



UNITED STATES
NUCLEAR REGULATORY COMMISSION

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

April 26, 2005

Southern Nuclear Operating Company, Inc.
ATTN: D. E. Grissette, Jr.
Vice President - Vogtle Project
P. O. Box 1295
Birmingham, AL 35201-1295

SUBJECT: VOGTLE ELECTRIC GENERATING PLANT - NRC INTEGRATED INSPECTION
REPORT 05000424/2005002 AND 05000425/2005002

Dear Mr. Grissette:

On March 31, 2005, the U. S. 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 13, 2005, 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.

This report documents one self-revealing finding of very low safety significance (Green) which was determined to involve a violation of NRC requirements. However, because of its very low safety significance and because it has been entered into your corrective action program, the NRC is treating this violation as a non-cited violation (NCV) consistent with Section VI.A of the NRC Enforcement Policy. If you contest this NCV, 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 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

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(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/

Malcolm T. Widmann, Chief
Reactor Projects Branch 2
Division of Reactor Projects

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

Enclosure: Inspection Report 05000424/2005002 and 05000425/2005002
w/Attachment: Supplemental Information

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OFFICE	RII/DRP	RII/DRP	RII/DRP	RII/DRS	RII/DRS	RII/DRS	RII/DRS
SIGNATURE	CRW1	GJM1 via fax	TXM1 via fax	LRM via email	PKV via email	MXM3 via email	DLM4
NAME	CRapp	GMcCoy	TMorrissey	LMiller	P. Van Doorn	M. Maymi	D. Mas-Penaranda
DATE	4/20/2005	4/26/2005	4/25/2005	4/19/2005	4/18/2005	4/19/2005	4/20/2005
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

OFFICE	RII/DRS	RII/DRS	RII/DRS	RII/DRS			
SIGNATURE	SDR2	JLK1	JJI3	RCC2			
NAME	S. Rose	J. Kreh	J. Lenahan	R. Chou			
DATE	4/20/2005	4/20/2005	4/20/2005	4/20/2005			
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

U. S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket Nos.: 50-424, 50-425

License Nos.: NPF-68, NPF-81

Report Nos.: 05000424/2005002 and 05000425/2005002

Licensee: Southern Nuclear Operating Company, Inc. (SNC)

Facility: Vogtle Electric Generating Plant

Location: 7821 River Road
Waynesboro, GA 30830

Dates: January 1 - March 31, 2005

Inspectors: G. McCoy, Senior (Sr.) Resident Inspector
T. Morrissey, Resident Inspector
P. Van Doorn, Sr. Reactor Inspector (Sections 1R02 and 1R17)
M. Maymi, Reactor Inspector (Sections 1R02 and 1R17)
D. Mas-Penaranda, Reactor Inspector (Sections 1R02 and 1R17)
S. Rose, Sr. Operations Engineer (Section 1R11)
J. Kreh, Emergency Preparedness Inspector (Sections 1EP1 and 4OA1)
L. Miller, Sr. Emergency Preparedness Inspector (Sections 1EP1, 1EP4
and 4OA1)
J. Lenahan, Sr. Reactor Inspector (Sections 1R08 and 4OA5)
R. Chou, Reactor Inspector (Section 1R08)

Approved by: Malcolm T. Widmann, Chief
Reactor Projects Branch 2
Division of Reactor Projects

SUMMARY OF FINDINGS

IR 05000424/2005-002, 05000425/2005-002; 01/01/2005 - 03/31/2005; Vogtle Electric Generating Plant, Units 1 and 2; Personnel Performance During Non-Routine Evolutions.

The report covered a three-month period of inspection by resident inspectors and regional reactor inspectors and emergency preparedness inspectors. One Green 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 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

Cornerstone: Initiating Events

C Green. A self-revealing non-cited violation (NCV) was identified for failure to properly sequence plant activities which resulted in an unanticipated Unit 1 reactor coolant system (RCS) drain path.

This finding is of greater than minor significance because it affected the configuration control attribute of the initiating events cornerstone and affected the cornerstone objective in that it created an unanticipated RCS drain path. The finding is of very low safety significance (Green) because it did not contribute to the likelihood that any mitigation equipment or functions would not be available. The residual heat removal system remained operable during the transient and a large volume of makeup water was available. This finding also involved the cross-cutting aspect of human performance, in that, the improper sequencing of activities created an unanticipated drain path.

B. Licensee-Identified Violations

None.

REPORT DETAILS

Summary of Plant Status

Unit 1 operated at rated thermal power (RTP) until January 11 when the reactor automatically tripped as a result of a turbine trip. The unit was restarted on January 12 and attained RTP on January 14. The unit was shutdown on March 13 for a planned refueling outage.

Unit 2 operated at essentially RTP during this report period.

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

1R01 Adverse Weather Protection

a. Inspection Scope

Impending Adverse Weather Condition. The inspectors reviewed procedures 11877-1/2, Cold Weather Checklist, to verify the licensee had implemented actions during one cold weather period 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' 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. Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

1R02 Evaluations of Changes, Tests or Experiments

a. Inspection Scope

The inspectors reviewed the following six evaluations to confirm that the licensee had appropriately considered the conditions under which changes to the facility, Updated Final Safety Analysis Report (UFSAR), or procedures may be made and tests conducted without prior NRC approval. The inspectors also reviewed additional information such as calculations, supporting analyses, the UFSAR, and drawings to confirm that the licensee had appropriately concluded that the changes could be accomplished without obtaining a license amendment.

- 92-VAN0203, Class 1E 4160-480V Transformer Replacements
- 00-V1N0035, Provide Maximum Limit for Temperature and Pressure input to overtemperature delta T (OTDT) Instrument Loops
- DCP-97-V2N0065, Containment Mini-Purge Fan Replacement
- LDCR-2003050, TR 13.9.5 (Fuel Handling Building Post Accident Ventilation System) Revision to Completion Times

- LDCR-2004028, TR 13.9.6 (Source Range Monitor Audible Indication) Revision to Allow Reactor Coolant System Makeup
- LDCR 2003034, UFSAR Change for Auxiliary Feedwater Flow

The inspectors also reviewed the sixteen changes listed in the Attachment for which the licensee had determined that evaluations were not required, to confirm that the licensee's conclusions to "screen out" these changes were correct and consistent with 10CFR50.59.

