



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

July 31, 2014

Cheryl A. Gayheart
Vice President - Farley
Southern Nuclear Operating Company, Inc.
7388 North State Highway 95
Columbia, AL 36319

**SUBJECT: JOSEPH M. FARLEY NUCLEAR PLANT - NRC INTEGRATED INSPECTION
REPORT 05000348/2014003; AND 05000364/2014003**

Dear Ms. Gayheart:

On June 30, 2014, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Joseph M. Farley Nuclear Plant, Units 1 and 2. On July 15, 2014, the NRC inspectors discussed the results of this inspection with Mr. J.J. Hutto and other members of your staff. Inspectors documented the results of this inspection in the enclosed inspection report.

No NRC-identified or self-revealing findings were identified during this inspection.

However, inspectors documented two licensee-identified violations which were determined to be of very low safety significance in this report. The NRC is treating these violations as non-cited violations (NCVs) consistent with Section 2.3.2.a of the Enforcement Policy.

If you contest the violations or significance of these NCVs, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington DC 20555-0001; with copies to the Regional Administrator, Region II; the Director, Office of Enforcement, U.S Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC resident inspector at Joseph M. Farley Nuclear Plant.

C. Gayheart

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In accordance with Title 10 of the Code of Federal Regulations 2.390, "Public Inspections, Exemptions, Requests for Withholding," of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response (if any) will be available electronically for public inspection in the NRC's Public Document Room or from the Publicly Available Records (PARS) component of NRC's Agencywide Document Access and Management System (ADAMS). ADAMS is accessible from the NRC website 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.: 50-348, 50-364

License No.: NPF-2, NPF-8

Enclosure: Inspection Report 05000348/2014003;
and 05000364/2014003
w/Attachment: Supplemental Information

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C. Gayheart

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Letter to C. A. Gayheart from Frank Ehrhardt dated July 31, 2014

SUBJECT: JOSEPH M. FARLEY NUCLEAR PLANT - NRC INTEGRATED INSPECTION
REPORT 05000348/2014003; AND 05000364/2014003

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U.S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket Nos.: 05000348, 05000364

License Nos.: NPF-2, NPF-8

Report No.: 05000348/2014003; and 05000364/2014003

Licensee: Southern Nuclear Operating Company, Inc.

Facility: Joseph M. Farley Nuclear Plant, Units 1 and 2

Location: Columbia, AL

Dates: April 1, 2014, through June 30, 2014

Inspectors: P. Niebaum, Senior Resident Inspector
J. Sowa, Resident Inspector
T. Lighty, Reactor Inspector (1R12)
T. Stephen, Browns Ferry Resident Inspector (1R05, 1R06)
P. Capehart, Senior Operations Examiner (1R11.3, 4OA2.3)
G. Laska, Senior Operations Examiner (1R11.3, 4OA2.3)

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

Enclosure

SUMMARY OF FINDINGS

IR 05000348/2014003; and 05000364/2014003; April 1, 2014, through June 30, 2014; Joseph M. Farley Nuclear Plant, Units 1 and 2, Integrated Report

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

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

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REPORT DETAILS

Summary of Plant Status

Unit 1 maintained approximately 100 percent rated thermal power (RTP) during the report period.

Unit 2 started the report period at approximately 100 percent RTP. On May 16, operators decreased power to 12 percent and opened the main generator output breaker to support a repair activity in the 500kV high voltage switchyard. On May 18, operators raised power and synchronized the main generator to the grid. Unit 2 reached 100 percent RTP on May 19 and maintained approximately 100 percent for the remainder of the report period.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity

1R01 Adverse Weather Protection (71111.01)

a. Inspection Scope

.1 Summer Readiness of Offsite and Alternate AC Power System

The inspectors reviewed the licensee's procedures for operation and continued availability of offsite and onsite alternate AC power systems. The inspectors also reviewed the communications protocols between the transmission system operator and the licensee to verify that the appropriate information is exchanged when issues arise that could affect the offsite power system.

The inspectors reviewed the material condition of offsite and onsite alternate AC power systems (including switchyard and transformers) by performing a walkdown of the switchyard. The inspectors reviewed outstanding work orders and assessed corrective actions for any degraded conditions that impacted plant risk or required compensatory actions. Documents reviewed are listed in the Attachment.

.2 Impending Adverse Weather Conditions

The inspectors reviewed the licensee's preparations to protect risk-significant systems from severe storms and tornados expected on April 30, 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 severe storms and tornados. 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

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also verified that 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

Complete Walkdown

The inspectors verified the alignment of the Unit 1 high head safety injection 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. The inspectors reviewed records related to the system outstanding design issues, maintenance work requests, and deficiencies. 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.

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 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 1 "A" train residual heat removal (RHR) system
- Unit 1 and Unit 2 "1C" emergency diesel generator (EDG)
- Unit 1 "B" train DC switchgear

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
- 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 six fire areas to assess material condition and operational status of fire protection equipment. Documents reviewed are listed in the Attachment.

- Unit 1, "1C" EDG room, fire zone 60
- Unit 1, "B" train DC switchgear, fire zone 19
- Unit 1, charging pump rooms, fire zone 5
- Unit 1, RHR heat exchanger room 128, fire area 1-1
- Unit 1, "A" RHR pump room 129, fire area 1-1
- Unit 1, "B" RHR pump room 131, fire area 1-1

Annual Inspection

The inspectors evaluated the licensee's fire brigade performance during a drill on April 9, 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 fire-fighting 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

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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.

1R06 Flood Protection Measures (71111.06)

a. Inspection Scope

.1 Internal Flooding

The inspectors reviewed related flood analysis documents and walked down the areas listed below that contain risk-significant structures, systems, and components susceptible to flooding. The inspectors verified plant design features and plant procedures for flood mitigation were consistent with design requirements and internal flooding analysis assumptions. The inspectors also assessed the condition of flood protection barriers and drain systems. In addition, the inspectors verified the licensee was identifying and properly addressing issues using the corrective action program. Documents reviewed are listed in the Attachment.

