



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

April 29, 2014

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 05000424/2014002 AND 05000425/2014002**

Dear Mr. Tynan:

On March 31, 2014, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Vogtle Electric Generating Plant, Units 1 and 2. The enclosed integrated inspection report documents the inspection findings, which were discussed on April 22, 2014, with you and other members of your staff.

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

Based on the results of this inspection, no findings of significance were identified. As we informed you in the most recent NRC integrated inspection report, cross-cutting aspects identified in the last six months of 2013 using the previous terminology were being converted in accordance with the cross-reference in Inspection Manual Chapter (IMC) 0310. Section 40A5 of the enclosed report documents the conversion of these cross-cutting aspects which will be evaluated for cross-cutting themes and potential substantive cross-cutting issues in accordance with IMC 0305 starting with the 2014 mid-cycle assessment review. If you disagree with the cross cutting aspect assigned, 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 Plant.

T. Tynan

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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 05000424/2014002 and 05000425/2014002
w/Attachment: Supplemental Information

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T. Tynan

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T. Tynan

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Letter to Tom E. Tynan from Frank Ehrhardt dated April 29, 2014

SUBJECT: VOGTLE ELECTRIC GENERATING PLANT - NRC INTEGRATED INSPECTION
REPORT 05000424/2014002 AND 05000425/2014002

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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.: 05000424/2014002 and 05000425/2014002

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

Facility: Vogtle Electric Generating Plant, Units 1 and 2

Location: Waynesboro, GA 30830

Dates: January 1, 2014, through March 31, 2014

Inspectors: M. Cain, Senior Resident Inspector
T. Chandler, Resident Inspector
R. Carrion, Senior Reactor Inspector (Section 1R08)
A. Vargas, Reactor Inspector (Section 1R08)

Approved by: Frank Ehrhardt, Chief
Reactor Projects Branch 2
Division of Reactor Projects

Enclosure

SUMMARY OF FINDINGS

IR 05000424/2014002, 05000425/2014002; 01/01/2014 – 03/31/2014; Vogtle Electric Generating Plant, Units 1 and 2, Integrated Inspection Report

The report covered a three-month period of inspection by the resident and regional inspectors. No findings of significance were identified. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process" Revision 5.

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REPORT DETAILS

Summary of Plant Status

Unit 1 started the report period at full rated thermal power (RTP) and was shut down for a planned refueling outage on March 16, 2014. The unit remained shutdown for the remainder of the report period.

Unit 2 operated at essentially 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

Impending Adverse Weather Conditions

The inspectors reviewed the licensee's preparations to protect risk-significant systems from severe cold weather conditions expected on January 7, 2014. The inspectors evaluated the licensee's implementation of adverse weather preparation procedures and compensatory measures, including operator staffing, before the onset of and during the adverse weather conditions. The inspectors reviewed the licensee's plans to address the ramifications of potentially lasting effects that may result from cold weather conditions. The inspectors verified that operator actions specified in the licensee's adverse weather procedure maintain readiness of essential systems. The inspectors verified that required surveillances were current, or were scheduled and completed, if practical, before the onset of anticipated adverse weather conditions. The inspectors also verified the licensee implemented periodic equipment walkdowns or other measures to ensure that the condition of plant equipment met operability requirements. Documents reviewed are listed in the Attachment.

b. Findings

No findings were identified.

1R04 Equipment Alignment (71111.04)

a. Inspection Scope

Partial Walkdown

The inspectors verified that critical portions of selected systems were correctly aligned by performing partial walkdowns. The inspectors selected systems for assessment because they were a redundant or backup system or train, were important for mitigating risk for

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the current plant conditions, had been recently realigned, or were a single-train system. The inspectors determined the correct system lineup by reviewing plant procedures and drawings. Documents reviewed are listed in the Attachment.

The inspectors selected the following three systems or trains to inspect:

- Unit 2 “A” train residual heat removal (RHR) system while the “B” train RHR pump was out of service for maintenance
- Unit 1 “A” and “C” train auxiliary feedwater (AFW) systems while the “B” train AFW system was out of service for planned maintenance
- Unit 2 “A” train nuclear service cooling water (NSCW) transfer system while the “B” train NSCW transfer system was out of service for planned maintenance

Complete Walkdown

The inspectors verified the alignment of the Unit 1 containment spray (CS) system. The inspectors selected this system for assessment because it is a risk-significant mitigating system. The inspectors determined the correct system lineup by reviewing plant procedures, drawings, the updated final safety analysis report, and other documents. To identify any deficiencies that could affect the ability of the system to perform its function(s), the inspectors reviewed records related to outstanding design issues and maintenance work requests. The inspectors verified that the selected system was correctly aligned by performing a complete walkdown of accessible components.

To verify the licensee was identifying and resolving equipment alignment discrepancies, the inspectors reviewed corrective action documents, including condition reports and outstanding work orders. The inspectors also reviewed periodic reports containing information on the status of risk-significant systems, including maintenance rule reports and system health reports. Documents reviewed are listed in the Attachment.

b. Findings

No findings were identified.

1R05 Fire Protection (71111.05AQ)

a. Inspection Scope

Quarterly Inspection

The inspectors evaluated the adequacy of selected fire plans by comparing the fire plans to the defined hazards and defense-in-depth features specified in the fire protection program. In evaluating the fire plans, the inspectors assessed the following items:

- control of transient combustibles and ignition sources
- fire detection systems
- water-based fire suppression systems

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- gaseous fire suppression systems
- manual firefighting equipment and capability
- passive fire protection features
- compensatory measures and fire watches
- issues related to fire protection contained in the licensee's corrective action program

The inspectors toured the following five fire areas to assess material condition and operational status of fire protection equipment. Documents reviewed are listed in the Attachment.

