



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

August 9, 2018

Ernest J. Kapopoulos, Jr.
Site Vice President
H. B. Robinson Steam Electric Plant
Duke Energy Progress, LLC
3581 West Entrance Road, RNPA01
Hartsville, SC 29550

SUBJECT: H. B. ROBINSON STEAM ELECTRIC PLANT – NUCLEAR REGULATORY
COMMISSION INTEGRATED INSPECTION REPORT 05000261/2018002

Dear Mr. Kapopoulos:

On June 30, 2018, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your H. B. Robinson Steam Electric Plant, Unit 2. On July 24, 2018, the NRC inspectors discussed the results of this inspection with Mr. John Krakuszeski and other members of your staff. On August 6, 2018, the inspectors updated the results of the inspection with Mr. John Krakuszeski and other members of your staff. The results of this inspection are documented in the enclosed report.

The inspectors did not identify any finding or violation of more than minor significance.

This letter, its enclosure, and your response (if any) will be made available for public inspection and copying at <http://www.nrc.gov/reading-rm/adams.html> and at the NRC Public Document Room in accordance with 10 CFR 2.390, "Public Inspections, Exemptions, Requests for Withholding."

Sincerely,

/RA/

Randall A. Musser, Chief
Reactor Projects Branch 3
Division of Reactor Projects

Docket Nos.: 50-261
License Nos.: DPR-23

Enclosure:
IR 05000261/2018002

cc Distribution via ListServ

E. Kapopoulos

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COMMISSION INTEGRATED INSPECTION REPORT 05000261/2018002
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DATE	8/8/2018	8/8/2018	8/7/2018	8/7/2018	8/9/2018	8/9/2018

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U.S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket No: 50-261

License No: DPR-23

Report No: 05000261/2018002

Enterprise Identifier: I-2018-002-0061

Licensee: Duke Energy Progress, LLC

Facility: H. B. Robinson Steam Electric Plant, Unit 2

Location: 3581 West Entrance Road
Hartsville, SC 29550

Dates: April 1, 2018 through June 30, 2018

Inspectors: J. Rotton, Senior Resident Inspector
A. Beasten, Resident Inspector
A. Butcavage, Reactor Inspector (Section 71111.07)

Approved by: Randall A. Musser, Chief
Reactor Projects Branch 3
Division of Reactor Projects

Enclosure

SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring licensee's performance by conducting a baseline inspection at H. B. Robinson Steam Electric Plant, Unit 2, in accordance with the Reactor Oversight Process. The Reactor Oversight Process is the NRC's program for overseeing the safe operation of commercial nuclear power reactors. Refer to <https://www.nrc.gov/reactors/operating/oversight.html> for more information.

List of Findings and Violations

None

Additional Tracking Items

None

PLANT STATUS

Unit 2 began the inspection period at rated thermal power. On April 27, 2018, the unit reduced power to 48 percent to conduct main turbine valve testing and returned to 100 percent power during the evening of April 27, 2018. On June 14, 2018, a unit shutdown to Mode 4 was initiated to conduct a planned Low Pressure (LP) Turbine outage to replace a cracked LP turbine blade. The unit was taken offline June 14, 2018, and reached Mode 4 early June 15. On June 20, 2018, the reactor was restarted following replacement of the turbine blade. The unit was returned to rated thermal power on June 22, 2018, and remained at or near rated thermal power for the remainder of the inspection period.

INSPECTION SCOPES

Inspections were conducted using the appropriate portions of the inspection procedures (IPs) in effect at the beginning of the inspection unless otherwise noted. Currently approved IPs with their attached revision histories are located on the public website at <http://www.nrc.gov/reading-rm/doc-collections/insp-manual/inspection-procedure/index.html>. Samples were declared complete when the IP requirements most appropriate to the inspection activity were met consistent with Inspection Manual Chapter (IMC) 2515, "Light-Water Reactor Inspection Program - Operations Phase." The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel to assess licensee performance and compliance with Commission rules and regulations, license conditions, site procedures, and standards."

REACTOR SAFETY

71111.01 – Adverse Weather Protection (1 Sample)

The inspectors evaluated equipment and procedure changes that potentially affect the operation or reliability of offsite and alternate AC power systems for Summer Readiness during the period of May 6-13, 2018.

