



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

May 8, 2018

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

**SUBJECT: H. B. ROBINSON STEAM ELECTRIC PLANT – NUCLEAR REGULATORY
COMMISSION INTEGRATED INSPECTION REPORT 05000261/2018001**

Dear Mr. Kapopoulos:

On March 31, 2018, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your H. B. Robinson Steam Electric Plant, Unit 2. On April 10, 2018, the NRC inspectors discussed the results of this inspection with you 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 No.: 50-261
License No.: DPR-23

Enclosure:
IR 05000261/2018001

cc Distribution via ListServ

E. Kapopoulos

3

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U.S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket Nos: 50-261

License Nos: DPR-23

Report Nos: 05000261/2018001

Enterprise Identifier: I-2018-001-0061

Licensee: Duke Energy Progress, Inc.

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

Location: 3581 West Entrance Road
Hartsville, SC 29550

Dates: January 1, 2018 through March 31, 2018

Inspectors: J. Rotton, Senior Resident Inspector
A. Beasten, Resident Inspector
S. Sanchez, Senior Emergency Preparedness Inspector (Sections 71114.02, 71114.03, 71114.04, 71114.05, and 71151)
C. Fontana, Emergency Preparedness Inspector (Sections 71114.02, 71114.03, 71114.04, 71114.05, and 71151)

Approved by: R. 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 operated at or near 100 percent rated thermal power for the entire 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 performed plant status activities described in IMC 2515 Appendix D, "Plant Status" and conducted routine reviews using IP 71152, "Problem Identification and Resolution." 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 reviewed the licensee's preparations to protect risk-significant systems from impending extreme cold weather conditions expected during January 5-7, 2018.

71111.04 - Equipment Alignment

Partial Walkdown (3 Samples)

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

- (1) Steam Driven Auxiliary Feedwater Pump during B Emergency Diesel Generator (EDG) slow speed surveillance run on March 25, 2018
- (2) Charging pumps A and B while charging pump C was out of service for planned maintenance on January 29, 2018
- (3) Service Water Booster Pump (SWBP) A while SWBP B was out of service for rotating assembly replacement on February 27, 2018

Complete Walkdown (1 Sample)

The inspectors evaluated system configurations during a complete walkdown of the Auxiliary Feedwater System.

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 20 - Emergency 480VAC Bus Switchgear Room and Electrical Equipment Area on March 8, 2018
- (2) Fire Zone 16 – Battery Room on March 12, 2018
- (3) Fire Zone 7 – Auxiliary Building Hallway (Ground Floor) on March 1, 2018
- (4) Fire Zone 4 – Charging Pump Room on January 30, 2018
- (5) Fire Zone 25D – Dedicated Shutdown Diesel Generator Building 340 on March 16, 2018

71111.11 - Licensed Operator Requalification Program and Licensed Operator Performance

Operator Requalification (1 Sample)

The inspectors observed and evaluated a graded simulator scenario administered to an operating crew on January 30, 2018.

Operator Performance (1 Sample)

The inspectors observed and evaluated:

- (1) Performance of MST-020, Reactor Protection Logic Train 'A' at Power on March 15, 2018
- (2) Performance of manual and automatic boration activities, and securing Boron Acid Storage Tank recirculation on March 15, 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) Replacement of MCC-24 breakers, Dedicated Shutdown Diesel Bus, due to age and obsolescence on January 23, 2018
- (2) Coupling inspection and grease change on 'A' Motor Driven Auxiliary Feedwater pump on February 5, 2018

71111.13 - Maintenance Risk Assessments and Emergent Work Control (5 Samples)

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

- (1) Elevated Green risk due to scheduled replacement of MCC (Motor Control Center)-24 load breakers for the Dedicated Shutdown Diesel Generator including the circulating oil pump and radiator fan on January 23, 2018
- (2) Crane operation for heavy load lift in the vicinity of Service Water underground piping on March 5, 2018
- (3) Green risk for B SWBP out of service for replacement of the rotating assembly on February 28, 2018
- (4) Green risk for Steam Driven Auxiliary Feedwater pump out of service for planned maintenance on March 13, 2018
- (5) Green risk for cross-train work on 'C' Charging Pump speed control on February 1, 2018

71111.15 - Operability Determinations and Functionality Assessments (5 Samples)