- Unit 1, level "A" east and west penetration areas, fire zones 89, 90, 159, 87, 88, 93, 120, and 158
- Unit 2, CS and RHR pump rooms, fire zones 4, 5, 9 and 10
- Unit 2, 4.16 kV switchgear and remote shutdown rooms, fire zones 91, 92, 98, 103, and 97
- Unit 2, "B" train emergency diesel generator (EDG) building, fire zones 162 and 164
- Unit 1 containment building

Annual Inspection

The inspectors evaluated the licensee's fire brigade performance during a drill on February 10, 2014, and assessed the brigade's capability to meet fire protection licensing basis requirements. The inspectors observed the following aspects of fire brigade performance:

- capability of fire brigade members
- leadership ability of the brigade leader
- use of turnout gear and firefighting equipment
- team effectiveness
- compliance with site procedures

The inspectors also assessed the ability of control room operators to combat potential fires, including identifying the location of the fire, dispatching the fire brigade, and sounding alarms. The inspectors evaluated the licensee's ability to declare the appropriate emergency action level and make required notifications in accordance with NUREG 0654, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants (FEMA-REP-1)" and Title 10 of the Code of Federal Regulations (10 CFR) Part 50, "Domestic Licensing of Production and Utilization Facilities." Documents reviewed are listed in the Attachment.

b. Findings

No findings were identified.

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1R07 Heat Sink Performance (71111.07)

a. Inspection Scope

Annual Review

The inspectors verified the readiness and availability of the Unit 1 "B" train centrifugal charging pump (CCP) motor heat exchanger to perform its design function by observing performance tests or reviewing reports of those tests, verifying the licensee uses the periodic maintenance method outlined in Generic Letter 89-13, "Service Water System Problems Affecting Safety Related Equipment," dated July 18, 1989, observing the licensee's heat exchanger inspections, and verifying critical operating parameters through direct observation or by reviewing operating data. Additionally, the inspectors verified that the licensee had entered any significant heat exchanger performance problems into their corrective action program and that the corrective actions were appropriate. Documents reviewed are listed in the Attachment.

b. Findings

No findings were identified.

1R08 Inservice Inspection (ISI) Activities (IP 71111.08P, Unit 1)

a. Inspection Scope

Non-Destructive Examination Activities and Welding Activities: From March 24, 2014, through April 1, 2014, the inspectors conducted an on-site review of the implementation of the licensee's ISI Program for monitoring degradation of the reactor coolant system, emergency feedwater systems, risk-significant piping and components, and containment systems in Unit 1. The inspectors' activities included a review of non-destructive examinations (NDEs) to evaluate compliance with the applicable edition of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code (BPVC), Section XI (Code of Record: 2001 Edition with 2003 Addenda; 3rd Interval, 2nd Period, 3rd Outage), and to verify that indications and defects (if present) were appropriately evaluated and dispositioned in accordance with the requirements of the ASME Code, Section XI, acceptance standards.

The inspectors directly observed the following NDE mandated by the ASME Code to evaluate compliance with the ASME Code Section XI and Section V requirements and, if any indications and defects were detected, to evaluate if they were dispositioned in accordance with the ASME Code or an NRC-approved alternative requirement.

- Ultrasonic test of component 1-1204-021-19-RB. 6" Elbow to Pipe Weld, Class 2
- VT-3 of component 1-1202-030-H003, Pipe Support

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The inspectors reviewed records of the following NDEs mandated by the ASME Code Section XI to evaluate compliance with the ASME Code Section XI and Section V requirements and, if any indications and defects were detected, to evaluate if they were dispositioned in accordance with the ASME Code or an NRC-approved alternative requirement.

- PT of control rod drive (CRD) housing weld, component number 1-1201-V6-001-W184
- PT of CRD housing weld, component number 1-1201-V6-001-W188

The inspectors observed the welding activities referenced below and reviewed associated documents in order to evaluate compliance with procedures and the ASME Code. The inspectors reviewed the work order, including the weld data sheets, welding procedures, procedure qualification records, and welder performance qualification records.

- Check valve 1-1204-U4-145 replacement on safety injection system line 1-1204-030-2, valve is an ASME Class 1 and 2 break

In addition, the inspectors reviewed the following work orders for the weld packages, including weld data sheets, welding procedures, procedure qualification records, and welder performance qualification records.

- Work order SNC 495226, Seal Weld in the Chemical and Volume Control System Line 1-1208-008-3, ASME Class 1
- Work order SNC 555148, Chemical and Volume Control System Line 1-1208-012-2, ASME Class 1

During non-destructive surface and volumetric examinations performed since the previous refueling outage, the licensee did not identify any relevant indications that were analytically evaluated and accepted for continued service. Therefore, no NRC review was completed for this inspection procedure attribute.

PWR Vessel Upper Head Penetration (VUHP) Inspection Activities: For the Unit 1 vessel head, a bare metal visual examination was not required this outage pursuant to 10 CFR 50.55a as it had been performed during the last refueling outage. Therefore, no NRC review was done for this inspection procedure attribute.

Boric Acid Corrosion Control (BACC) Inspection Activities: The inspectors reviewed the licensee's BACC program activities to ensure implementation with commitments made in response to NRC Generic Letter 88-05, "Boric Acid Corrosion of Carbon Steel Reactor Pressure Boundary," and applicable industry guidance documents. Specifically, the inspectors performed an on-site record review of procedures and the results of the licensee's containment walk-down inspections performed during the current spring refueling outage (1R18). The inspectors also interviewed the BACC program owner, conducted an independent walkdown of containment to evaluate compliance with

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licensee's BACC program requirements, and verified that degraded or non-conforming conditions, such as boric acid leaks, were properly identified and corrected in accordance with the licensee's BACC and corrective action programs.

The inspectors reviewed the following condition reports and associated corrective actions related to evidence of boric acid leakage to evaluate if the corrective actions completed were consistent with the requirements of the ASME Code Section XI and 10 CFR Part 50, Appendix B, Criterion XVI.

- CR 533081, Leak of valve 1HV3565
- CR 537487, Active boric acid leak on 1-1208-U4-A11
- CR 547269, Active boric acid leak on 1-1204-U4-137
- CR 738478, Flange downstream of valve 1-1204-U4-009 has active boric acid leak

The inspectors reviewed the following engineering evaluations completed for evidence of boric acid leakage to determine if degraded components were documented in the corrective action program. The inspectors also evaluated corrective actions for any degraded components to determine if they met the ASME Section XI Code.

