UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
245 PEACHTREE CENTER AVENUE NE, SUITE 1200
ATLANTA, GEORGIA 30303-1257

July 30, 2012

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

SUBJECT: VOGTLE ELECTRIC GENERATING PLANT - NRC INTEGRATED INSPECTION REPORT 05000424/2012003 AND 05000425/2012003

Dear Mr. Tynan:

On June 30, 2012, 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 results which were discussed on July 19, 2012, with Mr. S. Bargeron and other members of your staff.

The inspectors 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.

The inspectors identified one self-revealing finding of very low safety significance (Green) during this inspection. The inspectors determined that this finding involved a violation of NRC requirements. Further, the licensee identified two violations which the inspectors determined were of very low safety significance and are listed in this report. The NRC is treating these violations as non-cited violations (NCV) consistent with section 2.3.2 of the 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 Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington DC 20555-0001; with copies to the Regional Administrator, Region II; the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Resident Inspector at the Vogtle Electric Generating Plant.

If you disagree with the cross-cutting aspect assigned in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your disagreement, to the Regional Administrator, Region II; and the NRC Resident Inspector at the Vogtle Electric Generating Plant. The information you provide will be considered in accordance with Inspection Manual Chapter 0305.

In accordance with the 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 Agencywide Document Access and Management System (ADAMS). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

Sincerely,

/RA/

Frank Ehrhardt, Chief
Reactor Projects Branch 2
Division of Reactor Projects

Docket Nos.: 05000424, 05000425
License Nos.: NPF-68 and NPF-81

Enclosures: Inspection Report 05000424/2012003 and 05000425/2012003
w/Attachment: Supplemental Information

cc w/encl: (See page 3)

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/RA/

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Amy Whaley
Resident Manager
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Letter to Tom E. Tynan from Frank Ehrhardt dated July 30, 2012

SUBJECT: VOGTLE ELECTRIC GENERATING PLANT - NRC INTEGRATED INSPECTION REPORT 05000424/2012003 AND 05000425/2012003

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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.:	05000424/2012003 and 05000425/2012003
Licensee:	Southern Nuclear Operating Company, Inc. (SNC)
Facility:	Vogtle Electric Generating Plant, Units 1 and 2
Location:	Waynesboro, GA 30830
Dates:	April 01, 2012 through June 30, 2012
Inspectors:	M. Cain, Senior Resident Inspector T. Chandler, Resident Inspector M. Miller, Senior Project Engineer S. Sandal, Senior Reactor Inspector (4OA5) R. Patterson, Reactor Inspector (4OA5) B. Collins, Reactor Inspector (4OA5) M. Endress, Reactor Inspector (4OA5)
Approved by:	Frank Ehrhardt, Chief Reactor Projects Branch 2 Division of Reactor Projects

Enclosure

SUMMARY OF FINDINGS

IR 05000424/2012-003, 05000425/2012-003; 04/01/2012 - 06/30/2012; Vogtle Electric Generating Plant, Units 1 and 2; Surveillance Testing

The report covered a three-month period of inspection by the resident inspectors, a senior reactor inspector, two reactor inspectors, and a senior project engineer. One non-cited violation (NCV) with very low safety significance (Green) 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 assigned a severity level after NRC management review. The cross-cutting aspect was determined using IMC 0310, "Components Within The Cross-Cutting Areas." The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, Reactor Oversight Process, Rev 4 dated December 2006.

Cornerstone: Mitigating Systems

Green. The inspectors identified a self-revealing NCV of Technical Specification (TS) 5.4.1, for two instances of failure to properly implement approved maintenance procedures and work order instructions. Specifically, maintenance electricians inadvertently removed the 2BD1CB safety related battery charger from service while attempting to perform a routine quarterly battery surveillance on the 2DD1CB battery charger. When the '2BD1CA/2BD1CB Trouble' alarm was received in the control room, the operators immediately contacted the electricians and the work was halted. Battery charger 2BD1CB was restored to service within 31 minutes. In the second instance, maintenance electricians inadvertently rendered both battery chargers for the 1CD1 safety-related battery inoperable during load-sharing adjustments on the 1CD1CB battery charger. The licensee restored the 1CD1CA battery charger to service within a few minutes. The licensee entered both of these issues into their corrective action program (CR 445343 & 457102 respectively).

The inspectors concluded that this finding was more than minor because it impacted the Reactor Safety Mitigating Systems Cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences and affected the cornerstone attribute of equipment performance. Specifically, the unintentional opening of the AC input breakers to the 2BD1CB, 1CD1CA and 1CD1CB battery chargers resulted in the chargers being declared inoperable for several minutes. The inspectors used the Phase 1 Initial Screening and Characterization of Findings (IMC 0609.04 Exhibit 1) to characterize the finding. Since the inspectors answered "No" to all of the Table 4a Mitigating Systems Cornerstone questions, the inspectors concluded that the finding was of very low safety significance (Green). The inspectors determined that the cause of this finding was related to the Work Practices component of the Human Performance cross-cutting area due to less than adequate procedure use and self/peer checking. [H.4(a)] (Section 1R22)

The inspectors reviewed violations of very low safety significance that were identified by the licensee. Corrective actions taken or planned by the licensee have been entered into the licensee's corrective action program. These violations and the corrective action tracking numbers are listed in Section 4OA7 of this report.

REPORT DETAILS

Summary of Plant Status

Unit 1 started the report period at full rated thermal power (RTP) and was subsequently manually tripped from 100 percent power on April 14 due to a loss of the 1B Main Feed Pump (MFP). The unit was restarted on April 15 and attained full RTP power on April 17. Unit 1 operated at essentially full RTP for the remainder of the inspection period.