The inspector also reviewed Condition Reports (CRs) and a surveillance report to confirm that problems were identified at an appropriate threshold, were entered into the corrective action process, and appropriate corrective actions had been initiated. Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

1R04 Equipment Alignment

a. Inspection Scope

Partial System Walkdowns. The inspectors performed partial walkdowns of the following three 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 CR database to verify that equipment alignment problems were being identified and appropriately resolved. Documents reviewed are listed in the Attachment.

C Unit 1 train A emergency diesel generator (EDG) system during EDG train B maintenance

C Unit 1 train B motor driven auxiliary feedwater (MDAFW) and turbine driven AFW (TDAFW) systems during EDG train A maintenance

C Unit 2 train B MDAFW and TDAFW systems during train A MDAFW system maintenance

b. Findings

No findings of significance were identified.

1R05 Fire Protection

a. Inspection Scope

Fire Area Tours. 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 UFSAR Section 9.5.1, Fire Protection Program, and Appendix 9A, Fire Hazards Analysis, were met. Documents reviewed are listed in the Attachment.

C Unit 1 train A component cooling water (CCW) pump room
 C Unit 1 train A EDG and associated day tank rooms
 C Unit 2 auxiliary building, room B130, mechanical penetration room
 C Unit 2 train A and B containment spray pump rooms
 C Unit 2 train A and B CCW heat exchanger rooms
 C Unit 1 train B EDG building and associated day tank room
 C Unit 2 train A and B remote shutdown panel rooms
 C Unit 2 train A and B class 1E 4.16 KV switchgear rooms
 C Unit 2 auxiliary feedwater building

b. Findings

No findings of significance were identified.

1R07 Heat Sink Performance

a. Inspection Scope

Annual Resident Review. The inspectors observed the licensee perform inspections and eddy current testing of the Unit 2 auxiliary component cooling water (ACCW) Heat Exchanger 1. The inspectors observed the as-found condition of the heat exchanger to determine if deficiencies existed that could mask degraded heat exchanger problems. The inspectors discussed the eddy current test results, tube plugging criteria, heat exchanger monitoring schedule and historical performance with engineering personnel. Additionally, the inspectors reviewed the licensee's corrective action program for heat exchanger performance issues to ensure that discrepancies were being identified and appropriately resolved. Documents reviewed are included in the Attachment.

b. Findings

No findings of significance were identified.

1R08 Inservice Inspection Activities

a. Inspection Scope

Inservice Inspection (ISI). The inspectors observed in-process ISI work activities, reviewed ISI procedures, and reviewed selected ISI records associated with risk significant structures, systems, and components. The observations and records were compared to the requirements specified in the Technical Specifications (TS) and the ASME Boiler and Pressure Vessel Code, Section XI, 1989 Edition, No Addenda, to

verify compliance and to ensure that examination results were appropriately evaluated and dispositioned.

The inspectors observed non-destructive examination (NDE) activities. Specifically, liquid penetrant (PT) examination of CRD Housing welds for weld numbers 11201-V6-001-W184 and 11201-V6-001-W188, and ultrasonic examination (UT) of weld number 11201-V6-002-W16, pressurizer surge line nozzle weld to lower pressurizer head, and UT exam of weld number 11204-025-25, 6" pipe to branch connection on the safety injection system. In addition, the inspectors examined snubbers, spring cans and pipe supports during a walkdown of the Unit 1 containment.

Qualification and certification records for examiners, and equipment and consumables were reviewed. The following inservice inspection results were also reviewed:

- Visual Inspection (VT-1) reports for inspection of steam generator bowl drain welds per NRC Information Notice 2005-02, weld numbers 11201-B6-001-I10, 11201-B6-002-I10, 11201-B6-003-I10, and 11201-B6-004-I10
- Records for PT Exams performed on CRD Housing welds for weld numbers 11201-V6-001-W184 and 11201-V6-001-W188
- Records for Magnetic Particle Exams performed on pressurizer surge line nozzle weld to lower head, weld number 11201-V6-002-W16
- Visual Inspection (VT-3) reports for support number 11202-004-H029, rigid strut 11202-004-H035, and anchor 11204-041-H021
- Records of visual inspections performed on five Unit 1 pressurizer nozzles with dissimilar metal welds

The records were compared to the TSs, License Amendments and applicable industry established performance criteria to verify compliance.

The inspectors reviewed the Vogtle Inservice Inspection report dated January 19, 2004, which documented two recordable indications observed during the Unit 1 eleventh refueling outage. The indications were recorded on weld numbers 11205-007-17 and 11205-008-17, 8" Tee to pipe welds on the residual heat removal (RHR) system piping. The inspectors reviewed records of the UT exams performed on these welds during the current outage which demonstrated that no changes had occurred since the previous exams in September, 2003.

The inspectors also reviewed welding activities associated with Maintenance Work Order (MWO) 1980204001, Replace Pipe Section between Weld-O-let (ISO Weld 157-W-01) and First Downstream Elbow, for the replacement of a section of the auxiliary feedwater inlet piping to determine if the welding process and examinations were performed in accordance with ASME Section XI repair/replacement requirements. The inspectors reviewed drawings, work instructions, weld process sheets, weld travelers, pre-heat requirements and radiography records for welding of an ASME Class 2 pressure boundary weld.

The inspectors reviewed implementation of the licensee's Boric Acid Corrosion Control program to determine if commitments made in response to Generic Letter 88-05 and Bulletin 2002-01 were being effectively implemented. The inspectors reviewed boric

acid leakage screening reports, evaluations, and dispositions. The inspectors selected ten locations where leaks were previously identified inside the containment by the licensee's engineers and performed a walkdown to verify the leaks were properly assessed and corrective actions were implemented. The inspectors also performed independent observation during the walkdown and identified several additional inactive leak locations.

The inspectors reviewed activities, plans, pre-outage degradation assessment and procedures for the inspection and evaluation of the steam generator Inconel Alloy 600TT tubing to determine if the activities were being conducted in accordance with TS and applicable industry standards. Data gathering, analysis, and evaluation activities were reviewed, with special emphasis on evaluation of the eddy current data for circumferential indications in two tubes R11C88 and R6C101, the expanded samples of tubes inside the tube sheet area with bulges, and expansions or transitions in Steam Generator 4. CR 2005102216 was issued to evaluate and disposition the circumferential indications in the two tubes. The licensee added stabilizers and plugged tubes R11C88 and R6C101. Documents reviewed are listed in the Attachment.