The inspectors evaluated the following operability determinations and functionality assessments:

- (1) Dedicated Shutdown Diesel Generator (DSDG) MCC-24 bus breaker replacement for DSDG enclosure fans (Nuclear Condition Report (NCR) 02148480) on January 23, 2018
- (2) Cable Spread Room penetration not sealed (NCR 02174172 on January 3, 2018)
- (3) Small oil leak at B Emergency Diesel Generator (EDG) bearing oil sight glass (NCR02188517 on March 1, 2018)
- (4) Containment spray pump B small seal leak (NCR 02185273 on February 20, 2018)
- (5) Discovery of maintenance debris and loose scaffold plates abandoned in Residual Heat Removal pump room (NCR 02184856) on February 14, 2018

71111.18 - Plant Modifications (1 Sample)

The inspectors evaluated the following temporary or permanent modifications:

- (1) Engineering Change (EC) 409538, installation of temporary air compressor to support service water strainer operation while permanent instrument air supply piping is replaced.

71111.19 - Post Maintenance Testing (6 Samples)

The inspectors evaluated the following post maintenance tests:

- (1) OST-910, Dedicated Shutdown Diesel Generator monthly surveillance, after replacement of MCC-24 DSDG load breaker replacements on January 24, 2018
- (2) OST-201-1, Motor Driven Auxiliary Feedwater Pump System Component Test – Train 'A' on February 5, 2018
- (3) OST-303-2, Service Water Booster Pump B Test following replacement of rotating assembly on February 28, 2018
- (4) OST-405, TSC/EOF/Security Diesel Generator Operational Test following planned maintenance on January 31, 2018
- (5) OST-202, Steam Driven Auxiliary Feedwater System Component Test following planned maintenance on March 13, 2018

- (6) OST-701-10, Fire Protection System Inservice Valve Test following Limitorque® grease inspection on March 14, 2018

71111.22 - Surveillance Testing

The inspectors evaluated the following surveillance tests:

Routine (4 Samples)

- (1) OST-409-1, EDG 'A' Fast Speed, on February 4, 2018
- (2) MST-020, Reactor Protection Logic Train 'A' at Power, on February 5, 2018
- (3) MST-015, Turbine First Stage Pressure 446 Channel Operational Test Protection Channel III (Blue), on February 1, 2018
- (4) MST-030, 4KV Undervoltage To Reactor Protection Testing, on January 18, 2018

In-service (2 Samples)

- (1) OST-302-1, Service Water Pumps A&B Inservice Test, on January 29, 2018
- (2) OST-908-2, Component Cooling Water Pump A Test, on January 31, 2018

Reactor Coolant System Leak Detection (1 Sample)

OST-051, Reactor Coolant System Leakage Evaluation, on March 25, 2018

71114.02 - Alert and Notification System Testing (1 Sample)

The inspectors evaluated the maintenance and testing of the alert and notification system.

71114.03 - Emergency Response Organization Staffing and Augmentation System (1 Sample)

The inspectors evaluated the readiness Emergency Response Organization.

71114.04 - Emergency Action Level and Emergency Plan Changes (1 Sample)

The inspectors evaluated submitted Emergency Action Level and Emergency Plan changes. This evaluation does not constitute NRC approval.

71114.05 - Maintenance of Emergency Preparedness (1 Sample)

The inspectors evaluated the maintenance of the emergency preparedness program.

OTHER ACTIVITIES – BASELINE

71151 - Performance Indicator Verification

The inspectors verified licensee performance indicators submittals listed below for the period from January 01, 2017, through December 31, 2017. (6 Samples)

- (1) Mitigating Systems Performance Index – Residual Heat Removal System
- (2) Mitigating Systems Performance Index – Cooling Water Support Systems
- (3) RCS Leakage
- (4) EP01: Drill & Exercise Performance
- (5) EP02: Emergency Response Organization Drill Participation
- (6) EP03: Alert & Notification System Reliability

71152 - Problem Identification and Resolution

In-Depth Reviews (1 Sample)

The inspectors reviewed the licensee's implementation of its corrective action program related to the Part 21 wedge pin analysis for RCP Seal Water Return Valve, CVC-381.

EXIT MEETINGS AND DEBRIEFS

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

On April 10, 2018, the inspectors presented the quarterly resident inspector inspection results to Mr. Ernie Kapopoulos, and other members of the licensee staff.