Unit 2 operated at essentially full RTP for the entire inspection period.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity

1R01 Adverse Weather Protection (71111.01)

a. Inspection Scope

Grid Reliability. The inspectors reviewed the licensee's procedures to verify that communication protocols exist between the transmission system operator and the control room to promptly identify issues that could impact the offsite power system. The inspectors also verified the adequacy of these procedures to address measures to monitor and maintain availability and reliability of both the offsite alternating current (AC) power system and the alternate AC power system. The inspectors also conducted walkdowns to verify material condition of offsite AC power systems and onsite alternate AC power systems to the plant, including 500 KV and 230 KV switchyards and transformers. Inspectors reviewed licensee procedures and conducted walkdowns in accordance with OpESS FY 2012-01 "High Wind Generated Missile Hazards," inspection guidance to ensure that the licensee properly implements and adheres to adverse weather procedural guidance concerning the identification of potential missile hazards and that safety related systems, structures and components are adequately protected from potential missile hazards. Documents reviewed are listed in the Attachment.

Seasonal Readiness Review. The inspectors performed a walkdown of the following two systems to verify they would remain functional during high temperature conditions. The inspectors walked down the systems to determine component temperatures and interviewed engineers to ensure that the systems would be operable at the observed temperature. Additionally, the inspectors reviewed the condition report (CR) database to verify that adverse weather related items were being identified and appropriately resolved. Documents reviewed are listed in the Attachment.

- Unit 1 nuclear service cooling water (NSCW) system (both trains)
- Unit 2 emergency diesel generator (EDG) system (both trains)

b. Findings

No findings were identified.

1R04 Equipment Alignment (71111.04)

a. Inspection Scope

Partial System Walkdown. 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 positions specified in the documents listed in the Attachment. Additionally, the inspectors reviewed the CR database to verify that equipment alignment problems were being identified and appropriately resolved.

- Unit 2 train B residual heat removal (RHR) system while the train A RHR system was out of service due to a planned maintenance outage
- Unit 2 train A spent fuel pool cooling (SFP) and purification system while the train B SFP cooling and purification system was out of service due to a planned maintenance outage
- Unit 2 train B containment spray (CS) system while the train A CS system was out of service due to a planned maintenance outage
- Unit 1 train A&B motor-driven auxiliary feedwater (AFW) systems while the train C turbine-driven AFW pump was out of service due to a planned maintenance outage

b. Findings

No findings were identified.

1R05 Fire Protection Annual/Quarterly (71111.05AQ)

a. Inspection Scope

Fire Area Tours. The inspectors walked down the following five 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 (LCO) 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 2 charging pump rooms and level C pipe penetration area
- Unit 2 control building level A east and west penetration areas
- Unit 1 control building level B east and west penetration areas
- Unit 2 AFW pump house
- Unit 1 B train EDG building

b. Findings

No findings were identified.

1R06 Flood Protection Measures (71111.06)

a. Inspection Scope

Internal Flood Review. The inspectors walked down the following areas which contained risk-significant structures, systems and components below flood level to verify flood barriers were in place. Motor controllers and terminal boxes that could become potentially submerged were inspected to ensure that the sealing gasket material was intact and undamaged. The inspectors reviewed selected licensee alarm response procedures to verify alarm setpoints and setpoints for sump pump operation were consistent with the UFSAR, the setpoint index, and Technical Specifications (TS).

- Unit 1 safety injection (SI) pump rooms
- Unit 2 SI pump rooms

b. Findings

No findings were identified.

1R11 Licensed Operator Requalification Program and Licensed Operator Performance (71111.11)

a. Inspection Scope

Resident Quarterly Observation of Operator Requalification Activities. The inspectors observed operator performance on May 29, during the licensed operator simulator examination described in dynamic simulator scenario DS#5 Rev.20. The scenario observed consisted of a failed pressurizer level instrument, followed by the loss of a Class 1E 4160 kV bus, which was subsequently followed by a small break loss of coolant accident (LOCA). Documents reviewed are listed in the Attachment. The inspectors specifically assessed the following areas:

- Correct use of the abnormal and emergency operating procedures
- Ability to identify and implement appropriate actions in accordance with the requirements of the TS
- 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 the post-evaluation critique

Resident Quarterly Observation of Operator Performance In-Plant. The inspectors observed operator performance in the main control room on April 15, during reactor startup and power ascension following a manual trip of the Unit 1 reactor due to a loss of the 1B MFP. Documents reviewed are listed in the Attachment. The inspectors specifically assessed the following areas:

- Operator compliance and use of plant procedures, including procedure entry and exit, performing procedure steps in the proper sequence, procedure place keeping, and TS entry and exit
- Control board component manipulations
- Communications between crew members
- Use and interpretation of plant instruments, indications and alarms
- Use of human error prevention techniques, such as pre-job briefs and peer checking
- Documentation of activities, including initials and sign-offs in procedures, control room logs, and TS entry and exit
- Management and supervision of activities, including risk management and reactivity management

b. Findings

No findings were identified.

1R12 Maintenance Effectiveness (71111.12)

a. Inspection Scope

The inspectors reviewed the following two safety-significant activities to verify that 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. Documents reviewed are listed in the Attachment. Also, the inspectors interviewed system engineers and the maintenance rule coordinator to assess the accuracy of identified deficiencies and extent of condition.

- Decision to extend the completion date of returning all safety-related motor starters to (a)(2) status
- Unit 2 system 1902, waste processing system – gaseous return to (a)(2) status

b. Findings

No findings were identified.

1R13 Maintenance Risk Assessments and Emergent Work Control (71111.13)

a. Inspection Scope

The inspectors reviewed the following five work activities 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.