- Unit 1 auxiliary building, RHR heat exchanger and pump rooms, rooms 128, 129 and 131

.2 Underground Cables

The inspectors reviewed related flood analysis documents and inspected the areas listed below containing cables whose failure could disable risk-significant equipment. The inspector directly observed the condition of cables and cable support structures and, as applicable, verified that dewatering devices and drainage systems were functioning properly. In addition, the inspectors verified the licensee was identifying and properly addressing issues using the corrective action program. Documents reviewed are listed in the Attachment.

- Unit 1, pull box A1M43
- Unit 2, pull box A2M43

b. Findings

No findings were identified.

1R11 Licensed Operator Requalification Program (71111.11)

a. Inspection Scope:

.1 Resident Inspector Quarterly Review of Licensed Operator Requalification

The inspectors observed an evaluated simulator scenario administered to an operating crew conducted in accordance with the licensee's accredited requalification training program on May 28, 2014.

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 during the Unit 2 load reduction to take the main generator offline on May 17, 2014.

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.

.3 Licensed Operator Requalification

The inspectors reviewed the facility operating history and associated documents in preparation for this inspection. During the week of March 10-14, 2014, the inspectors reviewed documentation, interviewed licensee personnel, and observed the administration of operating tests associated with the licensee's operator requalification program. Inspection activities were completed during the week of June 23 – 27, 2014, when the inspectors completed a review of the weekly written exams. Each of the activities performed by the inspectors was done to assess the effectiveness of the facility licensee in implementing requalification requirements identified in 10 CFR Part 55, "Operators' Licenses." The evaluations were also performed to determine if the licensee

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effectively implemented operator requalification guidelines established in NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," and Inspection Procedure 71111.11, "Licensed Operator Requalification Program." The inspectors also evaluated the licensee's simulation facility for adequacy for use in operator licensing examinations using ANSI/ANS-3.5-1985, "American National Standard for Nuclear Power Plant Simulators for Use in Operator Training and Examination." The inspectors observed two shift crews during the performance of the operating tests. Documentation reviewed included written examinations, job performance measures (JPMs), simulator scenarios, licensee procedures, on-shift records, simulator modification request records, simulator performance test records, operator feedback records, licensed operator qualification records, remediation plans, watchstanding records, and medical records. The records were inspected using the criteria listed in Inspection Procedure 71111.11. Documents reviewed during the inspection 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 three issues listed below 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 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.

- "1A" penetration room filtration system (a)(1) plan for exceeding reliability criteria
- Unit 1 service water pump exhaust fan OOS (QSW41C505E-A)
- Farley Maintenance Rule (a)(3) Assessment Plan, November 2013

b. Findings

No findings were identified.

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

a. Inspection Scope

The inspectors reviewed the three maintenance activities listed below to verify that 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

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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, April 24, 2014, high voltage switchyard work and switching operations
- Unit 2, April 30, 2014, "2B" motor driven auxiliary feedwater (AFW) pump equipment outage for preventive maintenance
- Units 1 and 2, May 5, 2014, high voltage switchyard work and "1-2A" EDG surveillance testing

b. Findings

No findings were identified.

1R15 Operability Determinations and Functionality Assessments (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 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.

- Unit 1, steam generator flow transmitter calibration procedures do not agree with scaling document, condition report (CR) 795798
- Unit 2, steam flow scaling document did not agree with the steam generator loop calibration procedures, CR 798185
- Unit 1, thermal barrier high flow alarm received when swapping on service component cooling water (CCW) heat exchangers, CR 801639
- Unit 2, "2A" CCW pump mechanical seal leakage has increased to 2 gallons per hour, CR 805835
- Unit 1, past operability evaluation of unsecured floor drain cover in "1B" motor driven AFW pump room, CR 749185
- Unit 2, power range nuclear instrument NI-42 diverging from other channels, CR 820984

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.

- SNC565084, Corrective maintenance on the Unit 2 turbine driven AFW pump
- SNC564824, Corrective maintenance to rescale Unit 1 steam flow transmitter FT-484 bistable trip setpoints
- SNC562727, Corrective maintenance to service water battery charger number 3
- SNC568235, Corrective maintenance to recalibrate Unit 2 nuclear instrument summing amp voltage
- FNP-1-STP-124.0A, "A-Train Penetration Room Filtration Performance Test"
- SNC574806, Corrective maintenance to "2C" atmospheric relief valve

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.

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,

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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

- FNP-2-STP-80.1, "Diesel Generator 2B Operability Test", Ver. 53.0
- FNP-2-STP-213.22, "Steam Generator 2B Q2C22FT0485 Loop Calibration and Operational Test", Ver. 53.0
- FNP-2-STP-7.0, "Quadrant Power Tilt Ratio Calculation", Ver. 20.0

In-Service Tests (IST)

- FNP-0-STP-24.17, "Diesel Generator Service Water Valves Remote Position Indication Inservice Test", Ver. 7.1

Reactor Coolant System Leak Detection

- FNP-1-STP-9.0, "RCS Leakage Test", Ver. 51.1
- FNP-2-STP-9.0, "RCS Leakage Test", Ver. 47.1

b. Findings

No findings were identified.

Cornerstone: Emergency Preparedness (EP)

1EP6 Drill Evaluation (71114.06)

a. Inspection Scope

The inspectors observed the emergency preparedness drill conducted on April 23, 2014. The inspectors observed licensee activities in the simulator and/or technical support center to evaluate 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. Documents reviewed are listed in the Attachment.