- Technical Evaluation (TE) 547817, associated with CR 547269 and includes Corrosion Assessment (CA) 1204-2013-006
- TE 556248, associated with CR 537487 and includes CA 1208-2012-002

Steam Generator (SG) Tube Inspection Activities: The inspectors observed the following activities and/or reviewed the following documentation and evaluated them against the licensee's technical specifications, commitments made to the NRC, ASME Section XI, and Nuclear Energy Institute 97-06 (Steam Generator Program Guidelines):

- Reviewed the licensee's in-situ SG tube pressure testing screening criteria. In particular, the inspectors assessed whether assumed NDE flaw sizing accuracy was consistent with data from the EPRI examination technique specification sheets (ETSS) or other applicable performance demonstrations.
- Compared the numbers and sizes of SG tube flaws/degradation identified against the licensee's previous outage operational assessment.
- Reviewed the SG tube eddy current testing (ET) examination scope and expansion criteria.
- Evaluated if the licensee's SG tube ET examination scope included potential areas of tube degradation identified in prior outage SG tube inspections and/or as identified in NRC generic industry operating experience applicable to the licensee's SG tubes.
- Reviewed the licensee's implementation of their extent of condition inspection scope and repairs for new SG tube degradation mechanism(s).
- Reviewed the licensee's repair criteria and processes.
- Verified that primary-to-secondary leakage (e.g., SG tube leakage) was below three gallons per day, or the detection threshold, during the previous operating cycle according to licensee procedures.

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- Evaluated if the ET equipment and techniques used by the licensee to acquire data from the SG tubes were qualified or validated to detect the known/expected types of SG tube degradation in accordance with Appendix H, "Performance Demonstration for Eddy Current Examination," of EPRI Pressurized Water Reactor Steam Generator Examination Guidelines, Revision 7.
- Reviewed the licensee's secondary side SG foreign object search and removal activities.
- Reviewed ET personnel qualifications.

Identification and Resolution of Problems: The inspectors performed a review of a sample of ISI-related problems which were identified by the licensee and entered into the corrective action program as CRs. The inspectors reviewed the CRs to confirm that the licensee had appropriately described the scope of the problem, and had initiated corrective actions. The review also included the licensee's consideration and assessment of operating experience events applicable to the plant. The inspectors performed this review to ensure compliance with 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," requirements. Documents reviewed are listed in the Attachment.

b. Findings

No findings were identified.

1R11 Licensed Operator Regualification Program (71111.11)

a. Inspection Scope

.1 Resident Inspector Quarterly Review of Licensed Operator Regualification

The inspectors observed an evaluated simulator scenario administered to an operating crew conducted in accordance with the licensee's accredited regualification training program.

The inspectors assessed the following:

- licensed operator performance
- the ability of the licensee to administer the scenario and evaluate the operators
- the quality of the post-scenario critique
- simulator performance

Documents reviewed are listed in the Attachment.

.2 Resident Inspector Quarterly Review of Licensed Operator Performance

The inspectors observed licensed operator performance in the main control room on February 4, 2014, during the performance of in-service testing.

The inspectors assessed the following:

- use of plant procedures
- control board manipulations
- communications between crew members
- use and interpretation of instruments, indications, and alarms
- use of human error prevention techniques
- documentation of activities
- management and supervision

Documents reviewed are listed in the Attachment.

b. Findings

No findings were identified.

1R12 Maintenance Effectiveness (71111.12)

a. Inspection Scope

The inspectors assessed the licensee's treatment of the two issues listed below in order to verify the licensee appropriately addressed equipment problems within the scope of the maintenance rule (10 CFR 50.65, "Requirements for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants"). The inspectors reviewed procedures and records in order to evaluate the licensee's identification, assessment, and characterization of the problems as well as their corrective actions for returning the equipment to a satisfactory condition. The inspectors also interviewed system engineers and the maintenance rule coordinator to assess the accuracy of performance deficiencies and extent of condition. Documents reviewed are listed in the Attachment.

- CR 351658 – Unplanned limiting condition of operation (LCO): Intermediate Range nuclear instrument (NI) 2N-36 failure
- CR 664671 and CR 681079 – Unit 2, Chemical and volume control system (CVCS) 1208 taken to maintenance rule a(1) status

b. Findings

No findings were identified.

1R13 Maintenance Risk Assessments and Emergent Work Control (71111.13)a. Inspection Scope

The inspectors reviewed the five maintenance activities listed below to verify the licensee assessed and managed plant risk as required by 10 CFR 50.65(a)(4) and licensee procedures. The inspectors assessed the adequacy of the licensee's risk assessments and implementation of risk management actions. The inspectors also verified that the licensee was identifying and resolving problems with assessing and managing maintenance-related risk using the corrective action program. Additionally, for maintenance resulting from unforeseen situations, the inspectors assessed the effectiveness of the licensee's planning and control of emergent work activities. Documents reviewed are listed in the Attachment.

- Units 1 and 2, week of January 6, 2014, elevated Green risk condition associated with high-risk work in the high-voltage switchyard concurrent with the grid being in alert level 1A due to extreme low temperatures
- Unit 2, week of January 20, 2014, Yellow risk condition associated with the unplanned inoperability of Unit 2 "A" EDG concurrent with the high-risk work being performed in the high-voltage switchyard
- Unit 1, week of February 24, 2014, Yellow risk condition due to Unit 1 "A" NSCW pump #1 out of service (OOS) concurrent with Unit 1 "B" RHR pump OOS for scheduled maintenance outage
- Unit 1, week of March 3, 2014, Yellow risk condition due to Unit 1 "B" motor-driven AFW pump out of service for maintenance concurrent with Unit 1 "A" NSCW pump #1 out of service for motor replacement
- Unit 1, week of March 24, 2014, outage risk assessment monitoring (ORAM) Yellow outage risk condition for reactor coolant system (RCS) at mid-loop level

b. Findings

No findings were identified.

1R15 Operability Evaluations (71111.15)a. Inspection Scope

The inspectors selected the six operability determinations or functionality evaluations listed below for review based on the risk-significance of the associated components and systems. The inspectors reviewed the technical adequacy of the determinations to ensure that technical specification operability was properly justified and the components or systems remained capable of performing their design functions. To verify whether components or systems were operable, the inspectors compared the operability and design criteria in the appropriate sections of the technical specification and updated final safety analysis report to the licensee's evaluations. Where compensatory measures were required to maintain operability, the inspectors determined whether the measures in place would function as intended and were properly controlled. Additionally, the

Enclosure

inspectors reviewed a sample of corrective action documents to verify the licensee was identifying and correcting any deficiencies associated with operability evaluations. Documents reviewed are listed in the Attachment.