- Week of April 9: operability testing on the 1A EDG concurrent with the maintenance outage on Unit 1 train A NSCW cooling tower fan #3
- Week of April 30: surveillance testing of Unit 2 AFW pumps in conjunction with work in the Unit 2 high-voltage switchyard (HVSWYD)
- Week of May 7: replacement of Unit 1 battery charger 1CD1CA concurrent with high-risk work in the Unit 1 HVSWYD
- Week of May 21: operability testing on the 1B EDG concurrent with high-risk work in the Unit 1 HVSWYD
- Week of May 28: emergent work on the 1B EDG concurrent with high-risk work in the Unit 1 HVSWYD

b. Findings

No findings were identified.

1R15 Operability Determinations and Functionality Assessments (71111.15)

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 438832, core exit thermocouple 2TE10023 (N10) is indicating sporadically
- CR 436853, gas voiding discovered at 1-1208-X4-052, common suction line of the Unit 1 centrifugal charging pumps (CCP)
- CR 438268, recent industry OE concerning check valve seal caps
- CR 461957, NSCW pump #2 failed response time test
- CR 464072 failed minor design change functional test on diesel fire pump #2

b. Findings

No findings were identified.

1R18 Plant Modifications (71111.18)

a. Inspection Scope

Temporary Modifications. The inspectors reviewed temporary modification SNC382508 and associated 10CFR50.59 screening criteria against the system design bases documentation and procedure NMP-ES-054-001, Temporary Modification Processing. This temporary modification provides a temporary power source for Unit 1 MCC 1NBJ from Unit 2 switchgear 2NB27. Installation of this temporary modification results in the loss of the fuel handling building negative pressure boundary for both units. The inspectors reviewed the implementation, engineering justification, and operator awareness for this temporary modification.

Permanent Modification. The inspectors reviewed design change package (DCP) 1062305601, Class 1E Battery Charger Replacements 1AD1CA, 1AD1CB, 1CD1CA & 1CD1CB, against the system design bases documentation. This DCP replaces the existing C&D battery chargers with a higher efficiency Ametek/SCI battery charger. The inspectors reviewed the DCP to verify that the modification did not degrade the system design bases, licensing bases, or equipment performance capability. Additionally, the inspectors verified that plant risk was not increased unnecessarily during implementation of the modification.

b. Findings

No findings were identified.

1R19 Post Maintenance Testing (71111.19)

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

- Maintenance work order (MWO) SNC385786, Unit 1 trip event investigation for 1B steam generator feed pump turbine (SGFPT) speed
- Maintenance outage work orders for the Unit 2 B train spent fuel pool pump; MWO SNC135456 , clean, inspect, and lubricate coupling and MWO SNC 130555, replace breaker with EMAX type
- Maintenance outage work orders for the Unit 1 B train NSCW pump #2; MWO SNC125393, megger motor, MWO SNC124352, calibrate feeder breaker ammeter and relay, MWO SNC125394, clean, inspect, and lube pump, and MWO SNC125479, calibrate feeder breaker timer relay
- MWO SNC136211– 2HV9002A CS pump 1 suction isolation stem lubrication

- MWO SNC135180, replace critical battery charger circuit boards
- MWO SNC393070, unexpected control room alarm, positive rate trip bistable N-42

b. Findings

No findings were identified.

1R22 Surveillance Testing (71111.22)

a. Inspection Scope

The inspectors reviewed the following seven surveillance test procedures and either observed the testing or reviewed test results to verify that testing was conducted in accordance with the procedures and that the acceptance criteria adequately demonstrated that the equipment was operable. 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
- 24532-2 Rev. 13, condensate storage tank #1 level 2L-5111 channel calibration
- 28912-C Rev. 60.2, 92 day battery and charger inspection and maintenance 2DD1B safety related battery
- 14980B-2 Rev 22.5, diesel generator 2B operability test (fast start)
- 23290-C Rev. 28, Agastat Series 2100 and 7000 timing relay calibration

In-Service Tests (IST)
- 14805A-2 Rev. 3, train A residual heat removal pump IST and response time test
- 14803B-1 Rev. 2.2, component cooling water Pumps and Check Valve IST and response time tests

RCS Leakage Detection
- 14905-1 Rev. 67.2, RCS leakage calculation (Inventory Balance)

b. Findings

Introduction. A Green self-revealing non-cited violation (NCV) of TS 5.4.1 was identified for two instances of failure to properly implement approved maintenance procedures and work order instructions. Specifically, maintenance electricians inadvertently removed the 2BD1CB safety related battery charger from service while attempting to perform routine quarterly battery surveillance on the 2DD1CB battery charger. In the second instance, maintenance electricians inadvertently rendered both battery chargers for the 1CD1 safety-related battery inoperable during load-sharing adjustments on the 1CD1CB battery charger.

Description. On May 3, 2012, maintenance electricians commenced a routine quarterly battery surveillance test for the 2DD1CB (D train) safety related battery. After making initial battery checks in the correct battery room, electricians departed the 2DD1CB

battery room and proceeded to place a call to the main control room in accordance with procedure 28912-C, “92-Day Battery and Charger Inspection and Maintenance.” After the call was completed, electricians inadvertently entered the 2BD1CB (B train) battery charger room versus the 2DD1CB (D train) battery charger room, as instructed in their maintenance work order (MWO) and procedure, and proceeded to open the AC input breaker for the 2BD1CB battery charger thus actuating a trouble alarm in the main control room. When ‘2BD1CA/2BD1CB Trouble’ alarm was received in the main control room, the electricians were immediately contacted and the work was halted. Battery charger 2BD1CB was then restored to service. As a result, the 2BD1CB battery charger was rendered inoperable for 31 minutes while the licensee performed restoration activities. The licensee concluded and the inspectors agreed that because the 2DD1CB battery charger was never removed from service while the 2BD1CB was out of service, no loss of safety function occurred.

