



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

July 19, 2016

Mr. David A. Heacock
President and Chief Nuclear Officer
Virginia Electric and Power Company
Innsbrook Technical Center
5000 Dominion Boulevard
Glen Allen, VA 23060-6711

**SUBJECT: SURRY POWER STATION – NRC INTEGRATED INSPECTION REPORT
05000280/2016002 AND 05000281/2016002**

Dear Mr. Heacock:

On June 30, 2016, the United States Nuclear Regulatory Commission (NRC) completed an inspection at your Surry Power Station, Units 1 and 2. On July 13, 2016, the NRC inspectors discussed the results of this inspection with Mr. R. Simmons 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.

In accordance with Title 10 of the Code of Federal Regulations (CFR) 2.390, "Public Inspections, Exemptions, Requests for Withholding," of the NRC's "Agency Rules of Practice and Procedure," 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 the NRC's Agencywide Documents 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/

Steven D. Rose, Chief
Reactor Projects Branch 5
Division of Reactor Projects

Docket Nos.: 50-280, 50-281
License Nos.: DPR-32, DPR-37

Enclosure:
IR 05000280/2016002, 05000281/2016002
w/Attachment: Supplemental Information

cc Distribution via ListServ

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D. Heacock

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Letter to David A. Heacock from Steven D. Rose dated July 19, 2016

SUBJECT: SURRY POWER STATION – NRC INTEGRATED INSPECTION REPORT
05000280/2016002 AND 05000281/2016002

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U.S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket Nos.: 50-280, 50-281

License Nos.: DPR-32, DPR-37

Report No: 05000280/2016002, 05000281/2016002

Licensee: Virginia Electric and Power Company (VEPCO)

Facility: Surry Power Station, Units 1 and 2

Location: 5850 Hog Island Road
Surry, VA 23883

Dates: April 1, 2016 through June 30, 2016

Inspectors: P. McKenna, Senior Resident Inspector
C. Jones, Resident Inspector
S. Sanchez, Senior Emergency Preparedness Inspector (1EP2,
1EP3, 1EP5, 4OA1)
C. Fontana, Emergency Preparedness Inspector (1EP2, 1EP3,
1EP5, 4OA1)
J. Hickman, Emergency Preparedness Inspector (trainee)

Approved by: Steven D. Rose, Chief
Reactor Projects Branch 5
Division of Reactor Projects

Enclosure

SUMMARY

IR 05000280/2016002, 05000281/2016002; 04/01/2016-06/30/2016; Surry Power Station, Units 1 and 2: Routine Integrated Inspection Report.

The report covered a three-month period of inspection by resident inspectors and region-based inspectors. No NRC-identified or self-revealing findings 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.

REPORT DETAILS

Summary of Plant Status

Unit 1 operated at or near rated thermal power (RTP) throughout the inspection period.

Unit 2 operated at or near RTP throughout the inspection period.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

1R01 Adverse Weather Protection

.1 Review of Offsite Power and Alternate AC Power Readiness

a. Inspection Scope

The inspectors verified that plant features, and procedures for operation and continued availability of offsite and alternate alternating current (AAC) power systems were appropriate. The inspectors reviewed the licensee's procedures affecting those areas, and the communications protocols between the transmission system operator and the nuclear power plant to verify that the appropriate information was exchanged when issues arose that could impact the offsite power system. The inspectors evaluated the readiness of the offsite and AAC power systems by reviewing the licensee's procedures that address measures to monitor and maintain the availability and reliability of the offsite and AAC power systems. The inspectors evaluated the material condition of the associated equipment by interviewing the responsible system manager, reviewing condition reports, and walking down portions of the offsite and alternating current (AC) power systems including the 500 kilovolt (KV) and 230 KV switchyards.

b. Findings

No findings were identified.

.2 Seasonal Readiness Reviews for Hot Weather

a. Inspection Scope

The inspectors reviewed the licensee's preparations for seasonal hot weather. The inspection focused on verification of design features and implementation of the licensee's procedure for hot weather conditions, 0-OSP-ZZ-003, "Hot Weather Preparation," Revision 6. The inspectors walked down key structures including the turbine and auxiliary buildings, safeguards buildings, emergency diesel generator (EDG) rooms, emergency switchgear rooms (ESGR), and emergency battery rooms; and verified heating, ventilation and air-conditioning (HVAC) systems were operating properly and that area temperatures remained within design requirements specified in the Updated Final Safety Analysis Report (UFSAR). The mitigating systems reviewed during this inspection include: the auxiliary feedwater systems, the refueling water storage tanks, EDGs, and emergency switchgear.

b. Findings

No findings were identified.

1R04 Equipment Alignment

Partial Walkdown

a. Inspection Scope

The inspectors conducted four equipment alignment partial walkdowns to evaluate the operability of selected redundant trains or backup systems listed below with the other train or system inoperable or out of service. The inspectors reviewed the functional systems descriptions, USFAR, system operating procedures, and Technical Specifications (TS) to determine correct system lineups for the current plant conditions. The inspectors performed walkdowns of the systems to verify that critical components were properly aligned and to identify any discrepancies which could affect operability of the redundant train or backup system.

- Unit 2 “A” Outside Recirculation Spray System (OSRS), after system valve stroking surveillance test.
- AAC Diesel during #3 EDG planned maintenance package.
- Unit 1 "A" Low Head Safety Injection (LHSI) system during "B" LHSI pump planned maintenance.
- “A”, “B”, and “C” Main Control Room (MCR) Chillers while “D” and “E” MCR Chillers were out of service for planned maintenance.

b. Findings

No findings were identified.

1R05 Fire Protection

Quarterly Fire Protection Reviews

a. Inspection Scope

The inspectors conducted tours of the five areas listed below that are important to reactor safety to verify the licensee’s implementation of fire protection requirements as described in fleet procedures CM-AA-FPA-100, “Fire Protection/Appendix R (Fire Safe Shutdown) Program,” Revision 11; CM-AA-FPA-101, “Control of Combustible and Flammable Materials,” Revision 8; and CM-AA-FPA-102, “Fire Protection and Fire Safe Shutdown Review and Preparation Process and Design Change Process,” Revision 7. The reviews were performed to evaluate the fire protection program operational status and material condition and the adequacy of: (1) control of transient combustibles and ignition sources; (2) fire detection and suppression capability; (3) passive fire protection features; (4) compensatory measures established for out-of-service, degraded or inoperable fire protection equipment, systems, or features; and (5) procedures,

equipment, fire barriers, and systems so that post-fire capability to safely shutdown the plant is ensured. The inspectors reviewed the corrective action program to verify fire protection deficiencies were being identified and properly resolved.