On March 16, 2018, the Emergency Preparedness inspection team presented their inspection results to Mr. John Krakuszeski, and other members of the licensee staff.

DOCUMENTS REVIEWED

71111.01: Adverse Weather Protection

AP-015, Portable Heaters/Heating Devices Issuance and Inspection, Rev. 22
AP-053, Severe Weather Response, Rev. 7
OMM-021, Operation During Adverse Weather Conditions, Rev. 51
OP-925, Cold Weather Operation, Rev. 71
NCR 02174579, FP-1083 is cracked and leaking, 01/02/2018
NCR 02176709, Turbine LO pre-action solenoid valve froze/cracked, 01/11/2018
NCR 02174600, U1 FWB pump B – FP-101 spraying water from gasket, 01/02/2018
NCR 02175513, OST-602, Unit 2 Fire Water flowpath verification, Unsat, 01/08/2018
NCR 02174767, IA dryer “D” trap manual drain line possibly frozen, 01/03/2018
NCR 02193529, Winter Seasonal Weather Roll Up, 03/22/2018

71111.04: Equipment Alignment - Partial Walkdown

OP-903, Service Water System, Rev. 146
OP-402, Auxiliary Feedwater System, Rev. 101
OMM-009, Locked Valve List, Rev. 105
OP-301A, Chemical and Volume Control System Charging Pump ‘A’ Operation, Rev. 1
OP-301B, Chemical and Volume Control System Charging Pump ‘B’ Operation, Rev. 1
5379-685, Sheet 2, Chemical and Volume Control System Purification and Make-up Flow Diagram, Rev. 64
G-190199, Sheet 7, Service & Cooling Water System Flow Diagram, Rev. 40
G-190197, Sheet 4, Feedwater, Condensate & Air Evacuation System Flow Diagram, Rev. 73
G-190196, Sheet 1, Main & Extraction Steam System Flow Diagram, Rev. 62

Complete Walkdown

OP-402, Auxiliary Feedwater System, Rev. 101
G-190196, Sheet 1, Main & Extraction Steam System Flow Diagram, Rev. 62
G-190197, Sheet 4, Feedwater, Condensate & Air Evacuation System Flow Diagram, Rev. 73
G-190197, Sheet 1, Feedwater, Condensate & Air Evacuation System Flow Diagram, Rev. 89
G-190197, Sheet 5, Feedwater, Condensate & Air Evacuation System Flow Diagram, Rev. 3

71111.05: Fire Protection - Quarterly Inspection

AD-EG-ALL-1520, Transient Combustible Control, Rev. 9
FP-010, Housekeeping Controls, Rev. 36
OMM-002, Fire Protection Manual, Rev. 51
CSD-RNP-PFP-AB2-0226-001, Auxiliary Building Elev 226 Pre-Fire Plan, Rev. 0
CSD-RNP-PFP-PA-003, Protected Area Southeast Pre-Fire Plan, Rev. 0
CSD-RNP-PFP-AB2-0246-001, Auxiliary Building Elev 246 Pre-Fire Plan, Rev. 0

71111.11: Licensed Operator Requalification - Resident Inspector Quarterly Review of Licensed Operator Requalification

EOP-E-0, Reactor Trip or Safety Injection, Rev. 8
EOP-E-1, Loss of Reactor or Secondary Coolant, Rev. 6
EOP-ECA-1.1, Loss of Emergency Coolant Recirculation, Rev. 2
AOP-014, Component Cooling Water System Malfunction, Rev. 39

AOP-018, Reactor Coolant Pump Abnormal Conditions, Rev. 32
Scenario Package LOCT Cycle 18-01 – 2018 Exam 13

Resident Inspector Quarterly Review of Licensed Operator Performance in the Actual Plant/Main Control Room

AD-OP-ALL-1000, Conduct of Operations, Rev. 11
AD-OP-ALL-0203, Reactivity Management, Rev. 7
OMM-001, RNP Conduct of Operations, Rev. 70
MST-020, Reactor Protection Logic Train 'A' at Power, Rev. 40
OP-301-1, Chemical and Volume Control System Boration and Dilution Operations, Rev. 67