71111.04 - Equipment Alignment

Partial Walkdown (4 Samples)

The inspectors evaluated system configurations during partial walkdowns of the following systems/trains:

- (1) Safety injection pump 'C' while 'A' safety injection pump was out of service for emergent weld repair on a component cooling water line on April 2, 2018
- (2) Component cooling water pumps 'A' and 'C' while 'B' component cooling water was out of service for planned valve replacement on May 1, 2018
- (3) Containment spray pump 'A' while containment spray pump 'B' was out of service for planned maintenance on May 15, 2018
- (4) Instrument air compressors 'A', 'D' and the primary air compressor while the 'B' instrument air compressor was out of service for a planned valve replacement on May 16, 2018

71111.05AQ - Fire Protection Annual/Quarterly

Quarterly Inspection (5 Samples)

The inspectors evaluated fire protection program implementation in the following selected areas:

- (1) Fire Zone 3 – Safety Injection Pump Room on May 2, 2018
- (2) Fire Zone 5 – Component Cooling Pump Room on April 30, 2018
- (3) Fire Zone 6 – Auxiliary Feedwater Pump Room on May 2, 2018
- (4) Fire Zone 1 – ‘B’ Emergency Diesel Generator Room on May 16, 2018
- (5) Fire Zone 21 – Rod Equipment Room on May 16, 2018

Annual Inspection (1 Sample)

The inspectors evaluated fire brigade performance during a fire drill on May 25, 2018.

71111.06 – Flood Protection Measures

Cables (1 Sample)

The inspectors evaluated cable submergence protection in:

- (1) H568-SA and H569-SA on May 29, 2018
- (2) H574-SB and H575-SB on May 29, 2018

71111.07 - Heat Sink Performance

Heat Sink (Triennial) (3 Samples)

The inspectors evaluated heat exchanger/sink performance on the following components from June 18 to June 22, 2018:

- (1) Heat Exchangers, Cooled by SW, Section 02.02b
 - Emergency Diesel Generator (EDG) Lube Oil Cooler and Jacket Water Heat Exchanger
 - Steam Driven Auxiliary Feedwater Pump (SDAFW), Lube Oil Cooler
 - Containment Fan Coolers, HVH-1, HVH-2, HVH-3 and HVH-4
- (2) Heat Exchanger, Closed Loop or Air Cooled, Section 02.02c
 - Residual Heat Removal Heat Exchangers
 - Shut Down Diesel Generator, Air Cooling System
- (3) Heat Sink, Section 02.02d
 - Service Water Pumps A and B (Sections 02.02d, #5, (a), (c) and (d))
 - North Intake Bay Area (Sections 02.02d, #7, (a), (b) and (c))
 - Plant Discharge Canal Weir

71111.11 - Licensed Operator Requalification Program and Licensed Operator Performance

Operator Requalification (1 Sample)

The inspectors observed an operator requalification simulator training scenario administered to an operating crew on June 27, 2018, involving multiple failures leading to entry into abnormal operating procedures followed by emergency operating procedures.

Operator Performance (1 Sample)

The inspectors observed and evaluated performance of OP-105, "Maneuvering the Plant when Greater than 25% Power," for a reactor down power to 48 percent on April 27, 2018.

71111.12 - Maintenance Effectiveness

Routine Maintenance Effectiveness (2 Samples)

The inspectors evaluated the effectiveness of routine maintenance activities associated with the following equipment and/or safety significant functions:

- (1) Weld repair upstream of CC-795H, component cooling water line from 'A' SI pump on April 03, 2018
- (2) Replacement of 5 Eaton AC NBF relays provided by Framatome regarding Robinson specific 10CFR21 report from Framatome on June 18, 2018

Quality Control (QC) (1 sample)

The inspectors evaluated the quality control activities between April 19 and May 3, 2018 associated with the replacement of the in-core nuclear instrument detector system power supply.