The inspectors reviewed the following indication evaluation report (IER) and indication notification forms (INFs) to confirm that problems were being identified and placed in the corrective action program and appropriate corrective action were being initiated.

- IER for weld number 11201-V6-001-W184, CRD Housing Weld, rounded indication found during PT exam
- INF for frozen spherical bearings at both ends of strut, support number 11205-003-H012
- INF for identification of white residue around steam generator bowl drain weld, weld number 11201-B6-003-I10

IWE Containment Vessel Inspection. The inspectors reviewed the licensee's procedures for visual inspection of the containment to determine if the procedures complied with the TSs, ASME Boiler and Pressure Vessel Code, Articles IWE of Section XI, 1992 Edition and 1992 Addenda, and 10 CFR 50.55a. The inspectors examined the interior surfaces of the containment liner and the moisture barrier at the intersection of the liner and interior concrete floor area in Unit 1.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification

a. Inspection Scope

Resident Quarterly Review. The inspectors evaluated operator performance on January 25 during licensed operator simulator training associated with Requalification Segment 20051. The simulator scenario covered operator actions resulting from a steam

generator tube leak and a loss of all alternating current power. The inspectors specifically assessed the following areas:

- C Correct use of the abnormal and emergency operating procedures including licensee procedures 18009-C, Steam Generator Tube Leak; 19000-C, E-0 Reactor Trip or Safety Injection; and 19100, ECA-0.0 Loss of All AC Power
- C Ability to identify and implement appropriate TS actions
- C Clarity and formality of communications in accordance with procedure 10000-C, Conduct of Operations
- C Proper control board manipulations including critical operator actions
- C Quality of supervisory command and control
- C Effectiveness of post-evaluation critique

Requalification Examination Results Review. On December 31, 2004, the licensee completed the comprehensive biennial written examinations and annual operating tests required by 10 CFR 55.59(a)(2) to be given to all licensed operators. The inspectors performed an in-office review of the overall written examination pass/fail results, individual operating tests, and the crew simulator operating tests. These results were compared to the thresholds established in Manual Chapter 609 Appendix I, Operator Requalification Human Performance Significance Determination Process.

b. Findings

No findings of significance were identified.

1R12 Maintenance Effectiveness

a. Inspection Scope

The inspectors reviewed the following three equipment problems and associated licensee 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 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 MWOs. Also, the inspectors interviewed system engineers and the maintenance rule coordinator to assess the accuracy of identified performance deficiencies and extent of condition. Documents reviewed are listed in the Attachment.

- C CR 2005100033, 2HV2041, Common ACCW return isolation from reactor coolant pump thermal barriers failed closed
- C CR 2004150742, potential trend with Freedom Series motor starter overload relay failures
- C CR 2005101076, failure of 2TE15215A results in a loss of chemical and volume control (CVCS) letdown

b. Findings

No findings of significance were identified.

1R13 Maintenance Risk Assessments and Emergent Work Evaluation

a. Inspection Scope

The inspectors reviewed the following six 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.

C Unit 1, train B EDG outage (MWO's 1040425101 and 1040424503)

C Unit 1, train A EDG outage (MWO's 1040425001, and 1040522701)

C Unit 2, train A MDAFW system outage (MWO's 2040580401, 204017201 and 2040096101)

C Unit 1, train B RHR system outage (MWO's 1040050801, 1040139201, and 1040227101)

C Unit 1, train A RHR system outage (MWO's 1040447201 and 1040235701)

C Unit 2 operation with one bus in the 240KV high voltage switchyard deenergized

b. Findings

No findings of significance were identified.

1R14 Operator Performance During Non-Routine Plant Evolutions

a. Inspection Scope

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

C Unit 1 reactor trip and recovery in accordance with procedures 19000-C and 19001-C, ES-0.1 Reactor Trip Response

C Unit 1 reactor startup in accordance with licensee procedure 12003-C, Reactor Startup (Mode 3 to Mode 2)

C Unit 2 letdown isolation and subsequent recovery in accordance with abnormal operating procedure 18007-C, Chemical and Volume Control System Malfunction

C Unit 1 reactor shutdown in accordance with licensee procedures 12004-C, Power Operation (Mode 1) and 19001-C, E-0 Reactor Trip or Safety Injection

C Unit 1 Operator response to a reactor coolant system draindown due to improper valve lineup in accordance with licensee procedure 18004-C, Reactor Coolant System Leakage

b. Findings

Introduction. A Green self-revealing non-cited violation (NCV) was identified for failure to properly sequence plant activities which resulted in an unanticipated Unit 1 reactor coolant system (RCS) drain path.

Description. On March 16, the RCS was in a water solid condition with both residual heat removal trains in service. RCS inventory was being maintained by balancing charging and letdown flow through the CVCS system. System operators had been briefed on the coordination of two activities; removal of danger tags which had been used to establish an isolation boundary to allow mechanics to reverse a spectacle flange in the reactor coolant drain system and opening the RCS intermediate loop drain isolation valves. The tagout had tagged shut each RCS intermediate loop drain isolation valve and tagged open drain valves located on either side of the spectacle flange. After verifying the intermediate loop drain isolation valves were closed as specified by the tagout, the operators opened the valves as directed by step D4.4.6 of procedure 12006-C, Unit Cooldown to Cold Shutdown. However, the spectacle flange drain valves had not been closed which resulted in an RCS drain path to a containment sump. The reactor vessel remained full and pressurized because the CVCS system was able to make up for the loss of reactor coolant. The operators identified the RCS drain path and closed the intermediate loop drain isolation valves. Approximately 700 gallons of primary coolant was drained to a containment sump.

Analysis. This finding is of greater than minor significance because it affected the configuration control attribute of the initiating events cornerstone and affected the cornerstone objective in that it created an unanticipated RCS drain path. The finding is of very low safety significance (Green) because it did not contribute to the likelihood that any mitigation equipment or functions would not be available. The residual heat removal system remained operable during the transient and a large volume of makeup water was available. This finding also involved the cross-cutting aspect of human performance, in that, the improper sequencing of activities created an unanticipated drain path.