- Emergency Service Water (ESW) Pump House
- #2 EDG Room
- Unit 1 and Unit 2 Cable Tray Rooms
- Unit 1 Normal Switchgear Rooms
- Unit 2 Normal Switchgear Rooms

b. Findings

No findings were identified.

1R11 Licensed Operator Requalification Program

.1 Resident Inspector Quarterly Review

a. Inspection Scope

The inspectors observed and evaluated a licensed operator simulator exercise given on June 21, 2016. The scenario involved high reactor coolant system (RCS) radioactivity due to a fuel failure; loss of both main feed pumps and failure of the reactor to automatically trip; a steam generator (SG) tube rupture; and a SG main steam line break which causes a radioactive release to the environment leading to a general emergency declaration. The inspectors observed the crew's performance to determine whether the crew met the scenario objectives; accomplished the critical tasks; demonstrated the ability to take timely action in a safe direction and to prioritize, interpret, and verify alarms; demonstrated proper use of alarm response, abnormal and emergency operating procedures; demonstrated proper command and control; communicated effectively; and appropriately classified events per the emergency plan. The inspectors observed the post training critique to determine that weaknesses or improvement areas revealed by the training were captured by the instructor and reviewed with the operators.

b. Findings

No findings were identified.

.2 Resident Inspector Observation of Control Room Operations

a. Inspection Scope

During the inspection period, the inspectors conducted observations of licensed reactor operator activities to ensure consistency with licensee procedures and regulatory requirements. For the following activities, the inspectors observed the following elements of operator performance: 1) operator compliance and use of plant procedures including technical specifications; 2) control board component manipulations; 3) use and interpretation of plant instrumentation and alarms; 4) documentation of activities; 5) management and supervision of activities; and 6) control room communications.

- On April 18, 2-OPT-SI-005, "Low Head Safety Injection Pump Test" on Unit 2
- On April 26, Operator response to electrical grid instability and loss of N16 radiation detectors
- On May 9, 1-OSP-EP-002, "Generator Reactive Power Capability Testing" on Unit 1 and infrequently conducted or complex evolution (ICCE) brief

b. Findings

No findings were identified.

1R12 Maintenance Effectiveness

a. Inspection Scope

For the one equipment issue listed below and the periodic evaluation (two samples total), the inspectors evaluated the effectiveness of the corresponding licensee's preventive and corrective maintenance. The inspectors performed a detailed review of the problem history and associated circumstances, evaluated the extent of condition reviews, as required, and reviewed the generic implications of the equipment and/or work practice problem(s). Inspectors performed walkdowns of the accessible portions of the system, performed in-office reviews of procedures and evaluations, and held discussions with system engineers. The inspectors compared the licensee's actions with the requirements of the Maintenance Rule (10 CFR 50.65), station procedures ER-AA-MRL-10, "Maintenance Rule Program," Revision 10, and ER-AA-MRL-100, "Implementing Maintenance Rule," Revision 10.

- CRs 1029109 and 1030874, Relay failures on Unit 1 consequence limiting system (CLS) HI logic and Unit 1 "J" emergency bus degraded voltage (DV) protection
- Maintenance Rule Periodic a(3) Review 01/01/2014 to 07/01/2015

b. Findings

No findings were identified.

1R13 Maintenance Risk Assessments and Emergent Work Control

a. Inspection Scope

The inspectors evaluated, as appropriate, the seven activities listed below for the following: (1) the effectiveness of the risk assessments performed before maintenance activities were conducted; (2) the management of risk; (3) that, upon identification of an unforeseen situation, necessary steps were taken to plan and control the resulting emergent work activities; and, (4) that maintenance risk assessments and emergent work problems were adequately identified and resolved. The inspectors verified that the licensee was complying with the requirements of 10 CFR 50.65(a) (4) and the data output from the licensee's safety monitor associated with the risk profile of Units 1 and 2. The inspectors reviewed the corrective action program to verify deficiencies in risk assessments were being identified and properly resolved.

- On April 7, Unit 2 risk while the 1-VS-S-1A SW strainer was out of service for maintenance and there was adverse impending weather (thunderstorms/high winds) in the area.
- On April 14, Unit 1 and Unit 2 risk during troubleshooting and repair of the 2A2 vital bus uninterruptible power supply (UPS) after it had shifted to its alternate power supply with the Unit 2 "B" charging (CH) pump and the Unit 1 "B" CH/SW pump out of service for planned maintenance.
- On April 25, Unit 1 and Unit 2 risk during #3 EDG maintenance package.
- On May 9 and 10, Unit 1 and Unit 2 risk while conducting main generator reactive power capability testing.
- On June 13 and 14, Unit 1 and Unit 2 risk during AAC DG planned maintenance and unplanned maintenance on channel 1 intake canal instrumentation, "C" MCR chiller SW pipe leak, and Unit 2 turbine building sump pump.
- On June 22, Unit 1 and 2 risk during #3 EDG unplanned voltage regulator maintenance.
- On June 30, Unit 1 and 2 risk during unplanned maintenance on #3 EDG starting air system.

b. Findings

No findings were identified.

1R15 Operability Evaluations

a. Inspection Scope

The inspectors reviewed the six operability evaluations listed below, affecting risk-significant mitigating systems, to assess as appropriate: (1) the technical adequacy of the evaluations; (2) whether continued system operability was warranted; (3) whether other existing degraded conditions were considered; (4) if compensatory measures were involved, whether the compensatory measures were in place, would work as intended, and were appropriately controlled; and (5) where continued operability was considered unjustified, the impact on TS Limiting Conditions for Operation and the risk significance. The inspectors' review included verification that operability determinations were made as specified in OP-AA-102, "Operability Determination," Revision 14. The inspectors reviewed the licensee's corrective action program to verify deficiencies in operability determinations were being identified and corrected. One sample included a review regarding the licensee's assessments and corrective actions for operator workarounds (OWAs). The inspectors reviewed the cumulative effects of the licensee's OWAs and licensee procedure OP-AA-1700, "Operations Aggregate Impact," Revision 6, and evaluated OWAs against the requirements of the licensee's CAP as specified in PI-AA-200, "Corrective Action," Revisions 30, 10 CFR 50, Appendix B, and OP-AA-100, "Conduct of Operations," Revision 30.