71111.13 - Maintenance Risk Assessments and Emergent Work Control (4 Samples)

The inspectors evaluated the risk assessments for the following planned and emergent work activities:

- (1) Green risk for emergent welding to repair leak on component cooling water system line on April 6, 2018
- (2) Green risk for reactor down power to less than 50 percent RTP for turbine valve testing on April 27, 2018
- (3) Green risk for 'A' CCW pump lube oil sample and performance of MST-004, Pressurizer Pressure protection on May 2, 2018
- (4) Green risk for EH filter changeout and CVC-354 valve repair (no normal makeup capability) on May 30, 2018

71111.15 - Operability Determinations and Functionality Assessments (5 Samples)

The inspectors evaluated the following operability determinations and functionality assessments:

- (1) CCW Weld Repair (NCR 2195841) on April 5, 2018
- (2) Improperly stored equipment on plant piping (NCR 02198973) on April 19, 2018
- (3) 'C' safety injection pump inboard pump bearing housing cap (NCR 02209871) on May 30, 2018
- (4) 22 installed Eaton AC NBF relays subject of 10CFR21 report from Framatome (NCR 02210482) on June 4, 2018
- (5) Damaged CCW pipe support supplying excess letdown heat exchanger in Containment (NCR 02213270) on June 15, 2018

71111.18 - Plant Modifications (1 Sample)

The inspectors evaluated the following temporary or permanent modifications:

- (1) EC 412189, R, EE, PQL3, 9320025873, Power Supply, Acopian, KB/JEL Power Supply for INC-READOUT-PS2 (replacement of the in-core nuclear instrument detector system power supply)

71111.19 - Post Maintenance Testing (6 Samples)

The inspectors evaluated the following post maintenance tests:

- (1) OP-202, Fill and vent on SI pump 'A' following planned maintenance, Rev. 99 on April 2, 2018
- (2) OP-306, Fill and vent on CCW pump 'B' following planned valve replacement, Rev. 75 on May 2, 2018
- (3) OST-201-1, MDAFW System Component Test – Train A, Rev. 38 after Limitorque® grease inspection on V2-16A on May 8, 2018
- (4) MST-I-RCS-FLW-CH I, RCS Flow 414, 424 and 434 Channel Operational Test Protection Channel I (Red), Rev. 3 on June 22, 2018
- (5) OP-905, Instrument and Station Air System, Rev. 128, Test B instrument air compressor in service following planned maintenance on May 16, 2018
- (6) OST-353-2, Containment Spray Component Test – Train 'B', Rev. 39, Run B containment spray pump following pump and motor lubrication planned maintenance on May 16, 2018

71111.20 - Refueling and Other Outage Activities (1 Sample)

The inspectors evaluated activities during a mid-cycle turbine blade replacement maintenance outage (R2M31A) from June 14 to June 21, 2018. The inspectors completed inspection sections 03.01a, 03.01c, 03.01d.4, 03.01d.6, and 03.01e during this outage.

71111.22 - Surveillance Testing

The inspectors evaluated the following surveillance tests:

Routine (3 Samples)

- (1) OST-011, Quarterly Control Rod Exercise, Rev. 41 on May 3, 2018
- (2) MST-007, Reactor Coolant Low-Temperature Overpressure Protection Channel 502 System Test, Rev. 29 on June 7, 2018
- (3) MST-I-RCS-FLW-CH II, RCS Flow 415, 425 and 435 Channel Operational Test Protection Channel I (White), Rev. 3 on May 16, 2018

In-service (1 Sample)

- (1) OST-103, CVC-619 Check Valve Test, Rev. 3 on May 10, 2018

71114.06 – Emergency Preparedness

The inspectors observed and evaluated the Emergency Preparedness drill performed on May 23, 2018.

OTHER ACTIVITIES – BASELINE

71151 - Performance Indicator Verification

The inspectors verified licensee performance indicators submittals listed below for the period from April 1, 2017, through March 31, 2018. (3 Samples)

- (1) Unplanned Scrams per 7000 hours
- (2) Emergency AC Power
- (3) Safety System Functional Failures

71152 - Problem Identification and Resolution

Semiannual Trend Review (1 Sample)

The inspectors reviewed issues related to transient combustibles and fire protection.

In-Depth Reviews (1 Sample)

The inspectors reviewed the licensee's implementation of its corrective action program related to the following issue. The issue was selected due to its repetitive nature and the known industry issues with components of this type.

Spent Fuel Pit Cooling Pump 'A' breaker 52/13C found in bound condition (NCR 02106189), which detailed actions taken to address inertia latch binding on a Westinghouse DB-50 type breaker.