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, submitted by the licensee, for the Unit 1 and Unit 2 PIs listed below. The inspectors reviewed plant records compiled between March 2013 and March 2014 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 verified the accuracy of reported data that were used to calculate the value of each PI. 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 with complications

Cornerstone: Mitigating Systems

- residual heat removal system
- heat removal system

b. Findings

No findings were identified.

4OA2 Problem Identification and Resolution (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 followup. The inspectors reviewed condition reports, attended screening meetings, or accessed the licensee's computerized corrective action database.

.2 Semi-Annual Trend Review

a. Inspection Scope

The inspectors reviewed issues entered in the licensee's corrective action program and associated documents to identify trends that could indicate the existence of a more significant safety issue. The inspectors focused their review on operations risk assessments and control of transient combustibles in safety related areas, but also considered the results of inspector daily condition report screenings, licensee trending efforts, and licensee human performance results. The review nominally considered the 6-month period of January 2014 through June 2014, although some examples extended

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beyond those dates when the scope of the trend warranted. The inspectors compared their results with the licensee's analysis of trends. Additionally, the inspectors reviewed the adequacy of corrective actions associated with a sample of the issues identified in the licensee's trend reports. The inspectors also reviewed corrective action documents that were processed by the licensee to identify potential adverse trends in the condition of structures, systems, and/or components as evidenced by acceptance of long-standing non-conforming or degraded conditions. Documents reviewed are listed in the Attachment.

b. Findings and Observations

No findings were identified.

.3 Annual Followup of Selected Issues

a. Inspection Scope

The inspectors conducted a detailed review of the following condition report and corrective action report (CAR):

- CR 770192, Unexpected conditions encountered during JPM exam administration to licensed operator continuing training (LOCT)
- CAR 209163, Common cause evaluation for four traditional enforcement violations

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

No findings were identified.

4OA3 Follow-up of Events (71153).1 (Closed) Licensee Event Report 05000348/364/2014-003-00, Scaling Errors Result in Inoperable Steam Flow Channels for Durations Longer Than Allowed by Technical Specificationsa. Inspection Scope

The inspectors reviewed this licensee event report (LER), the root cause determination report (CAR 209957) and discussed the issue with licensee staff. On April 2, 2014, with Unit 1 operating in Mode 1 at 100 percent power, engineering personnel identified that Unit 1 procedures for calibration of steam flow channels contained incorrect scaling data due to the transmitter span information not being updated from the previous operating cycle. As a result of the incorrect scaling data, steam flow channel Q1C22FT0484, "1B" steam generator channel III steam flow instrument, was outside of its allowed technical specification (TS) tolerance. On April 8, 2014, during continued extent of condition reviews, Unit 2 steam flow channel Q2C22FT0494, "2C" steam generator channel III steam flow instrument, was found to be outside of its allowed TS tolerance. These steam flow instruments were declared inoperable and the required actions of the TS were performed. The calibration procedures were updated with the correct scaling data, and the Unit 1 and Unit 2 steam flow transmitters were re-calibrated and returned to service on April 5, 2014, and April 9, 2014, respectively. Licensee Event Report 05000348/364/2014-003-00 is closed.

b. Findings

The enforcement aspects of this finding are discussed in Section 4OA7.

.2 (Closed) Licensee Event Report 05000364/2014-001-00, Inoperable "B" Train Solid State Protection System Results in Technical Specification Required Shutdowna. Inspection Scope

The inspectors reviewed this LER, the associated root cause report (CAR 208955) and discussed the issue with licensee staff. On January 11, 2014, Unit 2 completed a shutdown to comply with the required action statements of TS 3.3.1 (Reactor Trip System Instrumentation) and 3.3.2 (Engineered Safety Feature Actuation System) due to logic testing failures encountered during performance of periodic logic surveillance testing on the "B" Train of the solid state protective system (SSPS). The licensee identified the logic testing failures were caused by foreign material that resulted in an intermittent short between two logic card connector pins. Following removal of the foreign material from the SSPS cabinet and successful logic test of the "B" Train SSPS that restored operability on January 13, 2014, a plant startup commenced on January 14, 2014. Licensee Event Report 05000364/2014-001-00 is closed.

b. Findings

No findings were identified.

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.3 (Closed) Licensee Event Report 05000348/364/2014-001-00, Failure to Comply With Technical Specification 3.4.3 During Reactor Coolant System Vacuum Refill

a. Inspection Scope

The inspectors reviewed this LER, an evaluation from Westinghouse and discussed the issue with licensee staff. On February 18, 2014, the licensee determined that both units were not in compliance with TS 3.4.3, "Reactor Coolant System (RCS) Pressure and Temperature (P/T) Limits," during previous refueling outages on each unit. From October 1995 through April 2012, there have been twenty three (23) refueling outages where the RCS was placed under a vacuum to perform vacuum refill operations. The licensee determined that the cause for not entering the required action statements for TS 3.4.3 was failure of the licensee to recognize that a negative pressure (vacuum) is not allowed by the TS. The licensee determined that the stress margins of the reactor pressure vessel and related components were not challenged during the vacuum refill operations. Corrective actions are in progress to revise the P/T limit curve to encompass RCS vacuum conditions. Licensee Event Report 05000348/364/2014-001-00 is closed.

b. Findings

A minor violation of TS 3.4.3 was identified for Units 1 and 2 for failure to recognize that a negative RCS pressure is not allowed by TS. TS 3.4.3, "RCS Pressure and Temperature (P/T) Limits," required that RCS pressure, RCS temperature, and RCS heat-up and cooldown rates shall be maintained within the limits specified in the pressure temperature limits report (PTLR) and is applicable at all times. The PTLR curves associated with Units 1 and 2 required RCS pressure to be maintained greater than or equal to zero (0) psig. Contrary to those requirements, from October 1995 through April 2012, there have been twelve refueling outages conducted on Unit 1 and eleven on Unit 2 during which the RCS pressure was less than zero (0) psig during vacuum refill operations. The inspectors determined that this issue was a minor violation because it was similar to example 2.g of IMC 0612 Appendix E dated August 11, 2009 in that operation of the RCS under vacuum conditions did not cause an adverse safety consequence. The licensee entered this into the corrective action program as CR 775288. Corrective actions are in progress to revise the PTLR curves to allow for operation of the RCS at pressure below zero psig. This failure to comply with TS 3.4.3 constitutes a minor violation that is not subject to enforcement action in accordance with the NRC's Enforcement Policy.