- CR 760774, Failure of EDG 2A Over Speed Trip Test
- CR 757479, Void detected on pipeline 1-1204-032-2
- CR 769409, Increase of active leak on casing flange connection of jacket water keep warm pump
- CR 757018, EQPM 11201R5074 for 1PV0455A not performed within required frequency
- CR 774835, ATC Nuclear Part 21 Notification for Moore Industries 535 Single Loop Controllers
- CR 775371, 2AA02-07 Closing springs slow to close

b. Findings

No findings were identified.

1R18 Plant Modifications (71111.18)

a. Inspection Scope

The inspectors verified that the two plant modifications listed below did not affect the safety functions of important safety systems. The inspectors confirmed the modifications did not degrade the design bases, licensing bases, and performance capability of risk significant structures, systems, and components. The inspectors also verified modifications performed during plant configurations involving increased risk did not place the plant in an unsafe condition. Additionally, the inspectors evaluated whether system operability and availability, configuration control, post-installation test activities, and changes to documents, such as drawings, procedures, and operator training materials, complied with licensee standards and NRC requirements. In addition, the inspectors reviewed a sample of related corrective action documents to verify the licensee was identifying and correcting any deficiencies associated with modifications. Documents reviewed are listed in the Attachment.

- SNC451183, Temporary modification to restore functionality of annunciator ALB07A01, "BA Tank 1 Hi/Lo Level"
- SNC517148, Unit 1 replacement of seal injector filter system with sub-micron filter system

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 six maintenance activities listed below to verify the work performed was completed correctly and the test activities were adequate to verify system operability and functional capability.

- Maintenance Work Order (MWO) SNC418749, “A” train NSCW pump 3 rebuild, and MWO SNC407844, “A” train NSCW pump 3 motor refurbish
- MWO SNC532915, - 21205P6002M01 (“2B” RHR pump motor) - Change oil in lower motor bearing
- MWO SNC408063, – (1A 1204SIP) – “A” train safety injection (SI) pump 3 motor 11204P6003M01 preventive maintenance (PM) and MWO SNC407988, – (1A 1204SIP) – 1HV8814 motor-operated mini-flow isolation MOV PM
- MWO SNC535924, Unit 2 accumulator tank 1 pressure channel failure
- MWO SNC557853, Unit 2 “A” motor-driven AFW pump tripped while taking to pull-to-lock
- MWO SNC560682, Unit 1 pressurizer backup heater “A” will not operate from control room

The inspectors evaluated these activities for the following:

- acceptance criteria were clear and demonstrated operational readiness
- effects of testing on the plant were adequately addressed
- test instrumentation was appropriate
- tests were performed in accordance with approved procedures
- equipment was returned to its operational status following testing
- test documentation was properly evaluated

Additionally, the inspectors reviewed a sample of corrective action documents to verify the licensee was identifying and correcting any deficiencies associated with post-maintenance testing. Documents reviewed are listed in the Attachment.

b. Findings

No findings were identified.

1R20 Refueling and Other Outage Activities (71111.20)a. Inspection Scope

For the Unit 1 refueling outage beginning March 16, 2014, through the remainder of the report period, the inspectors evaluated the following outage activities:

- outage planning
- shutdown, cooldown, and refueling
- reactor coolant system instrumentation and electrical power configuration
- reactivity and inventory control
- decay heat removal and spent fuel pool cooling system operation

The inspectors verified that the licensee:

- considered risk in developing the outage schedule
- controlled plant configuration in accordance with administrative risk reduction methodologies
- developed work schedules to manage fatigue
- developed mitigation strategies for loss of key safety functions
- adhered to operating license and technical specification requirements

Additionally, inspectors verified that safety-related and risk-significant structures, systems, and components not accessible during power operations were maintained in an operable condition. The inspectors also reviewed a sample of related corrective action documents to verify the licensee was identifying and correcting any deficiencies associated with outage activities. Documents reviewed are listed in the Attachment.

b. Findings

No findings were identified.

1R22 Surveillance Testing (71111.22)

a. Inspection Scope

The inspectors reviewed the six surveillance tests listed below and either observed the test or reviewed test results to verify testing adequately demonstrated equipment operability and met technical specification and licensee procedural requirements. The inspectors evaluated the test activities to assess for preconditioning of equipment, procedure adherence, and equipment alignment following completion of the surveillance. Additionally, the inspectors reviewed a sample of related corrective action documents to verify the licensee was identifying and correcting any deficiencies associated with surveillance testing. Documents reviewed are listed in the Attachment.

Routine Surveillance Tests

- 14658-2 Rev. 8, "SSPS Slave Relay K740 and K741 "A" Train Test Semi-automatic Switchover to Containment Sump"
- 14454A-1 Rev. 1.1, "Motor-driven AFW pump "A" operability test"
- 14808B-1 Rev. 4, "Train B Centrifugal Charging Pump and Check Valve IST and Response Time Test"
- 14850-1 Rev. 54.1, "Cold Shutdown Valve Inservice Test"

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Containment Isolation Valve

- 24349-1 Rev. 9.0, "Containment Penetration No. 49 Excess Letdown and Seal Water Leakoff Local Leak Rate Test"

In-Service Tests (IST)

- 14806C-1 Rev. 4, "Containment Spray Pump and Check Valve Refueling Comprehensive Full Flow Inservice Test"

b. Findings

No findings were identified.

Cornerstone: Emergency Preparedness

1EP6 Drill Evaluation (71114.06)

a. Inspection Scope

The inspectors observed the emergency preparedness drill conducted on March 12, 2014. The inspectors observed licensee activities in the Burke County Office Complex during a hostile action based tabletop exercise that included several local and state agencies from both Georgia and South Carolina. The inspectors evaluated implementation of the emergency plan, including event classification, notification, and protective action recommendations. The inspectors evaluated the licensee's performance against criteria established in the licensee's procedures. Additionally, the inspectors attended the post-exercise critique to assess the licensee's effectiveness in identifying emergency preparedness weaknesses and verified the identified weaknesses were entered in the corrective action program.

b. Findings

No findings were identified.