On May 18, 2012, maintenance electricians were performing post modification functional testing and adjustments for the 1CD1CB battery charger per “Chargers 1CD1CA AND 1CD1CB Functional Test – V7” procedure. Safety-related battery charger 1CD1CA was in-service at the time. While performing step 4.1.41, load-sharing adjustment, maintenance electricians inadvertently tripped the AC input breaker for both the 1CD1CA and 1CD1CB battery chargers when they adjusted the float voltage outside of the specified range of 137.47 to 138.65 VDC (i.e. float voltage exceeded 140 VDC for greater than 10 seconds) causing the AC input breakers for both chargers to inadvertently open. This resulted in a battery discharge lastly approximately three minutes and 45 seconds before battery charger 1CD1CA could be restored to service. The licensee concluded and the inspectors agreed that because the 1AD1 battery chargers were never removed from service while the 1CD1 battery chargers were out of service, no loss of safety function occurred.

Analysis. The inadvertent disabling of an in-service piece of safety related equipment is a performance deficiency. The inspectors concluded the finding was more than minor because it impacted the Reactor Safety Mitigating Systems Cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences and affected the cornerstone attribute of equipment performance. Specifically, the unintentional opening of the AC input breakers to the 2BD1CB, 1CD1CA and 1CD1CB battery chargers resulted in the chargers being declared inoperable for a total of 35 minutes.

The inspectors evaluated the finding using IMC 0609, Appendix A, “Determining the Significance of Reactor Inspection Findings for At-Power Situations.” The inspectors used the Phase 1 Initial Screening and Characterization of Findings (IMC 0609.04 Exhibit 1) to characterize the finding. Since the inspectors answered “No” to all of the Exhibit 1, Table 4a Mitigating Systems Cornerstone screening questions, the inspectors concluded that the finding was of very low safety significance (Green).

The primary cause of the performance deficiency, as determined by the licensee’s basic cause determinations, was less than adequate procedure use and self-checking. The inspectors determined that the cause of this finding was related to the Work Practices component of the Human Performance cross-cutting area due to less-than-adequate

human error prevention techniques. [H.4(a)] Specifically, self and peer checking techniques were less than adequate.

Enforcement. The inspectors determined that the finding represents a violation of regulatory requirements because it involved improper implementation of procedures and work order instructions associated with safety-related plant equipment. TS 5.4.1, requires that written procedures, specified in Regulatory Guide 1.33, Revision 2, Appendix A, February 1978, shall be established, implemented, and maintained. Regulatory Guide 1.33 states, in part, that maintenance activities that can affect the performance of safety-related equipment should be performed in accordance with written procedures, documented instructions, or drawings appropriate to the circumstances. Contrary to the above, maintenance electricians failed to follow written work order instructions and approved procedures. As a result of the violation, the 2BD1CB, 1CD1CA and 1CD1CB safety related battery chargers were rendered inoperable for a total of 35 minutes. Because this violation was of very low safety significance and it was entered into the licensee's corrective action program (ref. CR 445343 & 457102), this violation is being treated as an NCV, consistent with the Enforcement Policy. This finding will be tracked as NCV 05000424, 425/2012003-01, Failure to Follow Procedures Renders Safety Related Battery Chargers Inoperable.

1EP6 Drill Evaluation (71114.06)

a. Inspection Scope

The inspectors reviewed the simulator 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 May 21, 2012, the inspectors observed a training evolution in the simulator using exercise guide V-RQ-SE-12401 Rev. 1.0, Operation from the Remote Shutdown Panel. The drill scenario involved a fire in the main control room, followed by the subsequent evacuation of the control room and stabilization of the plant in hot standby using the remote shutdown panels. The inspectors observed the initial declaration and emergency notifications.

b. Findings

No findings were identified.

4. OTHER ACTIVITIES

4OA1 Performance Indicator Verification (71151)

a. Inspection Scope

The inspectors sampled licensee submittals for the listed PIs during the period from April 1, 2011, through March 31, 2012, for both 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 procedure 00163-C, Rev. 14.0, NRC Performance Indicator and Monthly Operating Report Preparation and Submittal.

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 were identified.

4OA2 Problem Identification and Resolution (71152)

.1 Daily Condition Report Review. 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 Focused Review

a. Inspection Scope

The inspectors performed a detailed review of the following CR which addressed the uncontrolled loading of the 2B EDG during a monthly surveillance test. The goal of the review was to verify that 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, Criterion XVI. Documents reviewed are listed in the Attachment.

- 474941 – Unit 2 diesel generator B uncontrollably loaded during surveillance testing

b. Findings

No findings were identified.

.3 Semi-Annual Trend Review

a. Inspection Scope

The inspectors performed a review of the licensee's Corrective Action Program and associated documents to identify trends which could indicate the existence of a more significant safety issue. The review was focused on repetitive equipment issues, but also considered the results of inspector daily CR screening and the licensee's trending efforts. The review nominally considered the six month period of October 2011 through March 2012 although some examples extended beyond those dates when the scope of the trend warranted. The inspectors also reviewed several CRs associated with operability determinations which occurred during the period. The inspectors compared their results with the results contained in the licensee's latest integrated performance assessment. Corrective actions associated with a sample of the issues identified in the licensee's trend reports 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. The inspectors compared the licensee integrated performance assessment with the results of the inspectors' daily screening and did not identify any discrepancies or potential trends in the data that the licensee had failed to identify.

b. Findings

No findings were identified.