Enforcement. TS 5.4.1.a. requires that written procedures be implemented for the activities listed in Regulatory Guide 1.33, Appendix A, Section 1.b, Revision 2, which includes administrative procedures covering authorities and responsibilities for safe operation and shutdown. Licensee Procedure 10000-C, Conduct of Operations, Revision 56 requires, in part, that supervisory personnel properly sequence the performance of tasks required to be completed during the shift. Contrary to the above, on March 16, 2005, operations supervisory personnel improperly sequenced the removal of danger tags and the opening of the reactor coolant system intermediate leg isolation valves. This resulted in a loss of configuration control and subsequent draining of approximately 700 gallons of primary coolant to a containment sump. Because this finding was of very low safety significance and has been entered into the licensee's corrective action program as CR 2005101787, this violation is being treated as an NCV

in accordance with Section VI.A of the NRC Enforcement Policy:
 NCV 05000424/2005002-01, Failure to Properly Sequence Plant Activities Causes
 Unanticipated Reactor Coolant System Drain Path.

1R15 Operability Evaluations

a. Inspection Scope

The inspectors reviewed the following six evaluations to verify they met the requirements of procedures NMP-GM-002, Corrective Action Program, and NMP-002-GL02, Corrective Action Program Details and Expectations Guideline. This scope included a review of the technical adequacy of the evaluations, the adequacy of compensatory measures, and the impact on continued plant operation.

- C Trip of Unit 1 group A pressurizer backup heater breaker (CR 2005100186)
- C High vibrations on Unit 2 NSCW system pump 6 (CR 2005100379)
- C Unit 1 train B RHR pump indicated differential pressure oscillations and lower than expected flow rate (CR's 200510909 and 2005100921)
- C Unit 2 Loop 2 OTDT channel continued to trend upward after summing amplifier card replacement (CR 2005101343)
- C Blistering found in the internal coating of the Unit 1 train A DG lube oil/jacket water heat exchanger (CR 2005100529)
- C Unit 2 potential non-conservatisms in steam generator water level Hi-Hi (P-14) setpoints (CR 2005102333)

b. Findings

No findings of significance were identified.

1R16 Operator Workarounds

a. Inspection Scope

Cumulative Review. The inspectors reviewed the licensee's list of identified operator workarounds and burdens to determine whether any items would adversely affect the operators' ability to implement abnormal or emergency operating procedures. Additionally, the inspectors reviewed Unit 1 and Unit 2 control room logs, caution tag logs, MWOs, and the clearance and tagging database, to identify any abnormal plant equipment configurations that might be considered operator workarounds, and to verify the licensee was identifying and documenting operator workarounds in accordance with licensee procedure 10025-C, Work Around Program. The inspectors also assessed the cumulative effects of any potential operator workarounds on the operators' ability to effect a correct and timely response to plant transients and events.

b. Findings

No findings of significance were identified.

1R17 Permanent Plant Modifications

a. Inspection Scope

Biennial Review. The inspectors reviewed design change packages and the associated attributes for the following six modifications in the Initiating Events and Mitigating Systems cornerstones to evaluate the modifications for adverse effects on system availability, reliability, and functional capability. For selected modification packages, the inspectors observed the as-built configuration. Documents reviewed included procedures, engineering calculations, modification design and implementation packages, work orders, site drawings, corrective action documents, applicable sections of the UFSAR, supporting analyses, TSs, and design basis information.

The inspectors also reviewed selected self-assessments and CRs associated with modifications to confirm that problems were identified at an appropriate threshold, were entered into the corrective action process, and appropriate corrective actions had been initiated. Documents reviewed are listed in the Attachment.

- 92-VAN0203, Class 1E 4160-480V Transformer Replacements (Initiating Events, Mitigating Systems)
 - Electrical parameters of the components (voltage, current, impedance)
 - Field observation (nameplate data)
 - Seismic qualification
 - Environmental qualification
 - Post-Installation testing
 - Update of licensee documents (procedures)
 - Functional testing adequacy and results
 - Vendor manuals
 - Energy needs
- 03-V1M048, Installation of Interposing Relays to Reduce EMI to the 701 Governor (Mitigating Systems)
 - Electrical parameters of the components (voltage)
 - Field observation (nameplate data)
 - Functional testing adequacy and results
 - Update of licensee documents (drawings)
 - Vendor manuals
 - Energy needs
- 99-VAN0071, Replacement of 480V Motor Control Center (MCC) Culter-Hammer Citation Series Contactors, Starters, and Thermal Overload Relays (Initiating Events, Mitigating Systems)
 - Electrical parameters of the components (timing setting, thermal overload resistance)
 - Field observation (name plate data)
 - Post-Installation testing
 - Update of licensee documents (procedures)
 - Seismic qualification
 - Energy needs
 - Functional testing adequacy and results

- DCP-99-VAN0033, Direct Drop-In Replacement Lisega Hydraulic Snubbers for Current Mechanical Snubbers (Mitigating Systems)
 - Post-modification testing
 - Seismic evaluation
 - Update of licensing documents
 - Vendor manual
 - Snubber attributes (load capacity, travel, weight, stroke length, dimensions)
 - Field observation
 - Environmental qualification
- DCP-99-VAN0050, Replace Certain Limitorque Model SMC-04 Actuators with SMB-000 Actuators (Mitigating Systems)
 - Field observation
 - Actuator attributes (rating, expected voltage drop, time response)
 - Update of licensing documents
 - Environmental qualification
 - Seismic evaluation
 - Pot-modification testing
 - Vendor manual
- DCP-00-V2N0041, Relocation of Safety Injection Vent Valves (Mitigating Systems)
 - Field observation
 - Seismic evaluation
 - Update of licensing documents
 - Post-modification testing

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

C Unit 2 steam generator 1 atmospheric relief valve outage (2PV3000) (MWO's 2040223801 and 2040536901)

C Unit 1 train B EDG outage (MWO's 1040425131, 1040425101 and 1040424503)

C Unit 1 train B RHR system outage (MWO's 1040050801, 1040139201, and 1040227101)

C Unit 1 train A EDG outage (MWO's 1040425001, 1040522701, 1040216501, and 1040078501)

b. Findings

No findings of significance were identified.