4. OTHER ACTIVITIES

4OA1 Performance Indicator Verification (71151)

a. Inspection Scope

The inspectors reviewed a sample of the performance indicator (PI) data for Unit 1 and Unit 2, submitted by the licensee, for the PIs listed below. The inspectors reviewed plant records compiled between January 2013, and December 2013 to verify the accuracy and completeness of the data reported for the station. The inspectors verified that the PI data complied with guidance contained in Nuclear Energy Institute 99-02, "Regulatory Assessment Performance Indicator Guideline," and licensee procedures. The inspectors

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also confirmed the PIs were calculated correctly. In addition, the inspectors reviewed a sample of related corrective action documents to verify the licensee was identifying and correcting any deficiencies associated with PI data. Documents reviewed are listed in the Attachment.

Cornerstone: Initiating Events

- unplanned scrams per 7000 critical hours
- unplanned power changes per 7000 critical hours
- unplanned scrams with complications

b. Findings

No findings were identified.

4OA2 Identification and Resolution of Problems (71152)

.1 Routine Review

The inspectors screened items entered into the licensee's corrective action program in order to identify repetitive equipment failures or specific human performance issues for follow-up. The inspectors reviewed condition reports, attended screening meetings, or accessed the licensee's computerized corrective action database.

.2 Annual Follow-up of Selected Issues

a. Inspection Scope

The inspectors conducted a detailed review of condition reports CR 737334, "Unit 2 safety injection accumulator tank #1 pressure channel failed high," and CR 783219, "Motor-driven AFW pump "A" tripped while taking to pull-to-lock." The inspectors evaluated the following attributes of the licensee's actions:

- complete and accurate identification of the problem in a timely manner
- evaluation and disposition of operability and reportability issues
- consideration of extent of condition, generic implications, common cause, and previous occurrences
- classification and prioritization of the problem
- identification of root and contributing causes of the problem
- identification of any additional condition reports
- completion of corrective actions in a timely manner

Documents reviewed are listed in the Attachment.

b. Findings and Observations

No findings were identified.

Enclosure

4OA3 Event Follow-up.1 (Closed) Licensee Event Report (LER) 05000424/2012-005-00: Main Steam Isolation Valve Failures

On October 8, 2013, with Unit 1 in Mode 2, the operators began preparations for power ascension. At 1616, as a main feedwater pump was being placed online, the control room operators noted a divergence in the RCS loop differential temperatures (ΔT s), steam pressures, and steam flows between loops 1 & 4 and loops 2 & 3. Loops 1 & 4 showed increasing loop ΔT s, lowering steam pressure, and some minimal steam flow, while loops 2 and 3 showed no loop ΔT , increasing steam pressures (to the point of lifting the loop 2 and 3 atmospheric relief valves), and no steam flow. The Main Control Board hand switches indicated that all MSIVs and associated bypass valves were open. The operators identified the potential impact to the core neutron flux and stopped power ascension. Following discussions with plant management and engineering, the operators placed the plant in a safe condition by inserting a manual trip of the reactor at 2155. The licensee subsequently assembled an issue response team (IRT) and a root cause team to investigate the cause of the diverging indications and to determine the required corrective actions. The root cause team determined that the root cause of the MSIV stem failures was due to temperature aging embrittlement of the stem material. The enforcement aspects associated with this event were documented in NRC integrated inspection report 05000424,425/2012005 (Section 4OA2). No other findings were identified. This LER is closed.

.2 (Closed) Licensee Event Report 05000424/2013-001-00: Failure to Comply with Technical Specification LCO 3.8.4

On November 27, 2013, an internal wiring discrepancy was discovered on the Unit 1 Class 1E battery charger 1AD1CB (one of two redundant battery chargers on "A" train) following the trip of the battery charger input breaker. The wiring discrepancy prevented the charger from performing all required functions of Technical Specification LCO 3.8.4, "DC Sources - Operating," and rendered it inoperable. The LCO requires, in part, one of two redundant battery chargers to be operable. Subsequent review of battery charger maintenance activities determined that on September 30, 2013 the remaining redundant "A" train battery charger (1AD1CA) was removed from service for maintenance activities for approximately 14.5 hours. This resulted in both train "A" battery chargers being inoperable simultaneously, which is condition that requires restoration of the inoperable direct-current (DC) source (i.e. train) within two hours (LCO 3.8.4 Condition C). Although the degraded charger (1AD1CB) was able to maintain battery terminal voltage within limits under minimal loading condition, the DC source was inoperable for a time greater than allowed by technical specification. The inspectors reviewed the LER, the associated condition report and apparent cause determination, and subsequent action items. The enforcement aspects associated with this event were documented in NRC integrated inspection report 05000424/2013005 (Section 1R19). No other findings were identified. This LER is closed.

Enclosure

.3 (Closed) Licensee Event Report 05000425/2013-002: Automatic Unit 2 Reactor Trip due to loss of Generator Excitation

On October 19, 2013, while Unit 2 was operating in Mode 1 at 100 percent power, the main generator excitation system experienced a failure that tripped the main generator and subsequently tripped the turbine and reactor. The reactor trip system, the engineered safety features actuation system, feedwater and auxiliary feedwater systems actuated as designed and the plant was stabilized in Mode 3. The inspectors reviewed the LER, the associated condition report and apparent cause determination, and subsequent action items. No findings or violations of NRC requirements were identified. This LER is closed.

.4 (Closed) Licensee Event Report 05000425/2013-003: Manual Reactor Trip due to Lowering Condenser Vacuum

On October 22, 2013, while Unit 2 was operating in Mode 1 at 25 percent power, the unit was manually tripped due to lowering condenser vacuum. At the time of the reactor trip, maintenance activities were in progress on the "B" main feedwater pump turbine. Prior to the work commencing, the operators discussed how the maintenance work on the turbine could potentially impact condenser pressure. As a precaution, the operators established operating limits in case condenser vacuum was lost. As the lift of the turbine steam chest was initiated, condenser vacuum began lowering and maintenance personnel were directed to lower the steam chest back on the turbine. However, condenser vacuum continued to decrease, and as it approached the pre-determined operational limit of 23 inches of mercury, the shift supervisor directed a manual reactor trip. The reactor trip system, feedwater and auxiliary feedwater systems actuated as designed and the plant was stabilized in Mode 3. The inspectors reviewed the LER, the associated condition report and apparent cause determination, and subsequent action items. No findings or violations of NRC requirements were identified. This LER is closed.