4OA3 Follow-up of Events and Notices of Enforcement Discretion (71153)

(Closed) LER 05000424/2012-001-00 Seismically Qualified RWST Aligned to Non-Seismic Piping

a. Inspection Scope

On February 15, 2012, with both Units 1 and 2 operating 100 percent power, the licensee determined that opening the boundary valve between the safety related and seismically qualified refueling water storage tank (RWST) and the non-safety related and non-seismically qualified spent fuel pool purification (SFPP) system in Modes 1 through 4, rendered the RWST inoperable. Plant procedures had been revised in 2009 to allow opening this boundary valve in Modes 1 through 4 under administrative controls. The 10 CFR 50.59 safety evaluation that had been performed to support the procedure change had concluded that the administrative controls would allow the RWST to remain operable. However, upon receipt and review of NRC Information Notice 2012-01, it was determined that the RWST would be considered to be inoperable regardless of the administrative controls established when the RWST was aligned to non-seismic piping in Modes 1 through 4. Since the boundary valve had been opened in Mode 1 under

administrative controls and the one hour completion time of TS 3.5.4 Condition D was not entered, this represented a condition prohibited by TS. The licensee entered this condition in its CAP as CR 408441.

The inspectors reviewed the information contained within this LER and in the licensee apparent cause determination. The inspectors also interviewed station personnel. The inspectors reviewed TS 3.5.4, Refueling Water Storage Tank, which is applicable during Modes 1 through 4. TS LCO 3.5.4 Condition D requires that the RWST be returned to operable status with a completion time of 1 hour. If the RWST is not returned to operable status within 1 hour, TS LCO 3.5.4 Condition E requires that the unit be placed in Mode 3 within 6 hours and in Mode 5 within 36 hours. A review of the Unit 2 Control Room logs for the past three years did not identify an instance where the Unit 2 boundary valve was opened in Modes 1 - 4 for greater than one hour. However, a review of the Unit 1 Control Room logs, for the past three years, identified that in the fall of 2009 with the unit in Mode 1, the boundary valve had been opened under administrative controls for longer than one hour on several occasions. Since the RWST was not declared inoperable during these periods, TS LCO actions were not entered. NRC Information Notice 2012-01 details that this resulted in operation of the unit which is considered to be a condition prohibited by TS and is reportable pursuant to 10 CFR 50.73(a)(2)(i)(B).

The inspectors reviewed the licensee's immediate and planned corrective actions, which included immediately suspending all RWST alignment to non-seismic piping in Modes 1 – 4 and revising procedures which allowed such alignment. Additionally, the licensee locked closed the boundary valve between the RWST and SFPP system and included it in the safety-related locked valve program. The inspectors determined the licensee corrective actions were sufficient to address the issue.

b. Findings

One licensee-identified violation was identified and is documented in section 4OA7 of this report. This LER is closed.

4OA5 Other Activities

a. Inspection Scope

.1 Quarterly Resident Inspector Observations of Security Personnel and Activities

During the inspection period, the inspectors conducted the following observations of security force personnel and activities to ensure that the activities were consistent with licensee security procedures and regulatory requirements relating to nuclear plant security. These observations took place during both normal and off-normal plant working hours.

These quarterly resident inspector observations of security personnel and activities did not constitute any additional inspection samples. Rather, they were considered an integral part of the inspectors' normal plant status reviews and inspection activities.

.2 (Closed) NRC Temporary Instruction (TI) 2515/177, "Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal, and Containment Spray Systems (NRC Generic Letter (GL) 2008-01)"

The inspectors reviewed the implementation of the licensee's actions in response to GL 2008-01, Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal, and Containment Spray Systems. The subject systems included the emergency core cooling system (high head SI, low head SI), residual heat removal system, and containment spray system.

The inspectors reviewed the licensing basis of the facility to verify that actions to address gas accumulation were consistent with the operability requirements of the subject systems.

The inspectors reviewed the design of the subject systems to verify that actions taken to address gas accumulation were appropriate given the specifics of the functions, configurations, and capabilities of these systems. The inspectors reviewed the design and operation of the residual heat removal system to determine if flashing in the suction lines would challenge system operability. The inspectors reviewed selected analyses performed by the licensee to verify that methodologies for predicting gas void accumulation, movement, and impact were appropriate. The inspectors performed walkdowns of selected subject systems to verify that the reviews and design verifications conducted by the licensee had drawn appropriate conclusions with respect to piping configurations and pipe slope which could result in gas accumulation susceptibility.

The inspectors reviewed testing implemented by the licensee to address gas accumulation in subject systems. A selection of test procedures and completed test results were reviewed to verify that test procedures were appropriate to detect gas accumulations that could challenge subject systems. The inspectors reviewed the specified testing frequencies to verify that the testing intervals had appropriately taken historical gas accumulation events as well as susceptibility to gas accumulation into account. The inspectors also reviewed the test programs and processes to verify that they were sensitive to pre-cursors to gas accumulation.

The inspectors reviewed corrective actions associated with gas accumulation in subject systems to verify that identified issues were being appropriately identified and corrected. This review included modifications made to the plant including the installation of additional vent valves. The inspectors reviewed the locations of selected vent valve installations to verify that the locations selected were appropriate based on piping configuration and pipe slopes.

b. Findings and Observations

No findings were identified.

4OA6 Meetings, Including Exit

Exit Meeting

On July, 19th, the resident inspectors presented the inspection results to Mr. S. Bargeron, who acknowledged the findings, and other members of plant staff. The inspectors confirmed that proprietary information was not provided or examined during the inspection.

4OA7 Licensee-Identified Violations

The following violations of very low significance (Green) or Severity Level IV were identified by the licensee and are violations of NRC requirements which meet the criteria of the NRC Enforcement Policy for being dispositioned as non-cited violations.

