement Strainer Clearances Greater than Design Procurement Specifications.

4OA6 Meetings, Including Exit

On July 12, 2007, the resident inspectors presented the inspection results to Mr. T. Tynan and other members of his staff, who acknowledged the findings. The inspectors confirmed that proprietary information was not provided or examined during the inspection.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee personnel:

J. Betsil, Project Engineer (GE Nuclear Services)

- R. Brown, Training and Emergency Preparedness Manager
- C. Buck, Chemistry Manager
- J. Cash, Project Engineer (Southern Nuclear)
- W. Copeland, Performance Analysis Supervisor
- R. Dedrickson, Plant Manager
- K. Dyar, Security Manager
- I. Kochery, Health Physics Manager
- J. Robinson, Operations Manager
- S. Swanson, Engineering Support Manager
- T. Tidwell, Plant Modifications Supervisor
- T. Tynan, Site Vice-President
- J. Williams, Site Support Manager

NRC personnel:

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

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened and Closed		
05000425/2007003-01	NCV	Failure to Identify Replacement Strainer Clearances Greater than Design Procurement Specifications (Section 4OA5.1)
Discussed		
2515/166	ΤI	Pressurized Water Reactor Containment Sump Blockage (NRC Generic Letter 2004-02) – Unit 2 (Section 4OA5.1)

LIST OF DOCUMENTS REVIEWED

Section 1R04: Equipment Alignment

Procedures 13715A-2, Component Cooling Water System Train A 11715-2, Component Cooling Water System Alignment 13150, Nuclear Service Cooling Water System 11150, Nuclear Service Cooling Water System Alignment

<u>Drawings</u>

2X3D-BD-L01A, Component Cooling Water System 2-1203-P4-001 2X3D-BD-L01B, Component Cooling Water System 2-1203-P4-002

Section 1R05: Fire Protection

Procedures 92861-1, Zone 161 Diesel Generator Building Fire Fighting Preplan 92863-1, Zone 163 Diesel Generator Building Train A DFO Day Tank Fire Fighting Preplan 92930F-1, Zone 530 North Firewater Pumphouse Fire Fighting Preplan 92807-1, Zone 107 Control Building Levels 1 and 2 Fire Fighting Preplan 92808-1, Zone 108 Control Building Levels 1 and 2 Fire Fighting Preplan 92820-1, Zone 120 Control Building Level 2 Fire Fighting Preplan 92821-1, Zone 121 Control Building Level 2 Fire Fighting Preplan 92754-2, Zone 54 Auxiliary Building Level 2 Train A CCW HX Fire Fighting Preplan 92755-2, Zone 55 Auxiliary Building Level 2 Train B CCW HX Fire Fighting Preplan 92731-1, Zone 31 Auxiliary Building Level B Fire Fighting Preplan 92732-1, Zone 32 Auxiliary Building Level B, SI Pump, Train A Fire Fighting Preplan 92862-2, Zone 162 Diesel Generator Building Fire Fighting Preplan 92864-2. Zone 164 Diesel Generator Building Train B DFO Day Tank Fire Fighting Preplan 92865-1, Zone 165 Diesel Generator Tanks and Pumphouse Fire Fighting Preplan 92866-1, Zone 166 Diesel Generator Tanks and Pumphouse Fire Fighting Preplan

Section 1R11: Licensed Operator Requalification

Procedures

18031-C, Loss of Class 1E Electrical Systems 19000-C, E-0 Reactor Trip or Safety Injection 19001-C, ES-0.1 Reactor Trip Response 18002-C, Nuclear Instrumentation System Malfunction

Section 1R20: Refueling and Outage Activities

Procedures 93246-C, Reactor Polar Crane Service Check 93663-C, Verification of Core Loading Pattern 93300-C, Conduct of Refueling Operations 12005-C, Reactor Shutdown to Hot Standby (Mode 2 to Mode 3) 12006-C, Unit Cooldown to Cold Shutdown 12007-C, Refueling Operations (Entry into Mode 6) 12008-C, Midloop Operations 14900-C, Containment Exit Inspection

Other Documents Work Order 20602183 Condition Report 2007105862 Drawing 1X4DE601 FSAR section 9.1.5

Section 1R22: Surveillance Testing

Procedures

14808-2, Centrifugal Charging Pump and Check Valve IST and Response Time Test 14721-2, ECCS Subsystem Flow Balance and Check Valve Refueling Inservice Test 14805-1, Residual Heat Removal Pump and Check Valve IST and Response Time Tests 14980A-1, Diesel Generator 1A Operability Test

Section 40A5: Other Activities

14721-2 Rev. 21, ECCS Subsystem Flow Balance and Check Valve Refueling Inservice Test, Surveillance performed 10/7/2005.

14721-2 Rev. 25, ECCS Subsystem Flow Balance and Check Valve Refueling Inservice Test, Surveillance performed 4/11/2007.

CR 2007103895, During Vogtle Unit 2 NRC TI 2515/166 Inspection, a number of defects were found in the strainer surface.

DCP 2051646601, Containment Emergency Sump Screens Replacement, Rev. 1

DCP 2060181901, Unit 2 ECCS Sump Screen Downstream Effects, Rev. 1

DOEJ-SM-2051646601-003m, Unit 2 Containment Heat Load Impact due to removal of Min K Insulation and replacement with Compressed NUKON Insulation

Out-of-Spec Condition for PWR Suction Strainers (Vogtle 2, Farley 2), 10 CFR 21

Communication SC07-07, GE Energy, Nuclear

QA Job Traveler N00062, Fabrico Inc., 12/5/06

QA Job Traveler N00063, Fabrico Inc., 12/6/06

QA Job Traveler N00065, Fabrico Inc., 11/22/06

QA Job Traveler N00066, Fabrico Inc., 11/28/06

QA Job Traveler N00078, Fabrico Inc., 10/30/06

QA Job Traveler N00080, Fabrico Inc., 12/5/06

September 2005 Response to NRC GL 2004-02, 8/31/2005

SYNCPOWER Receipt Inspection# 06071399, 12/22/2006