4OA5 Other Activities

.1 Institute of Nuclear Power Operations (INPO) Report Review

In accordance with Executive Director of Operations Procedure 0220, "Coordination with the Institute of Nuclear Power Operations," the inspectors reviewed the most recent INPO evaluation and accreditation reports dated February 10, 2014, to determine if those reports identified safety or training issues not previously identified by NRC evaluations. The report contained no safety issues that were not already known by the NRC.

b. Findings and Observations

No findings were identified.

Enclosure

.2 Cross-Cutting Aspect Common Language Initiative Transition

The table below provides a cross-reference from the 2013 and earlier findings and associated cross-cutting aspects to the new cross-cutting aspects resulting from the common language initiative. These aspects and any others identified since January 2014 will be evaluated for cross-cutting themes and potential substantive cross-cutting issues in accordance with IMC 0305 starting with the 2014 mid-cycle assessment review.

Finding	Old Cross-Cutting Aspect	New Cross-Cutting Aspect
05000424/2013005-01	P.1(c)	P.2
05000424,425/2013007-01	P.1(c)	P.2
05000424,425/2013403-01	P.1(a)	P.1
05000424,425/2013403-02	P.1(d)	P.3

4OA6 Meetings, Including Exit

.1 Exit Meeting

On April 22, 2014 the resident inspectors presented the inspection results to Mr. T. Tynan and other members of the licensee's staff. The inspectors confirmed that proprietary information was not provided or examined during the inspection.

ATTACHMENT: SUPPLEMENTAL INFORMATION

Enclosure

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee personnel:

R. Barringer, Security Manager
R. Collins, Chemistry Manager
G. Gunn, Licensing Supervisor
R. Hons, Training Manager
M. Johnson, Health Physics Manager
F. Pournia, Engineering Director
J. Robinson, Engineering Programs Manager
G. Saxon, Plant Manager
J. Thomas, Operations Director
T. Thompson, Systems Engineering Manager
T. Tynan, Site Vice-President
K. Walden, Licensing Engineer
S. Waldrup, Licensing 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

Closed

05000424/2012-005-00	LER	Main Steam Isolation Valve Failures (Section 4OA3.1)
05000424/2013-001-00	LER	Failure to Comply with Technical Specification LCO 3.8.4 (Section 4OA3.2)
05000425/2013-002-00	LER	Automatic Unit 2 Reactor Trip due to loss of Generator Excitation (Section 4OA3.3)
05000425/2013-003-00	LER	Manual Reactor Trip due to Lowering Condenser Vacuum (Section 4OA3.4)

LIST OF DOCUMENTS REVIEWED

Section 1R01: Adverse Weather Protection

Procedures

11877-1 Rev. 25, Cold Weather Checklist, Unit 1
11877-2 Rev. 21, Cold Weather Checklist, Unit 2

Section 1R04: Equipment Alignment

Procedures

11011-2, Rev. 15.1, Residual Heat Removal System Alignment
11115-1 Rev. 10.2, Containment Spray System Alignment
11150-2 Rev. 23.3, Nuclear Service Cooling Water System Alignment
11610-1, Rev. 20.2, Auxiliary Feedwater System Alignment
14801B-2 Rev. 4.1, Train B NSCW Transfer Pump Inservice Test

Drawings

1X4DB131 Rev. 35.0, P&I Diagram Containment Spray System, System No. 1206
1X4DB161-1, Ver. 45.0, P&I Diagram Fire Protection – Auxiliary Feedwater System Condensate Storage & Degasifier System, System 1302
1X4DB161-2, Ver. 28.0, P&I Diagram Fire Protection – Auxiliary Feedwater System, System 1302
1X4DB161-3, Ver. 42.0, P&I Diagram Fire Protection – Auxiliary Feedwater System, System 1305
2X4DB122 Rev. 53.0, P&I Diagram Residual Heat Removal, System No. 1205
2X4DB133-2 Rev. 53, P&I Diagram Nuclear Service Cooling Water System, System No. 1202
2X4DB134 Rev. 31, P&I Diagram Nuclear Service Cooling Water System, System No. 1202
2X4DB135-2 Rev. 29, P&I Diagram Nuclear Service Cooling Water System, System No. 1202

System Health Reports

Vogtle Containment Spray System No. 1206 4th QTR 2013

Section 1R05: Fire Protection

Procedures

17103A-C Rev. 39.2, Annunciator Response Procedures for the Fire Alarm Computer
92000-C Rev. 27.0, Fire Protection Program
92005-C Rev. 31, Fire Response Procedure
92704-2 Rev. 2.0, Zone 4 – Auxiliary Building – Level D, Containment Spray Pump “A” Fire Fighting Preplan
92705-2 Rev.3.0, Zone 5 – Auxiliary Building – Level D, Containment Spray Pump “B” Fire Fighting Preplan
92709-2 Rev.2.2, Zone 9 – Auxiliary Building – Level D, Fire Fighting Preplan
92710-2 Rev.2.2, Zone 10 – Auxiliary Building – Level D, Fire Fighting Preplan
92787-1 Rev. 2.2, Zone 87 – Control Building – Level A Fire Fighting Preplan
92788-1 Rev. 2.2, Zone 88 – Control Building – Level A Fire Fighting Preplan
92789-1 Rev. 2.1, Zone 89 – Control Building – Level A Fire Fighting Preplan
92790-1 Rev. 2.2, Zone 90 – Control Building – Level A Fire Fighting Preplan
92791-2 Rev. 3.2, Zone 91 – Control Building – Level A Fire Fighting Preplan
92792-2 Rev. 3.1, Zone 92 – Control Building – Level A Fire Fighting Preplan
92793-1 Rev. 3.2, Zone 93 – Control Building – Level A Fire Fighting Preplan

Enclosure

92797-2 Rev. 3.0, Zone 97 – Control Building – Level A Fire Fighting Preplan
 92798-2 Rev. 3.0, Zone 98 – Control Building – Level A Fire Fighting Preplan
 92802-1 Rev. 1.2, Zone 102 – Control Building – Level A Fire Fighting Preplan
 92803-2 Rev. 2.2, Zone 103 – Control Building – Level A Fire Fighting Preplan
 92840A-1 Rev. 4, Zone 140A – Containment Building – Levels A, B, 1 and 3 East Fire Fighting Preplan
 92840B-1 Rev. 5, Zone 140B – Containment Building – Levels A,B,1,2 and 3 Fire Fighting Preplan
 92840C-1 Rev. 4.0, Zone 140C – Containment Building – Levels A,B,1 and 3 Steam Generator Compartment Fire Fighting Preplan
 92840E-1 Rev. 1.0, Zone 140E – Containment Building – Levels A, 1 and 2 Fire Fighting Preplan
 92858-1 Rev. 2.2, Zone 158 – Control Building – Level A Fire Fighting Preplan
 92859-1 Rev. 2.2, Zone 159 – Control Building – Level A Fire Fighting Preplan
 92862-2 Rev. 1.1, Zone 162 – Diesel Generator Building Fire Fighting Preplan
 92864-2 Rev. 0.2, Zone 164 – Diesel Generator Building – Train B DFO Day Tank Fire Fighting Preplan