OTHER ACTIVITIES – TEMPORARY INSTRUCTIONS, INFREQUENT AND ABNORMAL

60855.1 – Operation of an Independent Spent Fuel Storage Installation

The inspectors performed a walkdown of the onsite ISFSIs on June 28, 2018. The inspectors reviewed changes made to the ISFSI program and procedures, including associated 10 CFR 72.48, “Changes, Tests, and Experiments,” screens and evaluations to verify that changes made were consistent with the license or certificate of compliance. The inspectors also reviewed surveillance records to verify that daily surveillance requirements were performed as required by Technical Specifications. This inspection constitutes one operation of an ISFSI sample.

INSPECTION RESULTS

Observation	71152 Semiannual Trend Review
<p>From January 1, 2018, through June 30, 2018, the inspectors noticed a potential adverse trend in housekeeping, specifically as it relates to fire protection practices. Specifically during this timeframe, 12 NCRs were initiated related to transient combustible control issues, including several identified by NRC residents (NCR 02199850, Staged Mobile Enclosure, NCR 02184856, Housekeeping Issues identified in RHR Pit, and NCR 02215967, Barricade Stanchions Stored Improperly). Other examples of transient combustible control issues identified by the licensee include: NCR 02194318, Housekeeping in EDG-B Room; NCR 2201275, NOS Audit: Transient combustible in fire zone 7; NCR 02175365, Combustible material in a scrap metal container in RCA tool; NCR 02185156, Traffic Cone left in Transient Combustible Control Zone. All noted instances were of minor significance, and all improperly stored transient combustible materials were removed from the impacted areas, however there does appear to be a gap in understanding of the requirements of AD-EG-ALL-1520, Transient Combustible Control.</p> <p>The residents also noticed a potential gap in understanding of hot work permits (NCR 02197607, Requirements of AD-EG-ALL-1521 HOT WORK PERMITS not met).</p> <p>Additionally, the annual fire drill observed by the inspectors was graded as unsatisfactory due to critical drill objectives not being met (NCR 02209098, Fire Drill Unsatisfactory 5/25/2018). The drill was re-performed and determined to be satisfactory.</p>	

EXIT MEETINGS AND DEBRIEFS

The inspectors verified no proprietary information was retained or documented in this report.

On July 24, 2018, the inspectors presented the quarterly resident inspector inspection results to Mr. John Krakuszeski, and other members of the licensee staff. On August 6, 2018, a re-exit meeting was conducted with Mr. John Krakuszeski and other members of the licensee’s staff to discuss the final results of the inspection.

On June 21, 2018, the Heat Sink inspection team presented their inspection results to Mr. Jim Kammer, Engineering General Manager, and other members of the licensee staff.

DOCUMENTS REVIEWED

71111.01: Adverse Weather Protection

Summer Readiness

AOP-026, Grid Instability, Rev. 17
AOP-031, Operation with High Switchyard Voltage, Rev. 17
OMM-021, Operation During Adverse Weather Conditions, Rev. 51
PLP-118, Hot Weather Operations, Rev. 12
OST-021, Daily Surveillances, Rev. 48, for May 13, 2018

71111.04: Equipment Alignment

Partial Walkdown

OMM-009, Locked Valve List, Rev. 106
5379-376, Component Cooling Water System Flow Diagram, Sheet 1, Rev. 44
OP-306, Component Cooling Water System, Rev. 75
5379-1082, Safety Injection System Flow Diagram, Sheet 2, Rev. 55
OP-202, Safety Injection and Containment Vessel Spray System, Rev. 99
5379-1082, Safety Injection System Flow Diagram, Sheet 3, Rev 28
OP-905, Instrument and Station Air System, Rev. 128
G-190200, Instrument & Station Air System Flow Diagram, Sheet 2, Rev 36
G-190200, Instrument & Station Air System Flow Diagram, Sheet 4, Rev 25
G-190200, Instrument & Station Air System Flow Diagram, Sheet 10, Rev 13

71111.05: Fire Protection

Quarterly Inspection

AD-EG-ALL-1520, Transient Combustible Control, Rev. 9
OMM-002, Fire Protection Manual, Rev. 51
OMM0-20, Fire Protection List, Rev. 11
CSD-RNP-PFP-AB2-0226-001, Auxiliary Building Elev 226 Pre-Fire Plan, Rev. 0
CSD-RNP-PRP-TB2-0226-001, Turbine Building Elev 226 Pre-Fire Plan, Rev. 0
CSD-RNP-PFP-AB2-0246-001, Auxiliary building Elev 246 Pre-Fire Plan, Rev. 0
FP-010, Housekeeping Controls, Rev. 36
FP-012, Fire Protection Systems Minimum Equipment and Compensatory Actions, Rev. 25
FP-013, Fire Protection Systems Surveillance Requirements, Rev. 14