1R20 Refueling and Outage Activities

a. Inspection Scope

The inspectors reviewed the licensee's outage risk control plan to verify that the licensee had appropriately considered risk, industry experience and previous site specific problems, and to confirm that the licensee had mitigation/response strategies for losses of key safety functions. During the cooldown which preceded the outage, the inspectors reviewed portions of the cooldown process to verify that technical specification cooldown restrictions were followed. 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. During the outage, the inspectors:

- C Reviewed RCS pressure, level, and temperature instruments to verify that the instruments provided accurate indication and that allowances were made for instrumentation errors
- C Reviewed the status and configuration of electrical systems to verify that those systems met TS requirements and the licensee's outage risk control plan
- C Observed decay heat removal parameters to verify that the system was properly functioning and providing cooling to the core
- C Reviewed system alignments to verify that the flow paths, configurations, and alternative means for inventory addition were consistent with the outage risk plan
- C Reviewed selected control room operations to verify that the licensee was controlling reactivity in accordance with the technical specifications
- C Observed spent fuel pool operations to verify that outage work was not impacting the ability of the operations staff to operate the spent fuel pool cooling system during and after core offload
- C 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
- C Observed licensee control of containment penetrations to verify that the requirements of the technical specifications were met
- C Reviewed the licensee's plans for changing plant configurations to verify that technical specifications, license conditions, and other requirements, commitments, and administrative procedure prerequisites had been met

b. Findings

No findings of significance were identified.

1R22 Surveillance Testinga. 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. Documents reviewed are listed in the Attachment.

Surveillance Tests

C 14421-2, Solid State Protection System and Reactor Trip Breaker Train B Operability Test

C 88007-C, Limiting Hot Channel Factor Determination (Unit 1)

C 14667-1, Train B Diesel Generator and ESFAS Test

In-Service Tests

C 14804-1, Safety Injection Pump Inservice and Response Time Tests (1A, IST only)

Containment Isolation Valve Tests

C 14341-1, Containment Penetration No. 41 Safety Injection Test Line Local Leak Rate Test

b. Findings

No findings of significance were identified.

Cornerstone: Emergency Preparedness1EP1 Exercise Evaluationa. Inspection Scope

The inspectors reviewed the emergency exercise and scenario for the biennial, full participation 2005 emergency response exercise conducted on February 23. The review covered whether the licensee created a scenario suitable to test the major elements of their emergency plan in accordance with 10 CFR 50, Appendix E. Licensee activities inspected during the exercise included independent observations in the Control Room Simulator (CRS), Emergency Operations Facility (EOF), Technical Support Center (TSC), and Operational Support Center (OSC). The inspectors' evaluation focused on the risk-significant activities of event classification, notification of governmental authorities, onsite protective actions, offsite protective action recommendations, and accident mitigation. The inspectors also evaluated command and control, the transfer of emergency responsibilities between facilities, communications, adherence to procedures, and the overall implementation of the emergency plan. The inspectors attended the post-exercise critique to evaluate the

licensee's self-assessment process, as well as the presentation of critique results to plant management. At the conclusion of these evaluations and independent observations, the inspectors determined whether the exercise was a satisfactory test of the Emergency Plan. The inspectors also reviewed a sample of previously identified corrective actions to determine if any trends in performance represented a failure to correct weaknesses or a failure to meet a planning standard or other regulatory requirement.

b. Findings

No findings of significance were identified.

1EP4 Emergency Action Level (EAL) and Emergency Response Plan (ERP) Changes

a. Inspection Scope

The inspectors reviewed a selected sample ERP changes against the requirements of 10 CFR 50.54(q) to determine whether any of the changes decreased ERP effectiveness. The changes, which were incorporated in ERP Revision 39, did not include modifications to the EALs. The inspectors reviewed documentation of the licensee's 10 CFR 50.54(q) screening evaluations for Revision 39. Revision 38 has not been incorporated in the ERP, the licensee has submitted it to headquarters for review and approval. Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES

4OA1 Performance Indicator (PI) Verification

a. Inspection Scope

The inspectors sampled licensee submittals relative to the PIs listed below for the period July through December 2004. To verify the accuracy of the PI data reported during that period, PI definitions and guidance contained in NEI 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 2, were issued to confirm the reporting basis for each data element.

Emergency Preparedness Cornerstone

- Emergency Response Organization (ERO) Drill/Exercise Performance
- ERO Drill Participation
- Alert and Notification System Reliability

For the specified review period, the inspectors examined data reported to the NRC, procedural guidance for reporting PI information, and records used by the licensee to identify potential PI occurrences. The inspectors verified the accuracy of the PI for ERO

drill and exercise performance through review of a sample of drill and event records. The inspectors reviewed selected training records to verify the accuracy of the PI for ERO drill participation for personnel assigned to key positions in the ERO. The inspectors verified the accuracy of the PI for alert and notification system reliability through review of a sample of the licensee's records of periodic system tests. The inspectors also interviewed the licensee personnel who were responsible for collecting and evaluating the PI data. Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

4OA2 Identification and Resolution of Problems

1. Daily Screening of Corrective Action Items

a. Inspection Scope

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.

b. Findings and Observations

No findings of significance were identified.

2. Annual Sample Review

a. Inspection Scope

The inspectors reviewed one issue to evaluate the effectiveness of the licensee's corrective actions for important safety issues documented in CR 2004151428. The condition report was associated with the installation of flow test equipment which temporarily rendered the RHR train inoperable. 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 procedure Nuclear Management Guideline (NMP)-GM-002-GL02, Corrective Action Program Details and Expectation Guideline.

b. Findings and Observations

No findings of significance were identified. The inspectors determined that the severity level (SL) assigned to the CR should have been upgraded to a SL 2 when it was

determined to involve a maintenance preventable functional failure. An adequate root cause evaluation was performed, however, it did not get the additional senior management review that accompanies SL 2 CRs. In addition, recommended corrective actions were not approved and assigned to the applicable department as action items prior to the approving the disposition. These issues are documented in the licensee's corrective action program as CR 2005100688.

4OA3 Event Follow-up

1. Unit 1 Automatic Reactor Trip

a. Inspection Scope

The inspectors reviewed the licensee's actions associated with the reactor trip that occurred on January 11. The inspectors observed plant parameters for mitigating systems and fission product barriers, evaluated performance of systems and operators, and confirmed proper classification and reporting of the event. Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

2. (Closed) Licensee Event Report (LER) 05000424/2005001-00: Automatic Reactor Trip due to Broken Wire Connector

The inspectors reviewed the LER, CR 2005100178, and Event Report 1-2005-01 to verify the cause of the January 11, 2005, Unit 1 reactor trip was identified and that corrective actions were reasonable. The automatic reactor trip was caused by a failed connection associated with the main generator lockout relay circuitry. The inspectors observed plant parameters for mitigating systems and fission product barriers, evaluated performance of systems and operators, and confirmed proper classification and reporting of the event. No findings of significance were identified.