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-48, Work Coordination and Risk Assessment, Rev. 65
AD-WC-ALL-0410, Work Activity Integrated Risk Management, Rev. 6
WO 20055290, 'A' AFW pump coupling inspection and grease change, 02/05/2018
OST-201-1, MDAFW System Component Test -Train 'A', Rev. 37
WO 20162715-02, Dedicated Shutdown Diesel Generator (DSDG) Lubricating Oil Circulating Pump breaker replacement, 01/23/2018
WO 20162715-04, DSDG Radiator Fan breaker replacement, 01/23/2018
WO 20162715-012, DSDG Air Compressor breaker replacement, 01/23/2018
WO 20162715-014, DSDG 'A' Ventilation Fan breaker replacement, 01/23/2018
EC 404250, MCC-24 MCCBS Replacement – 52/MCC-24(1B), 01/23/2018
EC 404251, MCC-24 MCCBS Replacement – 52/MCC-24(1D), 01/23/2018
EC 404252, Editorial DWG. Revisions: Ref. AR#02018906 and AR#02020047, 01/23/2018
EC 404253, MCC-24 MCCBS Replacement – 52/MCC-24(1F), 01/23/2018
EC 404254, MCC-24 MCCBS Replacement – 52/MCC-24(1H), 01/23/2018
EC 404255, MCC-24 MCCBS Replacement – 52/MCC-24(1K), 01/23/2018
OST-910, Dedicated Shutdown Diesel Generator (Monthly), Rev. 59

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. 11
AD-OP-ALL-0201, Protected Equipment, Rev. 4
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
RNP-M/MECH-1892, System Mission Times, Rev. 2
EC 0000411595, Update EDB and Drawing Per AR 2176792, 03/08/2018
WO 20238706, DG-B-Gen, Small oil leak at gen bearing oil sight glass, 03/07/2018
WO 20231176, CV Spray Pump "B" has a seal leak with dry boric acid present, 02/06/2018

PLP-111, Leak Reduction Program, Rev. 18
WO 20162715-014, DSDG 'A' Ventilation Fan breaker replacement
EC 404251, MCC 24 DSDG breaker ventilation fan replacement
AD-EG-ALL-1126, Seismic Qualification of Electrical and Mechanical Equipment, Rev. 1

71111.18: Plant Modifications

AD-EG-ALL-1134, Preparation and Control of Evaluation Engineering Changes, Rev. 2
AD-EG-ALL-1137, Engineering Change Product Selection, Rev. 4
G-190200, Sheet 5, Instrument & Station Air System Flow Diagram, Rev. 48

71111.19: Post Maintenance Testing

PLP-033, Post Maintenance Testing Program, Rev. 66
WO 20202719, OST-202 (M1-STAG) steam driven aux feedwater system (PWRRED),
03/13/2018
WO 20199648, Replace the oil filter on the SDAFW pump, 03/13/2018
WO 20118730, Limitorque grease inspection of valve FP-248-MO, 03/15/2018
WO 20220053, OST-701-10 (QL) fire protection system ISI valve test, 03/15/2018
WO 20195889, Perform OST-405 TSC/EOF/PAP EDG test, 02/01/2018
WO 20209155 and 13485438, TS-11040 found loose at connection point, 02/01/2018
WO 20200420, Replace rotating assembly/rebuild on SWBP-B, 02/27/2018
NCR 02178491, Oil in SWBP 'B' is extremely dark, 01/25/2018
WO 20162715-02, DSDG Lubricating Oil Circulating Pump breaker replacement
WO 20162715-04, DSDG Radiator Fan breaker replacement
WO 20162715-012, DSDG Air Compressor breaker replacement
WO 20162715-014, DSDG 'A' Ventilation Fan breaker replacement
EC 404250-404255, MCC-24 DSDG breaker replacement

71111.22: Surveillance Testing

OMM-015, Operations Surveillance Testing, Rev. 49
NCR 02188223, Procedure inadequacies identified in MST-015
NCR 02181699, MST-015, 02/01/2018
NCR 02187713, MST-015 R039, 02/27/2018
AD-DC-ALL-0201, Development and Maintenance of Controlled Procedure Manual Procedures,
Rev. 21
AD-MN-ALL-1000, Conduct of Maintenance, Rev. 15
AD-HU-ALL-0004, Procedure and Work Instruction Use and Adherence, Rev. 9