Other

Drill scenario 2014-Q1-01, Fire in room B52

Section 1R07: Heat Sink Performance

Procedures

83309-C Rev. 7, Safety-Related Heat Exchanger Inspection
 NMP-ES-012-GL01 Rev. 3.0, Heat Exchanger Program, Heat Exchanger Inspection, Testing and Condition Assessment

Condition Reports

778805, Unexpected FME Discovered

Work Orders

SNC408284 – B TRN CCP 3 Motor – Clean and Inspect

Section 1R08: Inservice Inspection Activities

Procedures

LTR-SGMP-12-78, Evaluation of Foreign Objects in the Secondary Side of the Vogtle Unit 1 Steam Generators – Fall 2012 1R17 Outage, 10/01/12
 MRS 2.4.2 GPC-3, Steam Generator Eddy Current Data Analysis Techniques for Vogtle Units 1 and 2, Rev. 18
 MRS 2.4.2 GPC-37, Steam Generator Eddy Current Data Analysis Techniques for Vogtle Units 1 & 2, Rev. 18
 MRS-TRC-2222, Southern Company Vogtle Unit 1 Use of Qualified Techniques 1R18 Refueling Outage, 03/2014
 NMP-AP-001-F02, Remote Examination and Removal of Foreign Objects for Steam Generator Secondary Side - Vogtle, Rev. 04
 NMP-ES-004-GL01, Steam Generator Program Strategic Plan, Rev. 12
 NMP-ES-019, Boric Acid Corrosion Control Program, Version 10.0
 NMP-ES-019-001, Boric Acid Corrosion Control Program Implementation, Version 9.0

NMP-ES-019-004, Boric Acid Corrosion Control Program – Corrosion Assessment, Version 3.0
 NMP-ES-024-101, Reference System for Marking, Measuring, and Recording, Version 2.1
 NMP-ES-024-203, Visual Examination (VT-3, Version 5.0
 NMP-ES-024-301, Liquid Penetrant Examination Color Contrast and Fluorescent, Version 11.0
 NMP-ES-024-501, PDI Generic Procedure for the Ultrasonic Examination of Austenitic Pipe Welds (Appendix VIII), Version 5.0
 PDI-UT-2, Generic Procedure for the Ultrasonic Examination of Austenitic Pipe Welds, Revision F, dated March 8, 2013
 Procedure 14864-1, Containment General Leak Inspection, Version 2.6
 SG-SGMP-12-16, Vogtle 1R17 Steam Generator Condition Monitoring and Operational Assessment, Rev. 0
 SG-SGMP-13-26, Vogtle 1R18 Degradation Assessment, Rev. 0

Corrective Actions

Condition Report (CR) 653117, Documentation Purposes only, Lack of Funding for ISI 1R18 Outage
 CR 656061, Gap in standards found in maintenance welding shop
 CR 692556, Additional welding performed after final weld inspection
 CR 694887, Replacing ASME III Class 1 Snubbers
 CR 729534, Alternative to ASME Section XI requirements needed for the examination of reactor vessel head flange
 CR792165, Foreign object found in SG 4
 Technical Evaluation 575854, Check In Self-Assessment Plan and Report, 2013 Plant Vogtle Inservice Inspection Program Assessment
 Technical Evaluation 577428, Boric Acid Corrosion Control Program Self-Assessment
 Technical Evaluation 653875, Documentation Purposes only, Lack of Funding for ISI 1R18 Outage (Associated with CR 653117)
 Technical Evaluation 694054, Additional welding performed after final weld inspection (Associated with CR 692556)
 Technical Evaluation 697243, Replacing ASME III Class 1 Snubbers (Associated with CR 694887)
 Technical Evaluation 697973, Check In Self-Assessment Plan and Report, ISI Assessment for NRC Routine Baseline Inspections in the 2014 Refueling Outages
 Technical Evaluation 732143, Alternative to ASME Section XI requirements needed for the examination of reactor vessel head flange (Associated with CR 729534)
 Technical Evaluation: 656575, Track corrective actions for NMP-FLS-017 Violations (Associated with CR 656061)

Other

Certificate of Calibration for IR Thermometer #30006634
 Certificate of Calibration for IR Thermometer #30006637
 Certificate of Certification for Spotcheck Developer, Type SKD-S2, Batch 11H07K
 Certificate of Certification for Spotcheck Penetrant, Type SKL-SP1, Batch 04A06K
 Certificate of Certification for Spotcheck Penetrant, Type SKL-SP, Batch 97K07K
 Certificate of Certification for Spotcheck SKC-S, Batch 13A01K
 Certificate of Compliance for Ultrasonic Reference Blocks by Applied Test Systems, Inc., ATS Order #G03-1246, dated August 13, 2003
 Corrosion Assessment 1204-2013-006 (Associated with CR 643871)

Corrosion Assessment 1208-2012-001 (Associated with CR 502004)
 Corrosion Assessment 1208-2012-002 (Associated with CRs 530116 and 555387)
 Krautkramer Ultrasonic Systems Transducer Certification, dated August 12, 2003
 NDE Personnel Certifications: D. Anderson, C. Lewis, A. Wrubleski, M. Grell, A. Morgan,
 T. Huhe, T. Jackson
 NMP-GM-003-F04, Self-Assessment Final Report, Rev. 01
 Pipe Support Drawing V1-1202-030-H003, Revision 4
 Report S14V1L003, Ultrasonic Instrument Linearity, dated March 17, 2014

Section 1R11: Licensed Operator Regualification Program

Procedures

14609-1 Rev. 21, SSPS Slave Relay K601 Train B Test Safety Injection
 14615-1 Rev. 10, SSPS Slave Relay K608 Train B Test Safety Injection
 14808B-1 Rev. 4, Train B Centrifugal Charging Pump and Check Valve IST and Response Time Test