- CR1033107, 1-SW-3, "B" ESW pump engine coolant outlet valve had a cracked flange downstream of the valve
- CR1037888, General corrosion on 1-SW-RTD-105B, RSHX SW supply header resistance temperature detector (RTD) fasteners
- CR1038630, Low pressure start of diesel driven fire pump
- CR1039764, Intake canal low level spurious alarms

- CR 1040499, #3 EDG voltage regulator not fully qualified
- CR1040626, 1-RC-TE-1432A, "C" loop T-hot RTD degradation

b. Findings:

No findings were identified.

1R18 Plant Modifications

Temporary Modification

a. Inspection Scope

The inspectors reviewed temporary modification, TM-S1-16253, on Unit 1 feedwater temperature sensor 1-FW-RTD-111A, which provided the feedwater temperature input to the plant computer for use in computing the plant calorimetric. This temporary modification removed the temperature indication, 1-FW-TI-154A, and installed an equivalent RTD to 1-FW-RTD-111A in its place. It also removed the cable attached to 1-FW-RTD-111A and relocated it to the new RTD. The inspectors reviewed the temporary modification to verify that it did not affect system operability or availability as described by the TS and UFSAR. In addition, the inspectors verified that the temporary modification was in accordance with CM-AA-TCC-204, "Temporary Configuration Changes," Revision 2, and for the related work package, that adequate controls were in place, procedures and drawings were updated, and post-installation tests verified the operability of the affected systems.

b. Findings

No findings were identified.

1R19 Post Maintenance Testing

a. Inspection Scope

The inspectors reviewed seven post maintenance test procedures and/or test activities for selected risk-significant mitigating systems listed below, to assess whether: (1) the effect of testing on the plant had been adequately addressed by control room and/or engineering personnel; (2) testing was adequate for the maintenance performed; (3) acceptance criteria were clear and adequately demonstrated operational readiness consistent with design and licensing basis documents; (4) test instrumentation had current calibrations, range, and accuracy consistent with the application; (5) tests were performed as written with applicable prerequisites satisfied; (6) jumpers installed or leads lifted were properly controlled; (7) test equipment was removed following testing; and (8) equipment was returned to the status required to perform in accordance with VPAP-2003, "Post Maintenance Testing Program," Revision 14.

- 2-IPT-CC-NI-N-41, "Nuclear Instrumentation Power Range N-41 Channel Calibration," Revision 4, after the replacement of an isolation amplifier on N-41.
- 1-PT-18.8, "Charging Pump Service Water Performance Test," Revision 38, after SW strainer replacement for the Unit 1 "B" CH/SW pump.

- 0-OPT-EG-009, “#3 Emergency Diesel Generator Major Maintenance Operability Test,” Revision 57 (OTO-4), after #3 EDG major maintenance package.
- 0-MOP-AAC-002, “Return to Service of the AAC Diesel Generator,” Revision 24, after AAC DG governor replacement.
- 0-OSP-VS-011, “Backwashing SW Strainers to Flush Piping in MER-3 and MER-4,” Revision 8 (OTO-1), after SW piping repairs.
- 0-MCM-0607-01, “Manual Duplex Strainer Inspection, Lubrication, and Overhaul,” Revision 3, after mechanical equipment room (MER)-5 SW strainer cleaning and inspection.
- 0-EPM-0701-01, “EDG Service and Inspection,” Revision 20 (OTO-1), following replacement of the rheostat on the #3 EDG motor operated rheostat.

b. Findings

No findings were identified.

1R22 Surveillance Testing

a. Inspection Scope

For the three surveillance tests listed below, the inspectors examined the test procedures, witnessed testing, or reviewed test records and data packages, to determine whether the scope of testing adequately demonstrated that the affected equipment was functional and operable, and that the surveillance requirements of TS were met. The inspectors also determined whether the testing effectively demonstrated that the systems or components were operationally ready and capable of performing their intended safety functions.

In-Service Testing:

- 1-OPT-CS-006, “Containment Spray System MOV Stroke Test,” Revision 13

Surveillance Testing:

- 0-NSP-CW-006, “Canal Level Probe Removal, Inspection, and Cleaning”, Revision 2 (OTO-1)
- 0-MPM-19601-01, “Annual Test of BDB FLEX Equipment,” Revision 4

b. Findings

No findings were identified.

Cornerstone: Emergency Preparedness

1EP2 Alert and Notification System Evaluation

a. Inspection Scope

The inspectors evaluated the adequacy of the licensee’s methods for testing and maintaining the alert and notification system in accordance with NRC Inspection Procedure 71114, Attachment 02, Alert and Notification System Evaluation. The applicable planning standard, 10 CFR Part 50.47(b)(5), and its related 10 CFR Part 50,

Appendix E requirements were used as reference criteria. The criteria contained in NUREG-0654, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants, Revision 1, were also used as a reference.

The inspectors reviewed various documents which are listed in the attachment, interviewed personnel responsible for system performance, and observed aspects of periodic siren maintenance and testing. This inspection activity satisfied one inspection sample for the alert and notification system on a biennial basis.

b. Findings

No findings were identified.

1EP3 Emergency Response Organization Staffing and Augmentation System

a. Inspection Scope

The inspectors reviewed the licensee's Emergency Response Organization (ERO) augmentation staffing requirements and process for notifying the ERO to ensure the readiness of key staff for responding to an event and timely facility activation. The qualification records of key position ERO personnel were reviewed to ensure all ERO qualifications were current. A sample of problems identified from augmentation drills or system tests performed since the last inspection was reviewed to assess the effectiveness of corrective actions.

The inspection was conducted in accordance with NRC Inspection Procedure 71114, Attachment 03, Emergency Response Organization Staffing and Augmentation System. The applicable planning standard, 10 CFR 50.47(b)(2), and its related 10 CFR 50, Appendix E requirements were used as reference criteria.