.1 Seismically Qualified RWST Aligned to Non-Seismic Piping

TS limiting condition of operation (LCO) 3.5.4 Condition D requires that the RWST be returned to operable status with a completion time of 1 hour. If the RWST is not returned to operable status within 1 hour, TS LCO 3.5.4 Condition E requires that the unit be placed in Mode 3 within 6 hours and in Mode 5 within 36 hours. Contrary to the above, the licensee aligned the seismically qualified RWST to the non-seismically qualified SFPP system in Mode 1 for periods greater than one hour. The licensee inappropriately believed that manual operator compensatory actions could be used to maintain the RWST operable. Consequentially, no LCO required actions were taken. The licensee entered this condition in its corrective action program as CR 408441. This finding was assessed using IMC 0609, Phase 1 screening worksheet of Attachment 4 and was determined to be of very low safety significance (Green) because the finding represents a qualification deficiency confirmed not to result in the loss of functionality of the RWST. (4OA3)

.2 Maintenance Activities Inadvertently Renders 1B EDG Inoperable

10 CFR 50 Appendix B, criterion V requires that activities affecting quality shall be prescribed by documented instructions, procedures, or drawings, and that these instructions, procedures, or drawings include appropriate quantitative or qualitative acceptance criteria for determining that important activities have been satisfactorily accomplished. Contrary to the above, maintenance procedure 27599-C Rev. 2.2, EDG Fuel Oil Filter and Strainer Maintenance provided inadequate guidance for draining the fuel oil filter prior to replacement. As a result, on May 25 maintenance personnel inadvertently rendered the 1B EDG inoperable by draining the fuel header while attempting to replace the east fuel filter. When contacted for assistance a few hours later, engineering and operations personnel recognized this degraded condition and the diesel was declared inoperable. The licensee documented this event in their corrective action program as CR 460607. This finding was assessed using IMC 0609, Phase 1 screening worksheet of Attachment 4 and was determined to be of very low safety significance (Green) because the finding did not represent the actual loss of safety function of a single train for greater than its TS allowed outage time.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee personnel:
R. Brown, Training Manager
R. Collins, Chemistry Manager
S. Bargeron, Plant Manager
K. Dyar, Security Manager
B. Gover, Principal Engineer, Systems Engineering
M. Hickox, Licensing
C. Kirkland, Engineer, Systems Engineering
I. Kochery, Health Physics Manager
D. McCary, Operations Manager
J. Robinson, Engineering Programs Manager
S. Swanson, Site Support Manager
T. Tynan, Site Vice-President
K. Walden, Systems Engineering
S. Waldrup, Engineering Director

NRC personnel:
M. Cain, Senior Resident Inspector
T. Chandler, Resident Inspector
F. Ehrhardt, Chief, Region II Reactor Projects Branch 2

LIST OF ITEMS OPENED AND CLOSED

OPEN AND CLOSED

05000424, 425/2012003-01	NCV	Failure to Follow Procedures Renders Safety Related Battery Chargers Inoperable (Section 1R22)

CLOSED

05000424/2012001-00	LER	Seismically Qualified RWST Aligned to Non-Seismic Piping (Section 4OA3)
05000424/425/2515/177	TI	Managing Gas Accumulation in Emergency Core Cooling Decay Heat Removal, and Containment Spray Systems (NRC Generic Letter (GL) 2008-01) (Section 4OA5.2)

LIST OF DOCUMENTS REVIEWED

Section 1R01: Adverse Weather Protection

Procedures
14230-1 Rev. 22, Offsite AC Circuit Verification and Capacity/Capability Evaluation
14230-2 Rev. 21, Offsite AC Circuit Verification and Capacity/Capability Evaluation
18017-C Rev. 9.0, Abnormal Grid Disturbances/Loss of Grid
13830-1 Rev. 63.1, Main Generator Operation
13830-2 Rev. 50.1, Main Generator Operation
10029-C Rev. 2.2, NERC/SERC Standards for Generator Operators
11889-C Rev. 19, Severe Weather Checklist
VNP-EHS-4-7 Rev. 0, Severe Weather (Units 3&4)

Condition Reports
CR 448419
CR 448240

Other
Operating Experience Smart Sample 2012/01, High Wind Generated Missile Hazards
ND-10-3034, Investigation of Effects of Tornado Missiles from Vogtle 3&4 Construction on the Safety Related Structures and Components in Vogtle Units 1&2
SVO-G1-GSH-004 Rev. 1, Vogtle Units 3&4 Emergency Preparedness Plan

Section 1R04: Equipment Alignment

Procedures
11011-2 Rev. 15.1, Residual Heat Removal System Alignment
11719-2, Rev. 15.4, Spent Fuel Pool Cooling and Purification System Alignment
11115-2 Rev. 9.2, Containment Spray System Alignment
11610-1 Rev. 20.2, Auxiliary Feedwater System Alignment

Drawings
2X4DB130, Rev. 41.0, P&I Diagram Spent Fuel Cooling and Purification System, System No. 1213
2X4DB131 Rev. 32.0, P&I Diagram Containment Spray System – System No. 1206
1X4DB161-1, P&I Diagram Rev. 44.0, Auxiliary Feedwater System Condensate Storage & Degasifier System, System No. 1302
1X4DB161-2, P&I Diagram Rev. 28.0, Auxiliary Feedwater System, System No. 1302
1X4DB161-3, P&I Diagram Rev. 41.0, Auxiliary Feedwater Pump System, (Aux Feedwater Pump Turbine Driver) System No. 1302
1X4DB168-3, P&I Diagram Rev. 34.0, Condensate and Feedwater System, System No. 1305