4OA5 Other Activities

.1 Operation of an Independent Spent Fuel Storage Installation (60855.1)

a. Inspection Scope

The inspectors performed a walkdown of the onsite independent spent fuel storage installation (ISFSI) and monitored the activities associated with the dry fuel storage campaign completed during the second quarter of 2014. The inspectors reviewed records to verify that the licensee recorded and maintained the location of each fuel assembly placed in the ISFSI. The inspectors also reviewed surveillance records to verify that daily surveillance requirements were performed as required by technical specifications. Documents reviewed are listed in the Attachment.

b. Findings

No findings were identified.

.2 (Closed) Apparent Violation 05000348/05000364/2014002-02: Failure to Implement Preventive Maintenance on 4160V Breaker Mechanism Operated Cell Switches

a. Inspection Scope

The inspectors reviewed the root cause determination report (CAR 208298) and discussed the issue with licensee staff. On October 4, 2013, during performance of a TS required surveillance per licensee procedure FNP-1-STP-40.0B, "Safety Injection with Loss of Offsite Power Test – "B" Train," the B1G sequencer did not actuate as expected. The "1B" EDG output breaker (DG08) is a Cutler Hammer 4160V breaker that actuates a mechanism operated cell (MOC) switch. This MOC switch actuates the B1G sequencer that loads ESF equipment in a predetermined sequence and prevents diesel overload during design based accidents. The licensee determined that the MOC switch inside the "1B" EDG DG08 breaker cubicle failed to operate when the breaker closed. The licensee immediately replaced the MOC switch in breaker DG08, as well as the breaker, and quarantined both for further evaluation. During extent of condition investigations, the licensee identified two additional failed MOC switches associated with the "2D" and "1E" service water pump 4160V breakers. The licensee sent these three failed MOC switches to an offsite vendor for independent destructive testing and failure analysis. The licensee's root cause analysis, which incorporated data and findings from the vendor's destructive testing report, concluded that the lack of lubrication between the MOC switch bushings and the housing was the direct cause of the MOC switch failure. Apparent Violation (AV) 05000348/05000364/2014002-02 is closed.

b. Findings

The enforcement aspects of this finding are discussed in Section 4OA7.

40A6 Meetings, Including Exit

On July 15, 2014, the resident inspectors presented the inspection results to Mr. J.J. Hutto and other members of the licensee's staff. The inspectors confirmed that proprietary information was not provided or examined during the inspection.

40A7 Licensee-Identified Violations

The following violations of very low safety 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 a Non-Cited Violation.

- Technical Specification 3.3.2, "Engineered Safety Feature Actuation System (ESFAS) Instrumentation," required the ESFAS instrumentation for each function in Table 3.3.2-1 to be operable. Table 3.3.2-1, Function 4.e., "Steam Line Isolation," required two (2) channels per steam line and is applicable in Mode 1 and Modes 2 and 3, except when one main steam isolation valve is closed in each steam line. When one channel is inoperable, Condition D required placing the inoperable channel in trip within 72 hours. Contrary to the above between October 25, 2013, and April 2, 2014, the "1B" steam generator channel III steam flow instrument (FT-484) was found to have a trip setpoint above the TS required value of 110.3 percent. Action was not taken to either restore the flow transmitter to operable status or place the channel in trip within 72 hours until operations staff was made aware of the issue on April 2, 2014. Subsequently, FT-484 was recalibrated to within the TS allowable value and placed back in service on April 5, 2014. This issue was entered in the licensee's corrective action program as CR 795798. Additionally, between May 8, 2013 and April 8, 2014, the "2C" steam generator channel III steam flow instrument (FT-494) was found to have a trip setpoint above the TS required value of 110.3 percent. Action was not taken to either restore the flow transmitter to operable status or place the channel in trip within 72 hours until operations staff was made aware of the issue on April 8, 2014. Subsequently, FT-494 was recalibrated to within the TS allowable value and placed back in service on April 9, 2014. This issue was entered in the licensee's corrective action program as CR 798185. The finding screened to Green, very low safety significance, in accordance with IMC 0609, "The Significance Determination Process (SDP) For Findings At-Power," Exhibit 2, because it did not represent an actual loss of function of a single train for greater than its TS allowed outage time. Redundant instruments were available to actuate the main steam isolation function at the required setpoint. This violation is associated with LER 05000348/364/2014-003-00.
- Technical Specification 5.4.1.a, "Procedures," required that written procedures, specified in Regulatory Guide 1.33, Revision 2, Appendix A, February 1978, be established, implemented, and maintained. Regulatory Guide 1.33, Section 9a, stated 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, since March 2002, station personnel failed to implement preventive maintenance procedure FNP-0-EMP-1313.12, "Maintenance of Siemens-Allis 4.16kv Metal-Clad