71114.02: Alert and Notification System Evaluation

Procedures and Reports

PLP-007, Robinson Emergency Plan, Rev. 89
EPPRO-02, Maintenance and Testing, Rev. 45
EPPRO-07, Operation and Maintenance of the Alert and Notification System, Rev. 11

Records and Data

Annual siren maintenance records for 2017

2016 – 2017 RNP maintenance checklists and records
2018 Robinson Nuclear Plant EP Calendar mailer to members of the public in the 10-mile EPZ
FEMA ANS approval letter, dated 6/10/08
Duke Energy FEMA submittal of annual ANS operability and test results, dated 1/11/17
Duke Energy FEMA submittal of annual ANS operability and test results, dated 1/8/18
Duke Energy letter to FEMA requesting upgrade entitled “Request FEMA approval of Alert and Notification System Upgrade”, dated 2/7/18
FEMA siren system upgrade approval letter, dated 6/3/14
South Carolina Operational Radiological Emergency Response Plan (SCOREP) Letter of Authority and Appendix 2, State Emergency Operations Plan, pp. 2-1-1 to 2-1-A-1
Various siren system and DEMNET Piccaso tickets
Unusual Event (UE) RNP siren status report, dated 10/8/16
ANS Upgrade FEMA REP-10 Addendum, System Design Description for the Robinson Nuclear Plant, Rev. 0, dated 12/20/17
ANS Upgrade FEMA REP-10 Addendum, System Design Description for the Robinson Nuclear Plant, Rev. 0, dated 1/8/18

Corrective Action Program Documents (Nuclear Condition Report)

NCR 2037502, Chesterfield County Siren Activation Point RS 232 link failed
NCR 2039684, 2016 NRC inspection
NCR 2043391, Darlington County Siren Activation Point siren C-02 failed
NCR 2074522, Darlington County Siren Activation Point siren D-26 failed
NCR 2077352, Chesterfield County Siren Activation Point siren C-10 experienced an RTU alarm
NCR 2078701, Chesterfield County Siren Activation Point siren C-02 DC voltage alarm
NCR 2085634, Lee County Siren Activation Point siren experienced a partial activation
NCR 2090753, During routine polling, sirens C-04 and D-31 experienced siren computer alarms
NCR 2102116, During quarterly reboot of EP Area Siren system activation point computer, siren D-26 experienced a partial activation
NCR 2135855, Siren D-12 experienced siren communication alarm
NCR 2163413, During weekly siren test, siren C-1 experienced partial activation
NCR 2164412, During weekly siren test, siren C-16 experienced partial activation
NCR 2169842, During weekly siren test, siren C-16 experienced partial activation
NCR 2191928, 2018 NRC EP inspection

71114.03: Emergency Response Organization Staffing and Augmentation System

Procedures

PLP-007, Robinson Emergency Plan, Rev. 89
AD-EP-ALL-100, Emergency Response Organization (ERO), Rev. 0
AD-EP-ALL-500, Emergency Response Training, Rev. 0
AD-EP-ALL-0501, Emergency Preparedness Staff Training and Qualifications, Rev. 2
AD-EP-ALL-0801, Design and Development of Drills and Exercises, Revs. 3 and 4
AD-EP-ALL-803, Evaluation and Critique of Drills and Exercise, Rev. 2
AD-EP-ALL-0830, Augmentation Drill, Memo and Objectives Evaluation Worksheet, Rev. 0
AD-EP-ALL-1000, Conduct of Emergency Preparedness, Rev. 3
OMM-001-2, Shift Routines and Operation Practices, Rev. 116

Records and Data

2016 and 2017 ERO Augmentation Testing Results
2018 ERO 6-Team on-call rotation calendar
Selected Qualification Records for Key Position ERO Personnel
NEI 10-05, On-Shift Staffing Analysis for H.B. Robinson Nuclear Plant, Rev. 1 dated 5/15
Robinson Nuclear Plant ERO Augmentation Drill Critique Reports, dated 8/4/16 and 8/16/17
Robinson Nuclear Plant Emergency Plan Implementation, October 8, 2016 Unusual Event –
EAL SU 1.1, Loss of Offsite Power to Emergency Buses E-1 and E-2 for > 15 minutes
RNP augmentation drill report, dated 8/4/16
ERO position on-call list, Rev. 30