Section 1R05: Fire Protection Annual/Quarterly

Procedures
92719-2 Rev. 1.1, Zone 19, Auxiliary Building CVCS Centrifugal Charging Pump Rooms Fire Fighting Preplan
92720-2 Rev. 2.1, Zone 20, Auxiliary Building CVCS Pump Room Train A Fire Fighting Preplan
92721-2 Rev. 1.1, Zone 21, Auxiliary Building CVCS NCP Room Fire Fighting Preplan
92714B-2 Rev. 1.1, Zone 14B, Auxiliary Building Level C Fire Fighting Preplans
92789-2 Rev. 3.1, Zone 89 – Control Building – Level A Fire Fighting Preplan
92790-2 Rev. 2.2, Zone 90 – Control Building – Level A Fire Fighting Preplan
92859-2 Rev. 1.2, Zone 159 – Control Building – Level A Fire Fighting Preplan
92787-2 Rev. 2.2, Zone 87 – Control Building – Level A Fire Fighting Preplan
92788-2 Rev. 2.2, Zone 88 – Control Building – Level A Fire Fighting Preplan
92793-2 Rev. 3.2, Zone 93 – Control Building – Level A Fire Fighting Preplan
92802-2 Rev. 2.2, Zone 102 – Control Building – Level A Fire Fighting Preplan
92858-2 Rev. 1.2, Zone 158 – Control Building – Level A Fire Fighting Preplan
92760-1 Rev. 1.2, Zone 60 – Control Building – Level B Fire Fighting Preplan
92761-1 Rev. 2.1, Zone 61 – Control Building – Level B Fire Fighting Preplan
92764-1 Rev. 4.1, Zone 64 – Control Building – Level B Fire Fighting Preplan
92762-1 Rev. 4.0, Zone 62 – Control Building – Level B Fire Fighting Preplan
92763-1 Rev. 1.2, Zone 63 – Control Building – Level B Fire Fighting Preplan
92782-1 Rev. 1.2, Zone 82 – Control Building – Level B Fire Fighting Preplan
92855-2, Rev. 0.2, Zone 155 – Auxiliary Feedwater Pumphouse – Train B Fire Fighting Preplan
92856-2, Rev. 0.2, Zone 156 – Auxiliary Feedwater Pumphouse Fire Fighting Preplan
92857A-2, Rev. 0.2, Zone 157A – Auxiliary Feedwater Pumphouse – Train C Fire Fighting Preplan
92857B-2, Rev. 0.2, Zone 157B – Auxiliary Feedwater Pumphouse – Train C Fire Fighting Preplan
92862-1 Rev. 2.2, Zone 162 – Diesel Generator Building Fire Fighting Preplan
92864-1 Rev. 2.2, Zone 164 – Diesel Generator Building – Train B DFO Tank Fire Fighting Preplan

Section 1R06: Flood Protection Measures

Procedures
Procedure Number 17061-1, Annunciator Response Procedures for ALB 61 on process control panel, Revision 19.3

Design Basis and Calculations
Control Number DC-1003, Flooding - Interdiscipline
Control Number DC-1009, Plant Single-Failure Criteria
Calculation X6CXC-30, Flooding Analysis Auxiliary Building, Level B

Drawings
1X4DB147-1, P&I Diagram, Aux Bldg Flood Retaining Rooms Alarms & Drains System No. 1218

Section 1R11: Licensed Operator Requalification Program and Licensed Operator Performance

Procedures
12003-C Rev. 50.1, Reactor Startup (Mode 3 to Mode 2)

Other
Dynamic simulator scenario DS#5 Rev.20

Section 1R12: Maintenance Effectiveness

Condition Reports/Technical Evaluations
TE 201590, Replacement of Class 1E and Containment Penetration Citation Series Components with Freedom Series Components
CR 2007111927
CR 2008110081
CR 2010114503

Procedures
50028-C Rev. 18.1, Engineering Maintenance Rule Implementation

Other Records
DCP 99-VAN0071 (SNC143845)

Section 1R15: Operability Determinations and Functionality Assessmenets

Condition Reports
CR 438832
CR 436853
CR 438268
CR 461957
CR 464072

Drawings
1K3-1208-139-01 Rev. 29, CVCS System Fabrication Isometric, System No. 1208

Procedures
14460-1 Rev. 34, Emergency Core Cooling System (ECCS) Flow Path Verification
NMP-AD-012-F03 Rev. 2.0, Immediate Determination of Operability (IDO) Template
14802B-2 Rev. 4, Train B NSCW Pump / Check Valve IST and Response Time Test

Section 1R18: Plant Modifications

Work Orders:
SNC121208
SNC382508

Procedures
NMP-ES-054-001 Rev. 1.0, Temporary Modification Processing
NMP-ES-044, Rev. 10.0, Preparation of Design Change Packages

Condition Reports

Other Records
DCP 1062305601, Class 1E Battery Charger Replacements 1AD1CA, 1AD1CB, 1CD1CA & 1CD1CB

Section 1R19: Post-Maintenance Testing

Procedures
23535B-C Rev. 6.1, SG Feed Pump B Speed Control Calibration
22408A-C Rev. 3, Circuit Board Removal, Inspection, Cleaning and Reinstallation
13719-2 Rev. 49.1, Spent Fuel Pool Cooling and Purification System
14802B-1 Rev. 5, Train B NSCW Pump/Check Valve IST and Response Time Test
14825-2 Rev. 90, Quarterly Inservice Valve Test
22408A-C Rev. 3, Circuit Board Removal, Inspection, Cleaning and Reinstallation
24705-2 Rev. 36.1, Nuclear Instrumentation System Power Range Channel 2N42 Channel Calibration

Work Orders
SNC 385786
SNC135456
SNC 130555
SNC125393
SNC124352
SNC125394
SNC125479
SNC136211
SNC135180
SNC393070