Enclosure

Switchgear MOC Switch” on safety related 4160V MOC switches. As a result of not performing this procedure, safety-related MOC switches were not properly lubricated and sequencer “B1G” did not actuate during required surveillance testing. This prevented “1B” EDG from loading during the performance of FNP-1-STP-40.0B, “Safety Injection With Loss of Off-Site Power Test – “B” Train” on October 4, 2013. The licensee replaced the “1B” EDG output breaker and its associated MOC switch. This issue was placed in the licensee’s corrective action program as CR 713134. The finding was screened in accordance with NRC Inspection Manual Chapter (IMC) 0609 Attachment 4, “Initial Characterization of Findings” and was determined to affect the Mitigation Systems Cornerstone as Short Term and Long Term Decay Heat Removal was affected and a detailed risk evaluation was required. A detailed risk evaluation was performed, in accordance with NRC IMC 0609 Appendix A, by a regional senior reactor analyst using both the licensee full scope probabilistic risk assessment and fire model and the NRC SPAR model. A one year exposure period was assumed. The dominant Unit 1 internal risk sequence was a single unit loss of offsite power (LOOP) with a common cause MOC switch failure and failure of the operator to load the sequencer leading to station blackout (SBO) and an unmitigated reactor coolant pump seal LOCA. The dominant Unit 2 internal risk sequence was a single unit LOOP with “2B” EDG failure to run and 1/2AEDG failed due to MOC switch failure and failure to load the sequencer leading to SBO and an unmitigated RCP seal LOCA. The risk was mitigated by the recovery potential and the remaining mitigation equipment. The change in risk due to the performance deficiency was an increase in core damage frequency for both units of less than 1E-6 per year a Green finding of very low safety significance. This violation is associated with AV 05000348/364/2014-002-02.

ATTACHMENT: SUPPLEMENTAL INFORMATION

Enclosure

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee

B. Arens, Licensing Supervisor
J. Carroll, Shift Operations Manager
J. Collier, Licensing Engineer
H. Cooper, Engineering Programs Supervisor
D. Drawbaugh, EP Manager
D. Enfinger, Corrective Action Program Supervisor
M. Galle, Simulator Coordinator
C. Gayheart, Site Vice President
R. Godwin, Training Director
S. Henry, Operations Director
R. Herrin, Operations Outage Manager
D. Hobson, Shift Operations Manager
J. Hutto, Plant Manager
V. Locke, Performance Improvement Supervisor
R. Martin, Regulatory Affairs Manager
J. McLean, Licensing Engineer
R. Odom, Operations Lead Instructor - Continuing Training
G. Ohmstede, Fleet Exam Manager
M. Peel, Medical Services Supervisor
B. Reed, Nuclear Operations Training Supervisor
D. Reed, Operations Support Manager
L. Riley, Performance Improvement
I. Sarygin, Sr. Engineer
L. Shaffield, Assistant Maintenance Director
D. Simmons, EP Specialist
R. Smith, Site Design Manager
B. Taylor, Nuclear Oversight Supervisor
C. Thornell, Site Projects Manager
B. Thorton, Lead Operations Instructor
C. Westberry, Engineering Project Manager
T. Youngblood, Engineering Director

NRC personnel

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

LIST OF ITEMS OPENED AND CLOSED

Opened and Closed

None

Opened

None

Closed

05000348/364/2014-003-00	LER	Scaling Errors Result in Inoperable Steam Flow Channels for Durations Longer Than Allowed by Technical Specifications (Section 4OA3.1)
05000364/2014-001-00	LER	Inoperable B-Train Solid State Protection System Results in Technical Specification Required Shutdown (Section 4OA3.2)
05000348/364/2014-001-00	LER	Failure to Comply With Technical Specification 3.4.3 During Reactor Coolant System Vacuum Refill (Section 4OA3.3)
05000348/364/2014002-02	AV	Failure to Implement Preventive Maintenance on 4160V Breaker Mechanism Operated Cell Switches (Section 4OA5.2)

Discussed

None

LIST OF DOCUMENTS REVIEWED

Section 1R01: Adverse Weather Protection

Procedures:

FNP-0-AOP-21, Severe Weather, Ver. 38.0
FNP-1-AOP-5.2, Degraded Grid, Ver. 16.0
FNP-1-AOP-5.1, Contingency Electrical Alignments, Ver. 9.0
FNP-1-AOP-5.0, Loss of A or B Train Electrical Power, Ver. 27.0
NMP-OS-020, Station Response to Southern Company System Alert Conditions, Ver. 1.1
NMP-AD-014-002, NUC-001 Nuclear Plant Interface Coordination for Southern Nuclear Operating Company, Ver. 4.0
NSC NUC-001, Plant Interface Coordination for Southern Nuclear Operating Company, Ver. 2.0
FNP-0-ACP-4.0, Switchyard Control, Rev. 14.1
NMP-GM-021, Switchyard Access and Maintenance Controls, Ver. 5.0
FNP-1-STP-27.1, AC Source Verification, Ver. 38.0
FNP-1-ARP-1.13, Main Control Board Annunciator Panel N, Ver. 19.1
FNP-0-ARP-2.2, Emergency Power Board Annunciator Panel W, Ver. 19.1

Drawings:

D-169970L, 23-kV Single Line Diagram, Ver. 1.0
D-207000, Unit No. 2 Single Line – Electrical Auxiliary System (4160V & 600V) Ver. 24.0
D-177001, Unit No. 1 Single Line – Electrical Auxiliary System (4160V & 600V) Ver. 20.0

Condition Reports:

819346

Documents:

High Voltage Switchyard Morning Report, May 23, 2014

Section 1R04: Equipment Alignment

Drawings:

D175038, Safety Injection System, Sheet 1, Ver. 7.0

Procedures:

FNP-1-SOP-7.0, Residual Heat Removal System, Ver. 103.0
FNP-1-SOP-7.0A, Residual Heat Removal System, Ver. 10.0
FNP-0-SOP-38.0C, 1C Emergency Diesel Generator, Ver. 13.0
FNP-1-SOP-2.1, Chemical and Volume Control System Plant Startup and Operation, Ver. 134.0
FNP-1-SOP-8.1A, High Head Safety Injection System, Ver. 13.0