4OA4 Cross-Cutting Aspects of Findings

A Green NCV involving the cross-cutting aspect of Human Performance is documented in Section 1R14. The human performance cross-cutting aspects of this finding were related to supervision failing to properly sequence plant activities.

4OA5 Other

1. Temporary Instruction (TI) 2515/160: Pressurizer Penetration Nozzles and Steam Space Piping Connections in U.S. Pressurized Water Reactors (NRC Bulletin 2004-01)

a. Inspection Scope

The inspectors reviewed procedures and records documenting activities relative to inspection of the Unit 1 pressurizer penetrations to verify that the licensee complied with

commitments made in the licensee's July 26, 2004, response to NRC Bulletin 2004-01. The inspectors reviewed the records documenting the results of visual inspections performed on the dissimilar welds and the video images of the as-found welds. The inspectors also independently performed a bare metal visual examination of the following pressurizer penetrations: the three six inch diameter safety nozzles, the six inch diameter relief nozzle, and the four inch diameter spray nozzle on the pressurizer head. The inspectors also examined the dissimilar metal weld on the surge line to the bottom of the pressurizer. The guidelines for the inspection were provided in NRC TI 2515/160.

b. Findings

There were no indications of boron leakage or penetration degradation in any pressurizer connections examined by the licensee during their inspections.

Reporting Requirements:

a. For each of the examination methods used during the outage, was the examination:

1. Performed by qualified and knowledgeable personnel? The "bare-metal" visual examinations of the pressurizer penetrations were conducted by licensee NDE inspection personnel who had been trained and qualified in accordance with applicable visual inspection procedures, and were certified in accordance with ASME Code requirements.
2. Performed in accordance with demonstrated procedures? The visual inspections were conducted in accordance with Southern Nuclear Operating Company Nondestructive Examination Procedure ES-MISN-V-715, Visual Examination, VT-1, Version 1.0. The inspectors reviewed the inspection procedure and verified that it had been reviewed and approved in accordance with the licensee's procedure review process and NRC requirements. The inspectors verified that the procedure specified inspection prerequisites, inspection requirements, included minimum lighting requirements, adequate instructions for performing the visual examination of the pressurizer penetrations, and inspection documentation requirements.
3. Able to identify, disposition, and resolve deficiencies? The inspectors reviewed the licensee's procedures controlling the visual examination and determined that the procedure provided adequate guidance to identify, disposition and resolve identified deficiencies in the pressurizer head penetrations.
4. Capable of identifying the leakage in pressurizer penetration nozzle or steam space piping components, as discussed in NRC Bulletin 2004-01? The visual examination method was capable of identifying leakage through and around areas adjacent to the pressurizer penetrations.

b. What was the physical condition of the penetration nozzle and steam space piping components in the pressurizer system? Prior to the visual inspections, insulation was removed from the pressurizer head and penetrations. The areas were free of

debris, dirt, boron from other sources. The physical layout of the area was congested, however, with the insulation removed, NDE inspection personnel were able to perform visual inspections around 360E of the circumference of each penetration. There were no viewing obstructions.

- c. How was the visual inspection conducted? Inspections were conducted by direct visual by NDE inspection personnel. In addition, the licensee recorded the as-found conditions of the penetrations using a video camera. Resolution of the images recorded by the camera were excellent.
- d. How complete was the coverage? 360E around the circumference of all the nozzles.
- e. Could small boron deposits, as described in the Bulletin 2004-01, be identified and characterized? With the lighting available, boron deposits, as described in the bulletin, could have been readily identified and characterized. No boron deposits were found.
- f. What material deficiencies were identified that required repair? No material deficiencies were identified that required repair.
- g. What, if any, impediments to effective examinations, for each of the applied methods, were identified? No significant items were encountered that impeded the bare metal examinations of the pressurizer penetrations.
- h. If volumetric or surface examination techniques were used for the augmented inspections examinations, what process did the licensee use to evaluate and dispose any indications that may have been detected as a result of the examinations? No indications were identified.
- i. Did the licensee perform appropriate follow-on examinations for indications of boric acid leaks from pressure-retaining components in the pressurizer system? No indications of leakage were identified during the current outage.

2. TI Status Update

The following TIs were previously documented in the associated integrated inspection report (IIR). This section is provided to administratively update the TI status stated in the IIR with the current status. This completes the regional inspection effort for these TIs.

<u>TI Number</u>	<u>IIR Number</u>	<u>IIR Status</u>	<u>Current Status</u>
2515/154	05000424, 05000425/2004004	Discussed	Closed
2515/156	05000424, 05000425/2004004	Discussed	Closed

4OA6 Meetings, Including Exit

1. Exit Meeting Summary

On April 13, 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 12, 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. A listing of meeting attendees and information presented during the meeting are available from the NRC's document system (ADAMS) as accession number ML051150106. ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee personnel:

R. Brown, Training and Emergency Preparedness Manager
C. Buck, Chemistry Manager
S. Douglas, Operations Manager
K. Dyar, Security Manager
W. Kitchens, Nuclear Plant General Manager
I. Kochery, Health Physics Manager
J. Robinson, Assistant General Manager - Plant Support
S. Swanson, Engineering Support Manager
T. Tynan, Assistant General Manager - Operations

NRC personnel:

M. Widmann, Chief, Region II Reactor Project Branch 2

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened and Closed

05000424/2005002-01	NCV	Failure to Properly Sequence Plant Activities Causes Unanticipated Reactor Coolant System Drain Path (Section 1R14)
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Closed

05000424/2005001-00	LER	Automatic Reactor Trip due to Broken Wire Connector (Section 4OA3)
2515/154 (Units 1 and 2)	TI	Spent Fuel Material Control and Accounting at Nuclear Power Plants (Section 4OA5.2)
2515/156 (Units 1 and 2)	TI	Offsite Power System Operational Readiness (Section 4OA5.2)