Annual Inspection

AD-OP-ALL-0207, Fire Brigade Administrative Controls, Rev. 1
FP-001, Fire Emergency, Rev. 70
AOP-041, Response to the Fire Event, Rev. 11
RNP Fire Protections Scenario 19, Aux. Bldg. 2nd Level, Control Room HVAC Room, Rev. 4,
5/10/2018

71111.06: Flood Protection

Cables

TE-MN-ALL-0002, Foreign Material Exclusion Level and Controls Screening, Rev. 1

AD-EG-ALL-1615, Cable Aging Management Program – Implementation, Rev. 1
WO 20200826, Work item to clean and inspect hand holes H574-SB and H575-SB, 5/29/2018
WO 20200827, Insp duct bank for diesel fuel oil transfer pmp cable, 5/29/2018
NCR 02095873, CAMP PMID's Restoration Plan & SEC Codes, 1/30/2017

71111.07 - Heat Sink Performance

Work Orders

PM 00011387, Preventative Maintenance Work Order, Replace Valve V6-16C, Every 6 RFOs, for Single Point Vulnerability (SPV), Service Water Isolation to Turbine Building, Rev. 2
12263757-01, Replace V6-16C for SPV Service Water Isolation to Turbine Building, 3/5/17
13403245-01, Clean and Inspect the Steam driven AFW Pump Lube Oil Cooler, 3/10/16
13418872-01, RNP Dam, 3 Year PM to Inspect Discharge Canal and Outfall, Completed 11/30/16
20106474, Minor Maintenance on the Lake Robinson Dam, Repair Minor Sloughing on Downstream Slope, 4/26/2018
20106477, Minor Maintenance on the Lake Robinson Dam, Repair Small Depressions Near the Spillway Structure, 4/26/18
20106478, Minor Maintenance on the Lake Robinson Dam, Cut and Remove Brush, Woody Vegetation, and Trees Less Than 4" Diameter, 4/26/18
20212400, Verify Structural Inspection In Accordance With (IAW) AD-EG-ALL-1214, Intake South Bay, Due 9/15/18
20212408, Verify Structural Inspection IAW AD-EG-ALL-1214, Intake North Bay, Due 9/15/18
20212409, Verify Structural Inspection IAW AD-EG-ALL-1214, Intake Middle Bay, Due 9/15/18

Action Requests

A/R 02105792, Spare EDG Heat Exchanger, Baseline Eddy Current, 3/7/17
A/R 02200515, South Carolina Department of Health and Environmental Control (DHEC) Noted Maintenance Deficiencies at the Lake Robinson Dam, 4/23/2018

Procedures

CM-M-GNRL-VLV-001, Allis Chalmers Streamseal Butterfly Valve Maintenance, Rev. 2
CM-201, Safety Related and Non-Safety Related Heat Exchanger Maintenance, Rev. 57
CM-632, Emergency Diesel Generator, (EDG) Heat Exchanger Maintenance, Rev. 23
CP-001, Chemistry Monitoring Program, Rev. 129
CP-SEC-308, Chlorination, Rev.11
GP-007, Plant Cooledown from Mode 3 to Mode 5, Attachment 1, 2/25/17
OP-402, Operating Procedure for Auxiliary Feedwater System, Section 6.2, Rev.101
OST-021, Daily Surveillances, Rev. 48
OST-206, Comprehensive Flow Test for Steam Driven Auxiliary Feedwater Pump, Rev. 063, Section 7.5 and Attachment 4, Completed 4/9/17
OST-401-1, EDG Slow Speed Start Test, Rev. 065, Attachment 2, Completed 5/7/18
OST-701-6, Manual Valve Cycling Inservice Test, Section 7.4, Rev. 17
PM-008, EDG Inspection Number 2 (24 Months) Rev. 75
PM-438, HVH Motor Cooler and Fan Cooler Cleaning and Inspection, Rev. 12
TMM-044, Heat Exchanger NDE Inspection Process, Rev.1