Documents:

A-181004, Functional System Description: Electrical Distribution System, Ver. 50.0

Section 1R05: Fire Protection Annual/Quarterly

Drawings:

A-508650, Fire Zone Data Sheet: Unit 1 Turbine Building South El. 137' – 0", Sheet 50, Ver. 2.0
A-508651, Fire Zone Data Sheet: Diesel Generator Building (East), Sheet 6, Ver. 3.0
A-508650, Fire Zone Data Sheet: Aux. Bldg. El. 121'-0", Sheet 20, Ver. 13
A-508650, Fire Zone Data Sheet: Aux. Bldg. El. 100' – 0", Sheet 10, Ver. 3

Attachment

Procedures:

NMP-TR-425-F01, Fire Drill Approval Sheet (Drill 20140409-1), Version 3.0
 NMP-TR-425-F02, Drill Exercise Completion Sheet (Drill 20140409-1), Version 4.0
 NMP-TR-425-F04, Drill Planning and Conduct Sheet (Drill 20140409-1), Version 1.1
 NMP-TR-425-F05, Main Control Room Fire Drill Worksheet (Drill 20140409-1), Version 2.0
 NMP-TR-425-F06, Fire Equipment Staging Area (Lockers) Command Post (Drill 20140409-1),
 Version 2.0
 NMP-TR-425-F07, Fire Scene Fire Drill Worksheet (Drill 20140409-1), Version 2.1
 FNP-0-AOP-29.0, Plant Fire, Ver. 42.0
 FNP-0-ACP-35.2, Flammable Material and Combustible Material Control, Ver. 17

Section 1R06: Flood Protection MeasuresDocuments:

Units and 2 Internal Flooding Notebook PRA Model Revision 9, dated March 2010

Section 1R11: Licensed Operator Regualification ProgramDocuments:

FNP Training Scenario Guide 12-S1302, Ver. 0
 FNP-2-UOP-3.1, Power Operation, Ver. 107, dated 5/17/2014
 Farley Unit 2 Planned Maintenance Outage Schedule, May 14, 2014

Procedures:

FNP-2-UOP-2.4, Planned Reactor Shutdown and Cooldown to Cold Standby, Ver. 14.0
 FNP-0-TCP-17.3, Licensed Operator Continuing Training Program Administration, Ver. 36.0
 FNP-0-TCP-17.6, Simulator Training Evaluation / Documentation, Ver. 30
 FNP-0-SOP-0.0, General Instructions to Operations Personnel, Ver. 153.1
 NMP-OS-001, Reactivity Management Program, Ver. 17.1
 NMP-OS-007, Conduct of Operations, Ver. 10.0
 FNP-2-SOP-28.1, Turbine Generator Operation, Ver. 119.0
 FNP-0-TCP-25.1 Simulator Fidelity, Revision 3.0
 TR-423-F17 Plant Farley Simulator Security Checklist, Revision 4
 NMP-TR-416, Licensed Operator Continuing Training Program Administration, Revision 1.1
 NMP-TR-424, License Operator Continuing Training Exam Development, Revision 2.0
 NMP-TR-424-001, Operator License Regulatory Exam Security Administration, Revision 1.0

Condition Reports:

398073-Security, Time on Security Computer needs to be reset (1/25/2012)
 653634- Time on Security Computer needs to be reset (06/11/2013)
 749175- Time on Security Computer needs to be reset (12/27/2013)

Simulator SCRs:Closed:

2011140, IC 72 has boron frozen,
 2012009, Simulator aborts or halts
 2012019, Steam dump failure on a loss of DC
 2012022, OPC Actuation sometimes occurs when generator output breakers are closed
 2012028, Transport time for boron additions too slow compared to plant
 2012072, CTG-2.1, Failure of Instrument Air System, valve failed to fail properly

Open:

2013008, Gamma-Metrics display failed
 2013061, Leakage failure for RCVF114B not giving a leak
 2013092, Diesel Generator Speed Failure
 2014018, Rad Transport Breakdown when LTDN HX tube leak continues at low chg flow

Simulator Transient Tests:

FNP-0-CTG-3.02.2013A, Simultaneous Trip of all Feed Pumps
 FNP-0-CTG-3.03.2013A, Simultaneous Closure of all Main Steam Isolation Valves
 FNP-0-CTG-3.07.2013A, Maximum Rate Power Ramp from 100 percent power to 75 percent power and back to 100 percent power

Simulator Malfunction Tests:

FNP-0-CTG-1.0, Start-up of Unit from C S/D to Hot Standby, Revision 1.0
 FNP-0-CTG-1.1, Start-up of Unit from Hot Standby, Revision 1.0
 FNP-0-CTG-1.5, Start-up of Unit from an at Power Reactor Trip, Revision 2.0
 FNP-0-CTG-2.1, Failure of the Instrument Air System, Revision 1.0
 FNP-0-CTG-2.12, Degraded Grid Voltage-LOOP, Revision 1.0
 FNP-0-CTG-2.14, Emergency 4160V Bus Trip, Revision 3.0
 FNP-0-CTG-2.20, 120VAC Vital Instrument distribution Panel Trip, Revision 1.0
 FNP-0-CTG-2.31, Steam-line Break Inside Containment, Revision 2.0
 FNP-0-CTG-2.45, Pressurizer Pressure Channel Failure, Revision 2.0
 FNP-0-CTG-2.49, Loss of Coolant Accident (LOCA), Revision 1.0
 FNP-0-CTG-2.51, RCP Trip, Revision 2.0

Simulator Core Tests:

FNP-1-STP-101 Low Power Reactor Physics Testing, Revision 22
 FNP-0-CTG-1.6, Core Performance Testing, Revision 1.0