The inspectors reviewed various documents which are listed in the attachment. This inspection activity satisfied one inspection sample for the ERO staffing and augmentation system on a biennial basis.

b. Findings

No findings were identified.

1EP4 Emergency Action Level and Emergency Plan Changes

a. Inspection Scope

Since the last NRC inspection of this program area, two changes were made to the Radiological Emergency Plan, along with changes to several implementing procedures. The licensee determined that, in accordance with 10 CFR 50.54(q), the Plan continued to meet the requirements of 10 CFR 50.47(b) and Appendix E to 10 CFR Part 50. The inspectors reviewed these changes to evaluate for potential reductions in the effectiveness of the plan. However, this review was not documented in a Safety Evaluation Report and does not constitute formal NRC approval of the changes. Therefore, these changes remain subject to future NRC inspection in their entirety.

The inspection was conducted in accordance with NRC Inspection Procedure 71114, Attachment 04, Emergency Action Level (EAL) and Emergency Plan Changes. The applicable planning standards of 10 CFR 50.47(b), and its related requirements in 10 CFR 50, Appendix E were used as reference criteria.

The inspectors reviewed various documents that are listed in the Attachment to this report. This inspection activity satisfied one inspection sample for the emergency action level and emergency plan changes on an annual basis.

b. Findings

No findings were identified.

1EP5 Maintenance of Emergency Preparedness

a. Inspection Scope

The inspectors reviewed the corrective actions identified through the Emergency Preparedness program to determine the significance of the issues, the completeness and effectiveness of corrective actions, and to determine if issues were recurring. The licensee's post-event after action reports, self-assessments, and audits were reviewed to assess the licensee's ability to be self-critical, thus avoiding complacency and degradation of their emergency preparedness program. Inspectors reviewed the licensee's 10 CFR 50.54(q) change process, personnel training, and selected screenings and evaluations to assess adequacy. The inspectors toured facilities and reviewed equipment and facility maintenance records to assess licensee's adequacy in maintaining them. The inspectors evaluated the capabilities of selected radiation monitoring instrumentation to adequately support EAL declarations.

The inspection was conducted in accordance with NRC Inspection Procedure 71114, Attachment 05, Maintenance of Emergency Preparedness. The applicable planning standards, related 10 CFR 50, Appendix E requirements, and 10 CFR 50.54(q) and (t) were used as reference criteria.

The inspectors reviewed various documents which are listed in the attachment. This inspection activity satisfied one inspection sample for the maintenance of emergency preparedness on a biennial basis.

b. Findings

No findings were identified.

1EP6 Drill Evaluation

.1 May 10, 2016 Emergency Preparedness (EP) Drill

a. Inspection Scope

On May 10, 2016, the inspectors reviewed and observed a licensee EP drill involving a dropped control rod which causes a fuel failure and high RCS radioactivity; a loss of coolant accident with a failed inside recirculation pump; and a flange leak on the inlet

isolation valve of a low head safety inject pump which causes a radioactive release to the environment leading to a general emergency declaration. The inspectors assessed the licensee emergency procedure usage, emergency plan classifications, notifications, and protective actions recommendation development. The inspectors evaluated the adequacy of the licensee's conduct of the drill and post-drill critique performance. The inspectors verified that the drill critique identified drill performance weaknesses and entered these items into the licensee's CAP.

b. Findings

No findings were identified.

.2 June 21, 2016, Emergency Preparedness (EP) Drill

a. Inspection Scope

On June 21, 2016, the inspectors reviewed and observed a licensee EP drill involving high RCS radioactivity due to a fuel failure; loss of both main feed pumps and failure of the reactor to automatically trip; a SG tube rupture; and a SG main steam line break which causes a radioactive release to the environment leading to a general emergency declaration. The inspectors assessed the licensee emergency procedure usage, emergency plan classifications, notifications, and protective actions recommendation development. The inspectors evaluated the adequacy of the licensee's conduct of the drill and post-drill critique performance. The inspectors verified that the drill critique identified drill performance weaknesses and entered these items into the licensee's CAP.

b. Findings

No findings were identified.

4. OTHER ACTIVITIES

Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity, Emergency Preparedness, Public Radiation Safety, and Occupational Radiation Safety

40A1 Performance Indicator (PI) Verification

.1 Safety System Functional Failures

a. Inspection Scope

The inspectors reviewed the licensee's submittals for the Safety System Functional Failures performance indicators for both Unit 1 and Unit 2 (two samples) for the period of April 1, 2015, through March 31, 2016, to assess the accuracy and completeness of the submitted data and whether the performance indicators were calculated in accordance with the guidance contained in NEI 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 7. The inspection was conducted in accordance with NRC Inspection Procedure 71151, "Performance Indicator Verification." The inspectors reviewed the applicable NRC inspection reports and the licensee's event reports, operator logs, station performance indicators, and related CRs.

b. Findings

No findings were identified.

.2 Reactor Coolant System (RCS) Specific Activity and RCS Leak Rate

a. Inspection Scope

The inspectors reviewed the licensee's submittals for the RCS specific activity and RCS leak rate performance indicators for both Unit 1 and Unit 2 for the period of April 1, 2015 through March 31, 2016 (four samples) to assess the accuracy and completeness of the submitted data and whether the performance indicators were calculated in accordance with the guidance contained in NEI 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 7. The inspection was conducted in accordance with NRC Inspection Procedure 71151, "Performance Indicator Verification." The inspectors observed a chemistry technician obtain and analyze an RCS sample. The inspectors also reviewed RCS sample analysis and control room logs of daily RCS leakage, and compared that information to the data reported by the performance indicator.

b. Findings

No findings were identified

.3 Emergency Preparedness Cornerstone

a. Inspection Scope

The inspectors sampled licensee submittals relative to the PIs listed below for the period January 1, 2015, through December 31, 2015. To verify the accuracy of the PI data reported during that period, PI definitions and guidance contained in NEI 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 7, was used to confirm the reporting basis for each data element.