LIST OF DOCUMENTS REVIEWED

Section 1R01: Adverse Weather

Procedures

11901-1/2, Heat Tracing System Alignment
13901-1/2, Heat Tracing System

Section 1R02: Evaluation of Changes, Tests, or Experiments

Screened Out Changes

03-V1M048, Installation of Interposing Relays to Reduce EMI to the 701 Governor
99-VAN0071, Replacement of 480V Motor Control Center (MCC) Cutler-Hammer Citation Series Contactors, Starters, and Thermal Overload Relays.
DCP-99-V2N0057, Delete NSCW Motor Cooler Throttle Valves
DCP-99-VAN0033, Direct Drop-In Replacement Lisega Hydraulic Snubbers for Current Mechanical Snubbers

DCP-99-VAN0050, Replace Certain Limitorque Model SMC-04 Actuators with SMB-000 Actuators

DCP-00-V2N0041, Relocation of Safety Injection Vent Valves

DCP-00-VAN0020, Diesel Generator Building ESF Ventilation Dampers Modification

DCP-03-V1N0024, Containment Isolation Valve Replacement

ED-SC-04-0-0057, Replacement of 1075 Actuator with 1077 9KE Actuator

LDCR-2003059, FSAR Table 9.2.1-1 Minimum Required Flows to Safety Injection and Centrifugal Charging Pump and Motor Coolers Revision

MDC-00-V2M016, Add Adjustment Capabilities to Steam Flow Instrument Channels

MDC-01-VAM040, Elevator Shaft Tornado Dampers Motor Operator Removal

MDC-02-V2M025, AOV Setpoint Upgrades

LDCR 2002010, Technical Specification Basis 3.5.2 Change (hot leg switchover time)

CR 2004150661, Kellums Grips Omitted from 1A Diesel Generator Damper Actuator

LDCR 2002004, Technical Specification Bases 3.3.1 Change (Reactor Coolant flow)

Self-Assessment Documents

Surveillance C-2004-05, Surveillance of Equivalency Determinations

CRs 2001002958 and 2003002597

Section 1R04: Equipment Alignment

Procedure 13145-1, Diesel Generators

Drawings: 1X4DB161-1, 2 and 3, 2X4DB161-1, 2 and 3, 1X4DB170, 1X4AK01-29

Section 1R05: Fire Protection

Procedures

92736-1, Zone 36 - Auxiliary Building - Level A Fire Fighting Preplan

92861-1, Zone 161 - Diesel Generator Building Fire Fighting Preplan

92861-1, Zone 163 - Diesel Generator Building Train A DFO Day Tank Fire Fighting Preplan

92726B-2, Zone 26B - Auxiliary Building -Levels A&B Fire Fighting Preplan

92704-2, Zone 4 - Auxiliary Building - Level D, Containment Spray Pump "A" Fire Fighting Preplan

92705-2, Zone 5 - Auxiliary Building - Level D, Containment Spray Pump "B" 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

92862-1, Zone 162 - Diesel Generator Building Fire Fighting Preplan

92864-1, Zone 164 - Diesel Generator Building Train B DFO Day Tank Fire Fighting Preplan

92791-2, Zone 91 - Control Building - Level A Fire Fighting Preplan

92798-2, Zone 98 - Control Building - Level A Fire Fighting Preplan

92792-2, Zone 92 - Control Building - Level A Fire Fighting Preplan

92803-2, Zone 103 - Control Building - Level A Fire Fighting Preplan

92855-2, Zone 155 - Auxiliary Feedwater Pumphouse - Train B Fire Fighting Preplan

92856-2, Zone 156 - Auxiliary Feedwater Pumphouse Fire Fighting Preplan

92857A-2, Zone 157A - Auxiliary Feedwater Pumphouse - Train C Fire Fighting Preplan

Section 1R07: Heat Sink PerformanceProcedures

83305-C, Heat Exchanger Testing/Maintenance Program

ES-MISN-V-901, Eddy Current Examination Procedure for Heat Exchanger Tubing

Other Documents

Preliminary Inspection Report Results of Unit 2, ACCW Heat Exchanger #1 Eddy Current Testing

Section 1R08Procedures

ES-MISN-V-605, Color Contrast, Solvent removable Liquid Penetrant Examination Procedure, Version 1.0

ES-MISN-V-715, Visual Examination VT-1, Version 1.0

ES-MISN-V-735, Visual Examination VT-3, Version 1.0

ES-MISN-V-505, Magnetic particle Examination, Version 1.0

ES-MISN-V-404, Manual and/or Mechanized Ultrasonic Examination of Full-Penetration Welds, Version 1.0

ES-MISN-V-416, Manual Ultrasonic Examination of Nozzle Inner Radius, Version 1.0

ES-MISN-V-481, PDI Generic Procedure for the Ultrasonic Examination of Austentic Pipe Welds, (Appendix VIII), Version 2.0

NMP-ES-019, Rev. 1.0, Boric Acid Corrosion Control Program

14864-1, Containment General Leak Inspection, Rev. 1

00435-C, Boric Acid Corrosion Control Program, Rev. 3,

85053-C, Visual Examination for ASME XI, Subsection IWE and IWL and General Visual Inspection, Rev. 2

Westinghouse Acquisition Procedure MRS 2.4.2 GPC-3, Rev. 11, Eddy Current Inspection of Preservice and Inservice Heat Exchanger Tubing

Westinghouse Analysis Procedure MRS 2.4.2 GPC-37, Rev. 11, Steam Generator Eddy Current Data Analysis Techniques for Vogtle Units 1 & 2

Other Documents

Visual Inspection (VT-1) reports for inspection of steam generator bowl drain welds per NRC Information Notice 2005-02, weld numbers 11201-B6-001-I10, 11201-B6-002-I10, 11201-B6-003-I10, and 11201-B6-004-I10,

Records for Penetrant Exams performed on CRD Housing welds for weld numbers 11201-V6-001-W184 and 11201-V6-001-W188.

Records for Magnetic Particle Exams performed on pressurizer surge line nozzle weld to lower head, weld number 11201-V6-002-W16.

Ultrasonic examination reports for exams performed on weld numbers 11205-007-17 and 11205-008-17, 8" Tee to pipe welds on the RHR system piping

Visual Inspection (VT-3) reports for support number 11202-004-H029, rigid strut 11202-004-H035, and anchor 11204-041-H021.

Records of visual inspections performed on five Unit 1 pressurizer nozzles with dissimilar metal welds.

Qualification records for ISI personnel, four Southern Nuclear Operations NDE inspectors, and 12 Lambert, McGill, Thomas, Inc contract inspectors

Material certifications for liquid penetrant test materials, Magnaflux SKC-S cleaner, lot number 00E04K, Magnaflux SKD-S2 developer, lot numbers 01E13K and 99A06K, and Magnaflux SKL-SP penetrant, lot number 99A09K.