Drawings

G-190811, Circulating Water System Discharge Canal Plan, Sheet 1, Rev. 4

G-190813, Circulating Water System Discharge Canal Plan, Sheet 3, Rev. 4
 G-190814, Circulating Water System Discharge Canal Profile, Sections and Details, Rev. 3
 G-190816, Circulating Water System Discharge Canal Outlet, STR-MAS, Rev. 4
 G-190818, Circulating Water System Discharge Canal Outlet, STR-Reinforcement, Rev. 3
 G-190199, Service and Cooling Water System Flow Diagram, Sheet 1 of 13, Rev. 83
 G-190199, Service and Cooling Water System Flow Diagram, Sheet 2 of 13, Rev. 71
 G-190199, Service and Cooling Water System Flow Diagram, Sheet 4 of 13, Rev. 50
 G-190199, Service and Cooling Water System Flow Diagram, Sheet 5 of 13, Rev. 50
 G-190199, Service and Cooling Water System Flow Diagram, Sheet 6 of 13, Rev. 52
 G-190199, Service and Cooling Water System Flow Diagram, Sheet 7 of 13, Rev. 40
 G-190199, Service and Cooling Water System Flow Diagram, Sheet 8 of 13, Rev. 34
 G-190199, Service and Cooling Water System Flow Diagram, Sheet 9 of 13, Rev. 60
 G-190199, Service and Cooling Water System Flow Diagram, Sheet 10 of 13, Rev. 47

Other Documents

Carolina Power and Light Letter NLS-90-005, Response to NRC Generic Letter 89-13, 1/26/90
 DBD/R87038/SD03, H. B. Robinson Steam Electric Plant, Unit 2, Design Basis Document
 (DBD) Residual Heat Removal System, Rev. 0
 DBD/R87038/SD04, System DBD, Service Water System, Rev. 12
 DBD/R87038/SD05, System DBD, Emergency Diesel Generating System, Rev. 14
 DBD/R87038/SD32, System DBD, Auxiliary Feedwater System, Rev. 11
 Evaluation 17-01, Inservice Testing (IST) Program Evaluation, System 4060 Service Water,
 Performance Requirements for Service Water Pumps, (SW-PMPs), 2/15/17
 H.B. Robinson, UFSAR, Rev. 27
 HVH 1,2,3,4 Containment Vessel Cooling Unit Flows, OSI PI Snapshot, 6/20/18
 HVH 2, 3, Containment Vessel Cooling Unit Flows, Operator Rounds Data, 6/18/18 thru 6/21/18
 Key Robinson PRA Results, Summary Chart, 8/19/15
 RHR Heat Exchanger, Performance Trend Cooldown Data, 2005 thru 2018
 RNP-M/MECH-1647, Evaluation of SDAFWP LO Cooler Thermal Performance, Calculation No.
 98-144, 2/24/03
 RNP-M/MECH-1649, EDG Heat Exchanger Analysis to Determine Allowable Ultimate Heat Sink
 Temperature, for HBR Unit-2, 8/8/99
 RNP-MIMECH-1747, Review of Waterhammer Loading for GL 96-06, 8/21/02
 RNP-M/MECH-1802, Safety Related Pump Minimum Performance Requirements, 2/22/18
 Service Water Pump Flow Testing Trends, SW Pump "A", "B", "C", "D", Oct. 2016 thru April 2018
 SR-3.6.6.3, H.B. Robinson, Tech Spec Surveillance Requirements, Containment Spray and
 Cooling Systems, Cooling Water Flow Rate Requirements, Amendment 194
 System Health Report, System 4060 Service Water, 1/30/2018

71111.11: Licensed Operator Requalification

Resident Inspector Quarterly Review of Licensed Operator Requalification
 LOCT Simulator Exercise Guide: RNLOC1808R-N-S2, Rev. 0

Resident Inspector Quarterly Review of Licensed Operator Performance in the Actual
 Plant/Main Control Room
 AD-OP-ALL-1000, Conduct of Operations, Rev. 12
 AD-OP-ALL-0203, Reactivity Management, Rev. 8

OMM-001, RNP Conduct of Operations, Rev. 70
OP-105, Maneuvering the Plant when Greater than 25% Power, Rev. 64