- Drill/Exercise Performance (DEP)
- ERO Readiness
- Alert and Notification System (ANS) Reliability

For the specified review period, the inspectors examined data reported to the NRC, procedural guidance for reporting PI information, and records used by the licensee to identify potential PI occurrences. The inspectors verified the accuracy of the PI for ERO drill and exercise performance through review of a sample of drill and event records. The inspectors reviewed selected training records to verify the accuracy of the PI for ERO drill participation for personnel assigned to key positions in the ERO. The inspectors verified the accuracy of the PI for alert and notification system reliability through review of a sample of the licensee's records of periodic system tests. The inspectors also interviewed the licensee personnel who were responsible for collecting and evaluating the PI data. Licensee procedures, records, and other documents reviewed within this inspection area are listed in the Attachment. This inspection satisfied three inspection samples for PI verification on an annual basis.

b. Findings

No findings were identified.

4OA2 Identification and Resolution of Problems

Daily Reviews of items Entered into the Corrective Action Program:

a. Inspection Scope

As required by NRC Inspection Procedure 71152, "Identification and Resolution of Problems," and in order to help identify repetitive equipment failures or specific human performance issues for follow-up, the inspectors performed a daily screening of items entered into the licensee's CAP. This review was accomplished by reviewing daily CR report summaries and periodically attending daily CR review team meetings.

b. Findings

No findings were identified.

4OA6 Meetings, Including Exit

Exit Meeting Summary

On July 13, 2016, the inspection results were presented to Mr. R. Simmons and other members of his staff, who acknowledged the findings. The inspectors asked the licensee whether any of the material examined during the inspection should be considered proprietary. No proprietary information was identified.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee Personnel

L. Baker, Training Manager
L. Black, Supervisor, Emergency Preparedness
D. Cobb, Manager, Nuclear Oversight
J. Eggart, Manager, Radiation Protection & Chemistry
B. Garber, Supervisor, Station Licensing
M. Haduck, Manager, Outage and Planning
R. Hanson, Manager, Protection Services
R. Johnson, Manager, Operations
L. Lane, Site Vice President
D. Lawrence, Director, Station Safety and Licensing
J. Rosenberger, Director, Station Engineering
R. Scanlan, Manager, Maintenance
R. Simmons, Plant Manager
M. Smith, Manager, Nuclear Organizational Effectiveness
N. Turner, Manager, Nuclear Emergency Preparedness

LIST OF ITEMS OPENED, CLOSED AND DISCUSSED

Opened and Closed

None

LIST OF DOCUMENTS REVIEWED

Section 1R01: Adverse Weather Protection

Procedures

0-AP-10.18, Response to Grid Instability, Rev. 22
0-OP-ZZ-021, Severe Weather Preparation, Rev. 13
0-OSP-ZZ-003, Hot Weather Preparation, Rev. 6
1-OP-26.5, 230 KV Switchyard Voltage, Rev. 18
2-OP-26.5, 500 KV Switchyard Voltage, Rev. 20

Condition Reports

1039758

Work Orders

38103585670

Section 1R04: Equipment Alignment

Procedures

0-OP-49.1B, Service Water System – CR Chillers and Supply Strainers Valve Alignment, Rev. 29
0-OP-AAC-001A, AAC Diesel Generator Systems Alignment, Rev. 12
1-OP-SI-001A, Safety Injection System Alignment, Rev. 19
2-OP-EG-001A, EDG 2 System Alignment, Rev. 13

Condition Reports (*NRC Identified)

*1032301 *1034808 *1034997 *1035859 *1037905 *1033849
*1040054 *1040825

Drawings

11448-FB-038B, Flow/Valve Operating Numbers Diagram Fuel Oil System – Station Blackout Unit 1, Rev. 3
11448-FB-046B SH1, Flow/Valve Operating Numbers Diagram Emergency Diesel Generator #2 Unit 1, Rev. 25
11448-FB-046B SH2, Flow/Valve Operating Numbers Diagram Emergency Diesel Generator #2 Unit 1, Rev. 13
11448-FB-046B SH3, Flow/Valve Operating Numbers Diagram Emergency Diesel Generator #2 Unit 1, Rev. 2
11448-FB-046D SH1, Flow/Valve Operating Numbers Diagram Starting Air System – Station Blackout Unit 1, Rev. 9
11448-FB-046D SH2, Flow/Valve Operating Numbers Diagram Lube Oil System – Station Blackout Unit 1, Rev. 3
11448-FB-046D SH3, Flow/Valve Operating Numbers Diagram Cooling Water System – Station Blackout Unit 1, Rev. 3
11448-FB-046D SH4, Flow/Valve Operating Numbers Diagram Intake Air/Exhaust Sys – Station Blackout Unit 1, Rev. 4
11448-FB-075N, Flow/Valve Operating Numbers Diagram Service Air System – Station Blackout Unit 1, Rev. 5
11448-FB-089A SH1, Flow/Valve Operating Numbers Diagram Safety Injection System – Unit 1, Rev. 61

11448-FB-089A SH2, Flow/Valve Operating Numbers Diagram Safety Injection System – Unit 1, Rev. 57

11448-FM-071D SH1, Flow/Valve Operating Numbers Diagram Circulating and Service Water System – Unit 1, Rev. 70

Section 1R05: Fire Protection

Procedures

0-LSP-FP-045, Fire Extinguisher Annual Maintenance, Rev. 2

0-FS-FP-122, Diesel Generator Room Number 2 Elevation 27 Feet – 6 Inches, Rev. 2

0-FS-FP-211, Emergency Service Water Pump House – Low Level Elevation 18 Feet, Rev. 3

1-FS-FP-124, Unit 1 Switchgear Room Elevation 58 Feet – 6 Inches, Rev. 4

1-FS-FP-127, Unit 1 Cable Spreading Room Elevation 45 Feet – 3 Inches, Rev. 5

2-FS-FP-124, Unit 2 Switchgear Room Elevation 58 Feet – 6 Inches, Rev. 4

2-FS-FP-127, Unit 2 Cable Spreading Room Elevation 45 Feet – 3 Inches, Rev. 4

Condition Reports (*NRC Identified)

*1034057 *1033725 1033840

Drawings

11448-FAR-206 SH 1, Equipment Location – Appendix ‘R’ Service Building Plan – EL 58’ – 0” Unit 1, Rev. 16