Condition Reports
CR 439107

Other Records
Unit 1 operator logs for 5/1/12
Unit 2 operator logs for 5/8/12
SCL02849 Replace Critical Battery Charger Circuit Boards

Section 1R22: Surveillance Testing

Procedures
14805A-2 Rev. 3, Train A Residual Heat Removal Pump IST and Response Time Test
24532-2 Rev. 13, condensate storage tank #1 level 2L-5111 channel calibration

14803B-1 Rev. 2.2, Component Cooling Water Pumps and Check Valve IST and Response Time Tests
28912-C Rev. 60.2, 92 Day Battery and Charger Inspection and Maintenance (2DD1B safety related battery)
14980B-2 Rev 22.5, Diesel Generator 2B Operability Test (Fast Start)
23290-C Rev. 28, Agastat Series 2100 and 7000 Timing Relay Calibration
14905-1 Rev. 67.2, RCS Leakage Calculation (Inventory Balance)

Work Orders
SNC332494
SNC340097
SNC340098
SNC340099
SNC339628
SNC125480
SNC339052

Section 4OA2: Problem Identification and Resolution

Condition Reports
CR 474941
CR 475137

Procedures/Calculations/Engineering Documents
Troubleshooting plan for uncontrolled loading of 2B EDG

Other Records
IDO for CR 474941

Section 4OA5: Other Activities

Licensing Bases Documents
ML081540223, Three Month Response to NRC Generic Letter 2008-01, 05/30/2008
ML082880119, Nine-Month Response to NRC Generic Letter 2008-01, 10/10/2008
ML090220333, Unit 2 Nine-Month Supplemental (Post-Outage) Response to NRC Generic Letter 2008-01, 01/21/2009
ML100220234, Unit 1 Nine-Month Supplemental (Post-Outage) Response to NRC Generic Letter 2008-01, 01/20/2010

Miscellaneous
Minor Design Change 2081590101, Addition of Vent Valve to CCP Suction Line, Rev. 2.0

Drawings
1X4DB119, P&I Diagram Safety Injection (System No. 1204), Rev. 31.0
1X4DB120, P&I Diagram Safety Injection (System No. 1204), Rev. 27.0
1X4DB121, P&I Diagram Safety Injection (System No. 1204), Rev. 42.0
2X4DB121, P&I Diagram Safety Injection (System No. 1204), Rev. 50.0

2X4DB122, P&I Diagram Residual Heat Removal (System No. 1205), Rev. 53.0
2K3-1204-011-01, Safety Injection System Fabrication Isometric Aux. Bldg. Area 3H, Level B, Rev. 5.0

Calculations
FAI-08/200, Evaluation of Potential Waterhammer in Discharge Piping for Vogtle Units 1 and 2, Rev. 2.0

CRs Reviewed During Inspection
2008111024, 2008111153, 2009108933, 2009110924, 2010104636, 2010105015, 2010109265, 2010111230, 2011100578, 2011100763

Procedures
12001-C, Unit Heatup to Hot Shutdown, Rev. 76.1
12006-C, Unit Cooldown to Cold Shutdown, Rev. 95.3
12009-C, RCS Vacuum Refill, Rev. 27
13001-1, Reactor Coolant System Filling and Venting, Rev. 38
13007-1, VCT Gas Control and RCS Chemical Addition, Rev. 34.3
18004-C, Reactor Coolant System Leakage, Rev. 28.2
18019-C, Loss of Residual Heat Removal, Rev. 29
24307-2, Safety Injection Pump 2-1204-P6-004 Discharge Flow 2F-922 Channel Calibration, Rev. 7
24329-2, Low Head Safety Injection Flow 2F-619 Channel Calibration, Rev. 20
50085-C, Gas Accumulation Monitoring and Trending, Rev. 9.1
ES-1.3, Transfer to Cold Leg Recirculation, Rev. 29

Completed Procedures
14460-1, ECCS Flow Path Verification, 08/04/2010
14460-1, ECCS Flow Path Verification, 07/06/2010
14460-1, ECCS Flow Path Verification, 02/10/2010
14460-1, ECCS Flow Path Verification, 04/06/2012
14460-1, ECCS Flow Path Verification, 03/09/2012
14460-1, ECCS Flow Path Verification, 02/02/2012
14460-2, ECCS Flow Path Verification, 06/01/2010
14460-2, ECCS Flow Path Verification, 06/22/2010
14460-2, ECCS Flow Path Verification, 07/21/2010
14460-2, ECCS Flow Path Verification, 03/28/2012
14460-2, ECCS Flow Path Verification, 02/28/2012
14460-2, ECCS Flow Path Verification, 01/04/2012
16006-1, CVCS Fill and Vent Procedure, 10/15/2009
16006-2, CVCS Fill and Vent Procedure, 01/28/2009
16105-1, ECCS Header Fill & Vent and RCS Gravity Fill, 04/20/2008
16105-2, ECCS Header Fill & Vent and RCS Gravity Fill, 04/02/2010
16115-1, Containment Spray Fill and Vent, 04/09/2008

Work Orders
SNC134373, SNC133436, 1110406901, SNC335131, SNC328416, SNC331798, SNC325764, SNC310345, 1100961401, 1101116901, 2100882201, 2101081601, 2101511101

CRs Generated As a Result of Inspection
458533, WCAP-16631-P update
458928, Non-vertical vent valve gas void identification
459051, VCT pressure transient evaluation
459057, Procedure 50085-C should be revised to include guidance on how to evaluate simultaneous voids on ECCS suction piping
459142, Review RER for applicable procedure revision
459734, Possible component location discrepancies between the 14460-1/2 and 50085-C procedures

Section 4OA7: Licensee-Identified Violations

None