Written Exams Reviewed:

Farley 2014 RO Requalification Inspection Blue Exam Two
 Farley 2014 SRO Requalification Inspection Blue Exam Two

Records:

Reviewed 16 medical records
 Reviewed 6 simulator scenarios
 License Reactivation Packages (2 Records Reviewed)
 LORP Training Attendance records
 Remedial Training Records (6 Records Reviewed)
 Remedial Training Examinations (2 Records Reviewed)

Simulator Scenarios Reviewed:

Scenario # 2
 Scenario # 9
 Scenario # 11
 Scenario # 14
 Scenario # 23
 Scenario # 27

Scenario Packages:

Scenario #02 20140214
Scenario #11 20140205
Scenario #23 21040213
Scenario #27 20140205

JPM Packages:

LOCT JPM Exam Week 1
LOCT JPM Exam Week 2

Standards:

ANSI/ANS-3.5-1985, American National Standard Nuclear Power Plant Simulators for Use In Operator Training and Examination
ANSI/ANS-3.4-1983, Medical Certification and Monitoring of Personnel Requiring Operator Licenses for Nuclear Power Plants

Other:

2011 JPM – Sim Report
2012 Operating Written Exam Report
OCT 2012 Biennial Exam Report
FNP HU Clock Resets since June 2010
OPS HU CAR Report
LER 2010-04-00, Loss of Refueling Integrity

Section 1R12: Maintenance Effectiveness

Condition Reports:

801205, 807488, 685613, 574393, 744411, 58943, 735650

Technical Evaluations:

736269, 832544

Calculations:

SM-SNC361224-001, Service Water Intake Structure (SWIS) HVAC Heat Load Analysis
Version 2

Documents:

Maintenance Rule Expert Panel Meeting #14-9 Agenda
Station Maintenance Rule: Functional Scoping Data Sheet – Circ Water Structure – HVAC (SWIS), dated 8/1/2011
Plant Farley Maintenance Rule Periodic Assessment Report, November 2013

Procedures:

NMP-GM-031-001, Online Maintenance Rule (a)(4) Risk Calculations, Ver. 1.0
NMP-ES-027, Maintenance Rule program, Version 3.0
NMP-ES-027, Maintenance Rule implementation, Version 4.0

Work Orders:

SNC93449

Section 1R13: Maintenance Risk Assessments and Emergent Work EvaluationProcedures:

FNP-0-ACP-52.3, Mode 1,2,& 3 Risk Assessment, Ver. 9.0
 NMP-GM-031, On-Line Configuration Risk Management Program, Ver. 1.2
 NMP-GM-031-001, Online Maintenance Rule (a)(4) Risk Calculations, Ver. 1.0
 NMP-GM-021, Switchyard Access and Maintenance Controls, Ver. 4.0

Condition Reports:

804803, 805258, 805624

Section 1R15: Operability Determinations and Functionality AssessmentsCondition Reports:

795798, 798185, 801639, 805835, 749185, 820984

Drawings:

D175002, PI&D – Component Cooling Water System, Sheet 2, Ver. 28.0
 D177854, Elementary Diagram Solenoid Valves Sheet, Ver. 11.0
 D175005, Unit 1 PI&D – Auxiliary Bldg. Drains Non-Rad., Ver. 28.0

Documents:

WCAP-13751
 SM-SNC560138-001, FNP Room 192 Heatup During Auxiliary Steam Line Break, Ver. 1.0
 DOEJ-FRSNC542327-M001, Evaluation of Unsealed Drain in Room 192, Ver. 1.0
 A181010, Functional System Description – Auxiliary Feedwater System, Ver. 28.0

Procedures:

NMP-AD-012, Operability Determinations and Functionality Assessments, Ver. 12.1

Technical Evaluations:

795827

Other:

A508622, Steam Flow Computerized Scaling Manual
 CAR 210168, CAR 210581

Section 1R19: Post Maintenance TestingCondition Reports:

796862, 796935, 796381, 796486, 790946, 806703, 801205, 807488

Drawings:

D-205033, Unit 2 P&ID – Main Steam and Auxiliary Steam Systems Sheets 1&2, Ver. 24
 D-207188, Elementary Diagram – TDAFW pump, Train “C”, Ver. 17
 U-611504, Turbine Control Schematic, Sheet 2 of 4, Ver. 3.0
 U-732802, Instruction Manual for Service Water Battery Chargers
 D-172708, Single Line Diagram, DC Distribution – Train “B” Service Water, Ver. 4.0
 D-175022, Unit 1 HVAC: P&ID Penetration Filtration System, Ver. 1.0
 D-175013, Unit 1 HVAC: Process Flow Diagram Penetration Room Filtration System, Ver. 11

Procedures:

FNP-2-STP-22.16, Turbine Driven Auxiliary Feedwater Pump Quarterly Inservice Test, Ver. 65.4
 FNP-1-STP-213.21, Steam Generator 1B Q1C22FT0484 Loop Calibration, Version 53.0
 NMP-MA-014-001, Post Maintenance Testing Guidance, Ver. 3.0
 FNP-0-STP-915.0, Service Water Building Battery Charger Load Test, Ver. 10.1
 FNP-2-STP-228.5A, NIS Power Range Channel N41 Calibration, Ver. 73.0
 FNP-1-STP-124.0A, A-Train Penetration Room Filtration Performance Test, Ver. 10.0

Work Orders:

SNC565084, SNC565239, SNC564824, SNC562727, SNC 503357, SNC568945, SNC568235, SNC567775, SNC567527, SNC380077, SNC574806

Documents:

U-184852, Diesel Generators 1B, 2B, and 1-2A Operations and Maintenance Manual, Ver. 41.0
 Farley Nuclear Plant Event Notification Form – EN#49744, January 18, 2014
 IST Program Component Basis Information – Unit 1, E11
 Troubleshooting Plan for RHR Valve HCV-603B, March 1, 2014
 WCAP-13751
 NCS Corporation Test Report 0038160, Radioiodine Penetration/Efficiency Test Report for 1A PRF Canister, dated May 9, 2014
 NCS Corporation Test Report 0038161, Radioiodine Penetration/Efficiency Test Report for 1A PRF Tray, dated May 9, 2014
 NCS Corporation Test Report 0038150, Radioiodine Penetration/Efficiency Test Report for 1A PRF Canister, dated May 1, 2014
 NCS Corporation Test Report 0038123, Radioiodine Penetration/Efficiency Test Report for 1A PRF, dated April 19, 2014
 NCS Corporation Test Report 0038135, Radioiodine Penetration/Efficiency Test Report for 1B PRF, dated April 29, 2014
 Nucon Test Report 13FARLY6169/1, Radioiodine Test Report for the 1A PRF sample canister, May 8, 2014
 Nucon Test Report 13FARLY6169/2, Radioiodine Test Report for the 1A PRF charcoal tray, May 8, 2014
 IRT Activation Checklist for 1A PRF train, May 1, 2014

Other:

Main Control Room Logs, April 3, 2014 to April 5, 2014
 Troubleshooting logs for CR 796381 performed on 4/4/2014

Section 1R22: Surveillance TestingCondition Reports:

780237, 794846, 794852, 797002, 797059

Procedures:

FNP-2-STP-80.1, Diesel Generator 2B Operability Test, Version 53.0
 FNP-2-STP-213.22, Steam Generator 2B Q2C22FT0485 Loop Calibration and Operational Test, Version 53.0
 FNP-2-STP-7.0, Quadrant Power Tilt Ratio Calculation, Ver. 20.0

FNP-0-M-50, Master List of Surveillance Requirements, Ver. 29.0
 FNP-0-AOP-29.0, Plant Fire, Rev. 42
 FNP-0-STP-24.17, Diesel Generator Service Water Valves Remote Position Indication Inservice Test, Ver. 8.0
 FNP-1-STP-9.0, RCS Leakage Test, Ver. 51.1
 FNP-2-STP-9.0, RCS Leakage Test, Ver. 47.1

Documents:

Power Range Nuclear Instruments Normalized Current Calculation Sheet, Curves 71 A,B,C,D
 Technical Specifications Surveillance Frequency Control Program Surveillance Test Interval List, Rev. 4
 FNP-0-STP-24.17, Diesel Generator Service Water Valves Remote Position Indication Inservice Test, performed on April 5, 2014
 Farley Unit 1 Fourth 10-Year Interval Valve Inservice Testing Basis Document, Ver. 4.0

Drawings:

D-170119, P&ID – Service Water System Diesel Generator Building Sheet 3, Ver. 19.0
 D-170119, P&ID – Service Water System Diesel Generator Building Sheet 2, Ver. 47.0
 D-170119, P&ID – Service Water System Diesel Generator Building Sheet 3, Ver. 35.0
 U-209116, General Arrangement Henry Pratt Butterfly Valve, Ver. 0

Section 1EP6: Drill Evaluation

Documents:

Emergency Preparedness Crew 3 HAB Exercise, dated 4/23/14

Procedures:

FNP-1-ECP-0.0, Loss of all AC Power, Ver. 26.0
 NMP-EP-110, Emergency Classification Determination and Initial Action, Version 7.1
 NMP-EP-111, Emergency Notifications, Version 9.0
 FNP-0-AOP-49.0, Imminent Security Threat, Ver. 24.0
 FNP-0-AOP-49.1, Airborne Security Threat, Ver. 11.0
 FNP-0-EIP-13.0, Fire Emergencies, Ver. 28.0
 FNP-0-AOP-29.0, Plant Fire, Rev. 42

Section 4OA1: Performance Indicator Verification

Procedures:

FNP-0-AP-54, Preparation and Reporting of NRC Performance Indicator Data and NRC Operating Data, Vers. 14.0 and 15.0

Documents:

FNP-0-M-151.0, NRC Mitigating Systems Performance Index (MSPI) Basis Document, Ver. 8
 Selected Unit 1 and Unit 2 Control Room Logs from March 2013 through March 2014
 NEI 99-02, Regulatory Assessment Performance Indicator Guideline, Revision 7
 MSPI Derivation Report for Heat Removal System, Units 1 and 2, dated 4/21/2014
 MSPI Derivation Reports for Residual Heat Removal System, Units 1 and 2, dated 4/21/2014

Section 40A2: Problem Identification and Resolution

Condition Reports:

782469, 821556, 829167, 637009, 637018, 727862, 775538

Corrective Action Reports:

CAR 205960, 196857, 208532, 209162

Technical Evaluations:

784939

Documents:

Maintenance Quarterly Trend Report 1st quarter 2014

Engineering Trend Report for 1st quarter 2014

Operations Fourth Quarter Trending Data

Operations First Quarter Trend Evaluation

Procedures:

NMP-GM-002-005, Corrective Action Program Trending, Ver. 1.0

NMP-GM-002-F32, Event Codes, Action Items, and Condition Report Types, Ver. 8.2

NMP-GM-013-002, Performance Assessment and Trending, Ver. 2.0

Section 40A3: Follow-up of Events and Notices of Enforcement Discretion

Condition Reports:

798185, 795798, 775288

Documents:

CAR 209957, 208955

MCOE-LTR-14-17, Applicability of the Pressure-Temperature Limit Curve Figures During Vacuum Refill of the RCS in Mode 5 for Westinghouse and CE NSSS Plants Rev. 0

Section 40A5: Other Activities

Procedures:

FNP-0-MP-111.1, Hi-Storm System Site Transportation, Ver. 14.0