Other

V-RQ-SE-14201 Rev. 1.0, Simulator Exercise Guide: Loss of Secondary Heat Sink

Section 1R12: Maintenance Rule Effectiveness

Condition Reports and Action Items

351658 – Unplanned LCO: Intermediate Range NI 2N-36 failure
 664671 – Unit 2 system 1208 taken to a(1) status
 637701 – Unit 2 system 1602 taken to a(1) status during 04/26/13 MREP

Work Orders

SNC331852 – Unplanned LCO: Intermediate Range NI 2N-36 failure

Other Records

TE 285893 – Unplanned LCO: Intermediate Range NI 2N-36 failure
 TE 298047 – 2R15 Outage Lessons Learned – NIS ILRT
 TE 638797 – Unit 2 system 1602 taken to a(1) status during 04/26/13 MREP

Section 1R15: Operability Evaluations

Condition Reports

757018, EQPM 11201R5074 for 1PV0455A not performed within required frequency
 757479, Void detected on line 1-1204-032-2
 760774, Failure of EDG 2A Overspeed Trip Test
 769409, Increase of active leak on casing flange connection of jacket water keep warm pump
 774835, ATC Nuclear Part 21 Notification for Moore Industries 535 Single Loop Controllers
 775371, 2AA02-07 Closing springs slow to close (Unit 2 CCW Pump #3)

Other Records

TE 757162, IDO – Operability of 1PV0455A
 TE 757732, IDO – Void detected upstream of valve 1-1204-U4-143
 TE 760258, IDO – Operability of 2A EDG
 TE 769426, IDO – Increase of active leak on casing flange connection of jacket water keep warm pump

TE 775504, IDO – Operability of 1TIC12124/5 and 2TIC12124/5
 TE 775556, IDO – Operability of Unit 2 CCW Pump #3

Procedures

50085-C Rev. 11, Gas Accumulation Monitoring and Trending

Section 1R18: Plant Modifications

Procedures

NMP-AD-010 Rev. 8.0, 10 CFR 50.59 Screening/Evaluation
 NMP-ES-054-001 Rev. 2.0, Temporary Modification Processing

Work Orders

SNC451183 – Temp Mod to restore functionality of annunciator ALB07A01, “BA Tank 1 Hi/Lo Level”
 SNC517148 – U1 replacement of seal injector filter system with sub-micron filter system

Other

CR557426 – Request for a TM to clear ALB07A01, “BA Tank 1 Hi/Lo Level”
 TE558696 – Request for a TM to clear ALB07A01, “BA Tank 1 Hi/Lo Level”

Section 1R19: Post Maintenance Testing

Procedures

14804A-1 Rev. 4.1, Safety Injection Pump A Inservice and Response Time Test
 14805B-2 Rev. 3.2, Train B Residual Heat Removal Pump IST and Response Time Test
 14825-1 Rev. 98, Quarterly Inservice Valve Test
 22402-C Rev. 29, Rosemount Transmitter Removal and Installation
 24775-2 Rev.16, Accumulator Tank #1 Pressure 2P-961 Channel Calibration
 25088-C Rev. 21.3, Hand Switch Replacement
 SP-ENG-2014-01 Rev. 1.0, Unit 1 Train A NSCW Pump 3 Functional Test

Work Orders

SNC407844 – A Train NSCW pump 3 motor – Refurbish motor
 SNC407988 – (1A 1204SIP) – 1HV8814 MO MINIFLO ISO MOV PM
 SNC408063 – (1A 1204SIP) – A TRN SI PMP 3 Motor 11204P6003M01 PM
 SNC418749 – A Train NSCW pump 3 – Rebuild
 SNC532915 – 21205P6002M01 (2B RHR Pump Motor) – Change oil in lower motor bearing
 SNC535924 – Accumulator tank 1 pressure channel failure
 SNC557853 – Unit 2A MDAFW pump tripped while taking to pull-to-lock
 SNC560682 – Unit 1 pressurizer backup heater A will not operate from control room

Other Records

CR 730819 RHRS Pump 2B motor, lower bearing oil sample has elevated particle counts
 CR783219, Unit 2 MDAFW pump tripped while taking to pull-to-lock
 TE731411, TE for maintenance rule evaluation for unexpected control room annunciator
 Unit 1 operator logs for 1/15/14
 Unit 1 operator logs for 2/18/14
 Unit 2 operator logs for 1/31/14

Section 1R22: Surveillance Testing

Procedures

14454A-1 Rev. 1.1, Motor Driven Auxiliary Feedwater Pump A Operability Test
 14609-1 Rev. 21, SSPS Slave Relay K601 Train B Test Safety Injection
 14615-1 Rev. 10, SSPS Slave Relay K608 Train B Test Safety Injection
 14658-2 Rev. 8, SSPS Slave Relay K740 and K741 Train A Test Semi-Automatic Switchover to Containment Sump
 14806C-1 Rev. 4, Containment Spray Pump and Check Valve Refueling Comprehensive Full Flow Inservice Test
 14808B-1 Rev. 4, Train B Centrifugal Charging Pump and Check Valve IST and Response Time Test
 14850-1 Rev. 54.1, Cold Shutdown Valve Inservice Test
 24349-1 Rev. 9.0, Containment Penetration No. 49 Excess Letdown and Seal Water Leakoff Local Leak Rate Test

Work Orders

SNC503654 – 14454 MDAFW Pump A Operability Test

Section 4OA1: Performance Indicator (PI) Verification

Procedures

00163-C, Rev. 14.6, NRC Performance Indicator and Monthly Operating Report Preparation and Submittal

Section 4OA2: Identification and Resolution of Problems

Condition Reports

783219 – MDAFW pump A tripped while taking to PTL
 737334 – Unit 2 safety injection accumulator tank #1 pressure channel failed high

Other Records

TE 783723 – TE for MREVAL MDAFW pump A tripped while taking to PTL
 Unit 2 operator logs for 3/6/14

Section 4OA3: Event Follow-up

Procedures/Calculations/Engineering Documents

14850-1 Rev. 54.1, Cold Shutdown Valve Inservice Test
 SNC534699 – Both 1AD1CA and 1AD1CB out of service at same time