Material certifications for Ultrigel II, lot number 04325, and Magnaflux powder, Batch 91F054. Letter of certification for steel test plates, numbers SCS-112 and SCS-113, used to qualify yokes used in magnetic particle exams.

Calibration records for thermometers used in ISI activities, Serial numbers 3092, 3096, 3481, 3481, 3695, 3775, & 3778.

Indication Evaluation Record (IER) for weld number 11201-V6-001-W184, CRD Housing Weld, rounded indication found during PT exam.

Indication Notification Form for frozen spherical bearings at both ends of strut, support number 11205-003-H012.

Indication Notification Form for identification of white residue around steam generator bowl drain weld, weld number 11201-B6-003-I10.

Records of radiographic examination of weld numbers 040502A and 040502B for piping section replaced under MWO 1980204001.

Walkdown in leak identified valves or components 11208U4447, 11208U4465, 11204U4053, 11204U4087, 11201U4208, 1HV8141, 1HV8143, 11204X4213, 1FT0160, and 11901U4004
Boric Acid Leakage Screening Reports and Corrosion Assessments 1204-2005-003, 1205-2005-002, 1208-2005-006, 1208-2005-007, and 1208-2005-008

Steam Generator Eddy Current Data Analyses for Primary, Secondary, and Resolution Especially Including Over Expansions and Bulges

Westinghouse SG-SGDA-05-4, SG Degradation Assessment for Vogtle Unit 1 1R12 Refueling Outage, March 2005

Westinghouse MRS-TRC-1652, Rev. 0, Use of Appendix H Qualified Techniques at Vogtle Unit 1 12 th refueling

Westinghouse MRS-TRC-1651, Rev. 0, Vogtle Unit 1 R12 Site-Specific Performance Demonstration (SSPD) Program

Steam Generator Data Analyst Qualification and Certification Records

CRs: 2005102216, 2005101676, 2005102075, 2005102306, and 2005102332

Section 1R12: Maintenance Effectiveness

Maintenance Rule Database: 2003-2004 for Unit 2 ACCW system

Maintenance Rule Database: 2004-January 2005 for 480 Volt Switchgear

Maintenance Rule Database: 2004-January 2005 for Containment Penetration Conductor Overcurrent Protection & Isolation Devices

Maintenance Rule Database: 2004-January 2005 for Unit 2 CVCS system

CRs: 2004150600, 2004150631, 2004150690 and 2004150691, 2004002944, 2004000153, 2004003082

MWO 2050010601

Procedures

22408-C, Circuit Board Removal and Replacement

24618-2, RCP Thermal Barrier HX Return Header Pressure 2P-2041 Calibration

55025-C, Calculation of Breaker Trip Settings for AC Molded Case Circuit Breakers and Selection of Thermal Overload Protection for AC Motor Loads

Section 1R17: Permanent Plant Modifications

Self-Assessment Documents

VQA-2003-073, QA Audit of Design Change and Modification Control
 RER 2003-V0304, Focused Self-Assessment of Vogtle 6B Feedwater Heater Replacement Letdown Heat Exchanger Replacement Self-Assessment dated March 31-April 2, 2004
 CRs: 2003001450, 2003001457, 2003002766, 2004000504, 2004150135, 2004150140, 2004150824

Section 1R20: Refueling and Outage Activities

Procedures

00309-C, Control of Unattended Temporary Material in Containment in Modes 1-4
 11899-1, RCS Draindown Configuration Checklist
 12000-C, Post Refueling Operations (Mode 6 to Mode 5)
 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
 13005-1, Reactor Coolant System and Refueling Cavity Draining
 14210-1, Containment Building Penetrations Verification - Refueling
 14406-1, Boron Injection Flow Path Verification - Shutdown
 14900-C, Containment Exit Inspection
 18019-C, Loss of Residual Heat Removal
 27504-C, Equipment Hatch Emergency Closure
 29540-C, Risk Assessment Monitoring
 29542-C, Shutdown Risk Assessment
 93300-C, Conduct of Refueling Operations

Section 1R22: Surveillance Testing

Procedures

87006-1, Movable Incore Detector System Operation Instructions
 88025-C, Determination of Movable Incore Detector Operating Voltage

Section 1EP4: Plans and Procedures

Procedures

91101-C, Emergency Response Organization, Rev. 19.1
 91102-C, Duties of the Emergency Director, Rev. 23
 91105-C, Duties of the EOF Manager, Rev. 14
 91203-C, Activation and Operation of the Emergency Operations Facility, Rev. 21
 91304-C, Estimating Offsite Dose, Rev. 15
 91305-C, Protective Action Guidelines, Rev. 20
 91403-C, Site Dismissal, Rev. 14
 91501-C, Recovery, Rev. 15.1
 91502-C, Core Damage Assessment, Rev. 14

Vogtle Electric Generating Plant Unit 1 and Unit 2 Emergency Plan Rev. 39
Licensing Document Change Request number 2004023, version 1 Unit C
Justification for Revision 39 to the VEGP Emergency Plan
10 CFR 50.54(q) Evaluation
Applicability Determination Checklist

91102-C, Rev. 2, Duties of the Emergency Director
Commitment Tracking Data Base Update (CTDBU) Form
10 CFR 50.54(q) Evaluation

91303-C, Rev. 18, Field Sampling and Surveys
Procedure Review Request Form
10 CFR 50.54(q) Evaluation

91305-C, Rev. 18, Protective Action Guidelines
Procedure Review Request Form

91002-C, Rev. 42, Emergency Notifications
Procedure Review Request Form
10 CFR 50.54(q) Evaluation

91001-C, Rev. 21, Emergency Classification and Implementing Instructions
Procedure Review Request Form
10 CFR 50.54(q) Evaluation

Records and Data

Siren System Availability Test Records for July - December 2004

Miscellaneous training records of drill/exercise participation by ERO personnel for 2003-2004

Section 40A2: Identification and Resolution of Problems

Procedures

14805-1/2, Residual Heat Removal Pump and Check Valve IST and Response Time Tests

Section 40A3: Event Followup

Procedures

19000-C, E-0 Reactor Trip or Safety Injection

19001-C, ES-0.1 Reactor Trip Response

91001-C, Emergency Classification and Implementing Instructions