71111.12: Maintenance Effectiveness

AD-EG-ALL-1210, Maintenance Rule Program, Rev. 1
AD-WC-ALL-0200, On-Line Work Management, Rev. 12
AD-OP-ALL-0201, Protected Equipment, Rev. 4
OMM-048, Work Coordination and Risk Assessment, Rev. 65
AD-WC-ALL-0410, Work Activity Integrated Risk Management, Rev. 6
WO 20244267, Wet insulation upstream of CC-795H CCW from A SI pump, 4/04/2018
NCR 02199208, Relaying buzzing in Incore Instrument Panel, 04/17/2018
NCR 02200377, 0000412159-000 Install temporary power supply in incore, 5/02/2018
WO 20238161-06, K;INC-READOUT-PS2; Perform 5-hour burn-in for new PS, 5/17/2018
WO 20238161-07, K;INC-READOUT-PS2; Install new power supply, EQVR EC 412189, 5/17/2018
NCR 02210482, RNP Specific Part 21 AC Easton (Framatome) NBF Relays, 6/2/2018
NCR 02211592, Addition to R2M31A of 5 Relay replacements for Part 21, 6/7/2018
WO 20260146-01, 63-AST-1-X(B), Replace Relay due to Part 21 Notification, 6/18/2018
PM-049, BF Type relay Replacement, Rev. 05
MST-011, Reactor Protection Logic Train "A" and "B" at "0" Power, Rev. 38
WO 20260146-02, Perform PMT on Relay 63-AST-1-X(B) per partial MST-011, 6/18/2018

71111.13: Maintenance Risk Assessments and Emergent Work Evaluation

AD-WC-ALL-0200, On-Line Work Management, Rev. 12
AD-WC-ALL-0260, Nuclear Generation Response to High or Low Grid System Load, Rev. 1
AD-OP-ALL-1000, Conduct of Operations, Rev. 12
AD-OP-ALL-0201, Protected Equipment, Rev. 4
PD-EG-ALL-1620, Nuclear Welding Program, Rev. 1
AD-EG-ALL-1521, Hot Work Permits, Rev. 6
OMM-048, Work Coordination and Risk Assessment, Rev. 65

71111.15: Operability Evaluations

Operability and Functionality Review

AD-OP-ALL-0102, Operational Decision Making, Rev. 2
AD-OP-ALL-0105, Operability Determination and Functionality Assessments, Rev. 4
EC 412202, Evaluation of Structural Integrity of 3/4-AC-152N-133A During Leak Upstream of CC-795H from SI Pump "A" Seal Cooler, 05/09/2018
EC 412220, Evaluation of Improperly Stored Equipment on Instrumentation Line to PIC-157, 5/14/2018

71111.19: Post Maintenance Testing

PLP-033, Post Maintenance Testing Program, Rev. 67
NCR 02204301, AFW-V2-16A operator will not go into manual mode, 5/9/2018
NCR 02213250, FC-434, RCS Loop "C" Lo Flow, tripped momentarily, 6/21/2018
WO 20261610, FC-434, RCS Loop "C" Lo Flow, tripped momentarily, 6/22/2018

71111.20: Outage Activities

GP-006-1, Normal Plant Shutdown from Power Operation to Hot Shutdown, Rev. 15
GP-007, Plant Cooldown from Mode 3 to Mode 5, Rev. 107
GP-003, Normal Plant Startup from Hot Shutdown to Critical, Rev. 110
GP-002, Cold Shutdown to Hot Subcritical at No Load Tavg, Rev. 141
AOP-007, Turbine Trip Below P-8, Rev. 17
R2M31A DID Sheet M4F, June 17, 2018
R2M31A M4F Credited Equipment Configuration Form, June 17, 2018
NCR 02213185, AOP-007 entry during Plant Shutdown, June 14, 2018
NCR 02213073, Reactor Coolant Filter Leaking Following Filter Change, June 14, 2018
NCR 02213270, Damaged CCW to Excess Letdown HX pipe support, June 15, 2018

22: Surveillance Testing

OMM-015, Operations Surveillance Testing, Rev. 9

71114.06: Emergency Preparedness

Scenario Manual, RNP Drill #1803, May 23, 2018
AD-EP-ALL-0304, State and County Notifications, Rev. 1
AD-EP-ALL-0802, Conducting Drills and Exercises, Rev. 3
AD-EP-ALL-0803, Evaluation and Critiques of Drills and Exercises, Rev. 3
EPPRO-10, Emergency Preparedness Code of Conduct, Rev. 3
NCR 02208712, Opportunity for Improvement noted during 5/23/18 EP drill, 5/24/2018

71151: Performance Indicator (PI) Verification

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