11448-FAR-206 SH 2, Equipment Location – Appendix ‘R’ Service Building Plan – EL 42’ – 0”, 45’ – 3”, 47’ – 0” Unit 1, Rev. 15

11448-FAR-206 SH 6, Equipment Location – Appendix ‘R’ Service Building Part. Plan – EL 27’ – 0” Unit 1, Rev. 8

Section 1R11: Licensed Operator Regualification Program

Procedures

OP-AA-106, Infrequently Conducted or Complex Evolutions, Rev. 9

1-E-0, Reactor Trip or Safety Injection, Rev. 71

1-E-1, Loss of Reactor or Secondary Coolant, Rev. 43

1-E-2, Faulted Steam Generator Isolation, Rev. 20

1-E-3, Steam Generator Tube Rupture, Rev. 51

1-OSP-EP-002, Generator Reactive Power Capability Testing, Rev. 7

2-OPT-SI-005, LHSI Pump Test, Rev. 33

Work Orders

38103652303

Section 1R12: Maintenance Effectiveness

Procedures

ER-AA-MRL-10, Maintenance Rule Program, Rev. 10

ER-AA-MRL-100, Implementing Maintenance Rule, Rev. 10

Condition Reports

1026038 1029109 1029129 1029765 1030247 1030874

1030874

Other Documents

EACE CA3026038, CLS Relay 1-LM-RLY-100D5 unreliable contact, 4/06/16
 EACE CA3027045, Unit 1 "J" Bus DV Relay Failure, 4/20/16
 EE-0385, 4160V Undervoltage Relays, Types SLV and NGV, CSA, 10/24/95
 PIR1005062, Surry Maintenance Rule Program (a)(3) Periodic Assessment, 11/13/15

Section 1R13: Maintenance Risk Assessments and Emergent Work ControlProcedures

0-OP-ZZ-021, Severe Weather Preparation, Rev. 13
 ARP 2K-A8, UPS System 2A Trouble, Rev. 6

Condition Reports

1037363 1033975

Other Documents

EOOS Schedulers Risk Evaluation for Surry Power Station, April 7, 2016
 EOOS Schedulers Risk Evaluation for Surry Power Station, April 14, 2016
 EOOS Schedulers Risk Evaluation for Surry Power Station, April 25, 2016
 EOOS Schedulers Risk Evaluation for Surry Power Station, May 9, 2016
 EOOS Schedulers Risk Evaluation for Surry Power Station, June 13, 2016
 EOOS Schedulers Risk Evaluation for Surry Power Station, June 22, 2016
 EOOS Schedulers Risk Evaluation for Surry Power Station, June 30, 2016

Section 1R15: Operability Determinations and Functionality AssessmentsProcedures

0-EPM-0701-01, EDG Service and Inspection, Rev. 20 (OTO-1)
 0-OP-EG-001, Number 3 Emergency Diesel Generator Operating Procedure, Rev. 55

Drawings

11448-CBM-071A-5 SH 1, ISI Classification Boundary DWG Interval – 5 Circulating and Service
 Water System Unit 1, Rev. 0

Condition Reports

1032761	1032866	1033107	1037888	1038630	1039764
1040062	1040499	1040626	1040684		

Work Orders

38103729483	38103736428	38103736432
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Other Documents

CA 3032583, Pump 1-FP-P-2 started at a lower pressure than allowed by acceptance criteria
 EE-0724, Canal Level Probe Channel Statistical Accuracy Calculation, Rev. 1
 ETE-CEE-2014-1008, Scaling and Recommended Setpoints for the Model FLT93S Canal Level
 Probes for Surry Power Station, Rev. 0
 ETE-SU-2014-0070, Evaluation of Missing Hanger 3 on Line 3"-WS-56-136 (1-SW-3)
 ETE-SU-2016-0023, Underwater Scaffolding in Unit 2 'B' Circulating Water Bay, Rev. 0
 Ohmite Manufacturing Company Description of Bushings and Shafts for Small Rheostats,
 Rev. 0

S1-16-254, Adjustment to the 1-CW-LS-102 failure alarm setpoint, Rev. 0
S1-16-257, Defeat 1-RC-TE-1432A, Rev. 0
Troubleshooting Procedure for #3 EDG Voltage Regulator, 6/21/16

Section 1R18: Plant Modifications

Procedures

0-MCM-1918-01, On-Line Leak Repairs, Rev. 24
1-OPT-RX-004, Reactor Power Calorimetric Using Feed Flow with PCS Out of Service (Manual), Rev. 31

Work Orders

38103722854

Other Documents

TM S1-16-253, Unit 1 Feedwater Temperature Sensor 1-FW-RTD-111A, Rev. 0

Section 1R19: Post Maintenance Testing

Procedures

0-EPM-0701-01, EDG Service and Inspection, Rev. 20 (OTO-1)
0-MOP-AAC-002, Return to Service of the AAC Diesel Generator, Rev. 24
0-OP-AAC-001, AAC Diesel Generator Operation, Rev. 28 (OTO 1)
0-OP-EG-001, Number 3 Emergency Diesel Generator Operating Procedure, Rev. 55
0-OP-SW-002, Emergency Service Water Pump Operation, Rev. 46
0-OPT-EG-009, Number 3 Emergency Diesel Generator Major Maintenance Operability Test, Rev. 57 (OTO 4)
0-OSP-VS-011, Backwashing SW Strainers to Flush Piping in MER-3 and MER-4, Rev. 8 (OTO-1)
0-MCM-0607-01, Manual Duplex Strainer Inspection, Lubrication, and Overhaul, Rev. 3
1-MOP-SW-001, Charging Pumps Service Water Pumps Removal from and/or Return to Service, Rev. 6
2-IPT-CC-NI-N-41, Nuclear Instrumentation Power Range N-41 Channel Calibration, Rev. 4

Condition Reports

1033742	1033753	1035341	1035704	1035729	1035803
1035818	1035898	1040499	1040684		

Work Orders

38102200457	38103500881	38103559257	38103668294
38103695535	38103672764	38103717019	38103732129

Other Documents

ETE-SU-2015-1004, MER-3 Chiller Revised Service Water Operating Parameters, Rev. 0

Section 1R22: Surveillance TestingProcedures

0-MPM-19601-01, Annual Test of BDB FLEX Equipment, Rev. 4
 0-NSP-CW-006, Canal Level Probe Removal, Inspection, and Cleaning, Rev. 2 (OTO 1)
 1-OPT-CS-006, RWST Chemical Addition Tank and Containment Spray System MOV Stroke Test, Rev. 13
 WM-AA-10, Work Management, Rev. 1

Drawings

11448-FM-084A SH2, Flow/Valve Operating Numbers Diagram Containment Spray System Unit 1, Rev. 52
 11448-FM-084A SH3, Flow/Valve Operating Numbers Diagram Containment Spray System Unit 1, Rev. 43

Condition Reports

1032739 1040170

Work Orders

38102256378 38103505844 38103665859 38103715884

Section 1EP2: Alert and Notification System EvaluationProcedures

Surry Power Station Emergency Plan, Rev. 62
 0-LSP-EW-001, Early Warning System Polling Functional Test, Rev. 15
 0-LSP-EW-002, Early Warning System Siren Activation Monitoring, Rev. 11
 0-LSP-EW-003, Early Warning System Siren Quarterly Inspection, Rev. 1
 0-LSP-EW-004, Early Warning System Siren Quarterly Remote Activation Panel Inspection, Rev. 1
 0-LSP-EW-007, Early Warning System Polling Functional Test (Innsbrook), Rev. 1
 0-LSP-EW-008, Early Warning System Siren Annual Inspection, Rev. 1

Records and Data

Surry Power Station Site-Specific Offsite Radiological Emergency Preparedness Alert Notification System Quality Assurance Verification Final Report, dated 9/30/87
 0-LSP-EW-003, Early Warning System Siren Quarterly Inspection, dated 3/2/15, 9/3/15, 12/8/15, & 3/1/16
 0-LSP-EW-004, Early Warning System Siren Quarterly Remote Activation Panel Inspection, dated 3/2/15, 6/8/15, 9/3/15, 12/8/15, 3/1/16
 0-LSP-EW-008, Early Warning System Siren Annual Inspection, dated 6/8/15

Corrective Action Documents (Condition Reports)

CR 0571097, Siren #47 failed to poll
 CR 0573126, SPS EWS siren polling functional test failure
 CR 0573815, SPS Quarterly siren activation test failure
 CR 0574510, Siren scheduled polling test (#59)
 CR 0578032, SPS EWS siren #51 failed to poll
 CR 0582004, SPS Quarterly siren activation test failure (#51)
 CR 1005240, SPS EWS siren polling test failure (#51)

CR 1007868, Siren # 29 failed to respond in a quarterly test
 CR 1029223, James County siren alarm panel malfunctioning
 CR 1035025, Potential Trend for SPS EWS siren # 51

Section 1EP3: Emergency Response Organization Staffing and Augmentation System Procedures

0-LSP-CO-005, EP Surveillance Procedure, Augmentation Capabilities, Rev. 0
 CPIP-3.1, CERC and EOF Activation, Rev. 28
 CPIP-3.3, Surry LEOF Activation, Rev. 20
 EPIP-3.02, Activation of the Technical Support Center, Rev. 33
 EPIP-3.03, Activation of the Operations Support Center, Rev. 21
 EPIP-3.05, Augmentation of Emergency Response Organization, Rev. 11

Records and Data

Assessment of On-Shift Emergency Response Organization Staffing Capabilities, NEI 10-05, dated 12/20/12
 2015 off-hour Surry Power Station Augmentation Capability Assessment reports: dated 1/22/15, 2/24/15, 3/21/15, 4/13/15, 6/11/15, 7/30/15, 8/30/15, 9/30/15, 10/27/15, 11/19/15, and 12/12/15
 2015 ERO Team Staff Assignments
 Selected ERO Training Records

Corrective Action Documents

CR 0567655, Corporate ERO Availability 2 deep minimum standard not met 12/14 – 12/27/14
 CR 0569153, Corporate ERO Availability 2 deep minimum standard not met 1/11/15 -1/25/15
 CR 0570165, Corporate ERO Availability 2 deep minimum standard not met 1/25 – 2/7/15
 CR 0571169, Corporate ERO Availability 2 deep minimum standard not met 2/8 – 2/21/15
 CR 0572076, Corporate ERO Availability 2 deep minimum standard not met 2/22 – 3/7/15
 CR 0578462, Corporate ERO Availability 2 deep minimum standard not met 5/1 – 5/16/15
 CR 0581012, Corporate ERO Availability 2 deep minimum standard not met 5/31 – 6/13/15
 CR 0582009, An erroneous EAS message was broadcasted after the quarterly SPS Siren Test
 CR 0582134, Corporate ERO Availability 2 deep minimum standard not met 6/14 – 6/27/15
 CR 1008727, ERO positions fell to two deep
 CR 1014656, RP ERO manning requirements not satisfied
 CR 1021984, The fleet EP average indicator declined by 4 points over 6 months
 CR 1028317, Approver was not qualified to approve 10 CFR 50.54(q) evaluations
 CR 1031616, EP documentation discrepancies identified
 CR 1034932, Dose Assessment Team Leader qualification expired in LMS

Section 1EP4: EAL and Emergency Plan Changes

Procedures

Surry Power Station Emergency Plan, Rev. 62
 EP-AA-101, 10 CFR 50.54(q) Change Evaluation, Rev. 6
 EP-AA-102, Revision and Control of Emergency Plan, Emergency Action Levels (Technical Basis and Matrix) and Reference Manual, Rev. 7

Records and Data

SU-15-004, 50.54(q)(3) Screening & Evaluation for Surry Power Station (SPS) Emergency Plan Rev. 61, dated 5/27/15 & 5/29/15
 SU-15-007, 50.54(q)(3) Screening & Evaluation for SPS Emergency Plan Rev. 62 dated 9/21/15 & 11/19/15
 SU-15-012, 50.54(q)(3) Screening & Evaluation for SPS Emergency Plan Rev. 62, dated 9/15/15 & 11/19/15
 SU-15-018, 50.54(q)(3) Screening & Evaluation for CR1003511/CA3003094, dated 10/22/15 & 11/19/15
 SU-15-019, 50.54(q)(3) Screening & Evaluation for SPS Emergency Plan Rev. 62, dated 10/22/15 & 11/19/15
 SU-15-020, 50.54(q)(3) Screening for SPS Emergency Plan Rev. 62, dated 12/3/15
 SU-15-021, 50.54(q)(3) Screening for SPS Emergency Plan Rev. 62, dated 10/23/15
 SU-15-022, 50.54(q)(3) Screening & Evaluation for SPS Emergency Plan Rev. 62, dated 11/5/15 & 12/3/15
 SU-15-023, 50.54(q)(3) Screening & Evaluation for SPS Emergency Plan Rev. 62, dated 11/5/15 & 11/19/15

Corrective Action Documents

CR 0571602, Attention to detail issues regarding 50.54(q) review of E-Plan Revision 60

Section 1EP5: Maintenance of Emergency PreparednessProcedures

Surry Power Station Emergency Plan, Rev. 62
 OP-ZZ-026, Compensatory Measures for Category "A" Equipment Important to Emergency Response, Rev. 1
 PI-AA-100-1004, Self-Assessments, Rev. 12
 PI-AA-200, Corrective Action, Rev. 29
 PI-AA-200-2001, Trending, Rev. 6
 EP-AA-303, Equipment Important to Emergency Response, Rev. 12
 EPIP-1.01, Emergency Manager Controlling Procedure, Rev. 57
 EPIP-2.02, Notification of NRC, Rev. 23
 EPIP-4.03, Dose Assessment Team Controlling Procedure, Rev. 17
 EPIP-4.07, Protective Measures, Rev. 17

Records and Data

Surry Power Station August 3, 2015 Training Drill Management Critique, dated 9/30/15
 Surry Power Station 2015 Station Evacuation Drill Critique Report, dated 9/22/15
 Surry 2015 Evacuation Time Estimate/Population Update Analysis, dated 12/9/15
 Self-Assessment PIR 1021172, Pre-NRC Emergency Preparedness Inspection, dated 4/7/16
 Nuclear Oversight Audit 15-02, Emergency Preparedness, dated 4/21/15
 Nuclear Oversight Audit 16-02, Emergency Preparedness, dated 3/24/16

Corrective Action Documents

CR 0569146, Meteorological Monitoring tower malfunction
 CR 0571602, Attention to detail Issues regarding 50.54(q) review of E-Plan Rev. 60
 CR 0572221, EP Biennial Exercise Inspection NRC observations
 CR 0572398, Wrong references to UFSAR included in Surry EAL technical basis

- CR 0572400, Current plant configuration does not match EAL technical Basis
- CR 0572840, Surry E-Plan does not clearly identify and describe HAB assistance expected
- CR 1008773, Drill data and expected outcomes incorrect
- CR 1009534, Erroneous reading on 1-RM-RMS-135
- CR 1010982, NCAQ submitted to track actions from CR581773
- CR 1021984, Fleet EP Average Indicator declined by four points over six months
- CR 1023883, Wind direction on MET panel failed
- CR 1025342, Primary MET tower wind direction erratic
- CR 1027899, EAL review was not signed by the Commonwealth of Virginia
- CR 1028053, TSC Primary MIDAS computer failed
- CR 1028317, Approver not qualified to approve 50.54(q) evaluations
- CR 1031539, Delta identified between SPS and NAPS record retention for EP
- CR 1034989, CA3024827 response did not adequately describe actions taken
- CR 1035040, EP Baseline Inspection NRC Observations
- CR 1035024, CRs viewed/printed in PAM contained various random symbols in some text fields
- CR 1035025, Potential Trend for SPS EWS siren # 51

Section 1EP6: Drill Evaluation

Procedures

- Emergency Plan, Rev. 62
- EPIP-1.02, Response to Notification of Unusual Event, Rev. 16
- EPIP-1.03, Response to Alert, Rev. 23
- EPIP-1.04, Response to Site Area Emergency, Rev. 23
- EPIP-1.05, Response to General Emergency, Rev. 25
- EPIP-1.06, Protective Action Recommendations, Rev. 11
- EPIP-2.01, Notification of State and Local Governments, Rev. 44
- 1-E-0, Reactor Trip or Safety Injection, Rev. 71
- 1-E-1, Loss of Reactor or Secondary Coolant, Rev. 43
- 1-E-2, Faulted Steam Generator Isolation, Rev. 20
- 1-E-3, Steam Generator Tube Rupture, Rev. 51

Condition Reports

1037133	1037165	1037233	1037235	1037265	1037266
1037276	1037284	1040577	1040586	1040589	1040666
1040688	1040776	1040781	1040815	1040870	1040873

Section 4OA1: Performance Indicator Verification

Procedures

- CH-21.202, Primary Demineralizer Influent: Dissolved Hydrogen Analysis Using Orbisphere Hydrogen Analyzer and Model 31250 Sensor, Rev. 9
- EP-AA-103, Emergency Preparedness Performance Indicators, Rev. 4
- ER-AA-SPI-101, Implementation of the Consolidated Data Entry (CDE) Reporting for Mitigating System Performance Index (MSPI), Rev. 0

Condition Reports

0571335	1031616
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Other Documents

1Q/2016 Performance Indicators – Surry 1 and 2 – Safety System Functional Failures, 06/01/16

1Q/2015 Performance Indicators – Surry 1 and 2 – Reactor Coolant System Activity, 06/01/16

1Q/2015 Performance Indicators – Surry 1 and 2 – Reactor Coolant System Leakage, 06/01/16

DEP opportunities documentation for 1st, 2nd, 3rd, and 4th quarters 2015

Siren test data for 1st, 2nd, 3rd, and 4th quarters 2015

Drill and exercise participation records of ERO personnel for 1st, 2nd, 3rd, and 4th quarters 2015

NEI 99-02, Regulatory Assessment Performance Indicator Guideline, Rev. 7

SU-2014-0082, MSPI Basis Document, Rev. 0

Unit 1 Control Room Narrative Log, 04/01/15 – 03/31/16

Unit 2 Control Room Narrative Log, 04/01/15 – 03/31/16

Unit 1 and Unit 2 RCS Specific Activity Results, 04/01/15 – 03/31/16