Corrective Action Program Documents

NCR 2045096, DEP Tabletop drill cancellation
NCR 2051300, ERO on-call member response time not met
NCR 2051352, Inadequate preparation for ERO augmentation drill
NCR 2051464, RNP augmentation drill
NCR 2069022, ERO phone deactivated due to non-use
NCR 2069217, ERO activation notification not received as expected
NCR 2136059, NOS manager concern: ERO drill and exercise performance
NCR 2137369, EP graded exercise: RNP drill performance
NCR 2146830, HAZMAT qualifications dropped due to new requirement

71114.04: Emergency Action Level and Emergency Plan Changes

Procedures

AD-EP-ALL-0500, Emergency Response Training, Rev. 0
AD-EP-ALL-0501, Emergency Preparedness Staff Training & Qualifications, Rev. 1
AD-EP-ALL-0502, Emergency Preparedness 10 CFR 50.54(q) Training Requirements, Rev. 1
AD-EP-ALL-0602, Emergency Plan Change Screening & Effectiveness Evaluations 10 CFR
50.54(q), Rev, 4
AD-EP-ALL-1000, Conduct of Emergency Preparedness, Rev. 3
PLP-007, Robinson Emergency Plan, Rev. 88 & 89

Change Packages

10 CFR 50.54(q) Screening Evaluation Form for PLP-007, Robinson Emergency Plan Rev. 88,
dated 9/18/17
10 CFR 50.54(q) Effectiveness Evaluation Form for PLP-007, Robinson Emergency Plan Rev.
88, dated 9/18/17
10 CFR 50.54(q) Screening Evaluation Form for PLP-007, Robinson Emergency Plan Rev. 89,
dated 12/5/17
10 CFR 50.54(q) Effectiveness Evaluation Form for PLP-007, Robinson Emergency Plan
Rev. 89, dated 12/5/17

Corrective Action Program Documents

NCR 2136821, 2017 EP Graded Exercise – 10 CFR 50.54(q) related to EPCLA-04
NCR 2191538, PLP-007 NRC-identified discrepancies
NCR 2191544, 2018 NRC EP inspection

71114.05: Maintenance of Emergency Preparedness

Procedures

AD-EP-ALL, 0101, Emergency Classification, Rev. 1
AD-EP-ALL-0203, Filed Monitoring During Declared Emergency, Rev. 2
AD-EP-ALL-0500, Emergency Response Training, Rev. 0
AD-EP-ALL-0502, EP 10 CFR 50.54(q) Training Requirements, Rev. 1
AD-EP-ALL-0801, Design & Development of Drills and Exercises, Rev. 3
AD-EP-ALL-0802, Conducting Drills & Exercises, Rev. 3
AD-EP-ALL-0803, Evaluation & Critique of Drills and Exercises, Rev. 2
AD-EP-ALL-1000, Conduct of Emergency Preparedness, Rev. 3
AD-EP-ALL-RNP-203, Robinson Site Specific Field Monitoring, Rev. 0 & 1
AD-PI-ALL-0100, Corrective Action Program, Rev. 15
AD-PI-ALL-0300, Self-Assessment & Benchmark Programs, Rev. 4
PLP-007, Robinson Emergency Plan, Rev. 89
PLP-069, Emergency Response Equipment Responsibilities, Rev. 30

Records and Data

10 CFR 50.54(q) Preparer Training Requirements Documentation
10 CFR 50.54(q) Reviewer Training Requirements Documentation
2017 ERO Graded Exercise & Program Inspection Self-Assessment Report, dated 5/5/17
2018 Pre-NRC Program Inspection Self-Assessment Report, dated 12/15/17
KLD Engineering, P.C., RNP Development of Evacuation Time Estimates, dated 11/2012
KLD Engineering, P.C., RNP 2017 population update analysis, dated 11/7/17
RNP Emergency Plan Implementation Oct. 8, 2016, Unusual Event – EAL SU1.1, dated 11/7/16
RNP Integrated Drill Critique Report February 24, 2016, dated 3/22/16
RNP Integrated Drill Critique Report April 6, 2016, dated 4/27/16
RNP Integrated Drill Critique Report May 25, 2016, dated 6/23/16
RNP Integrated Drill Critique Report October 19, 2016, dated 11/19/16
RNP Full Scale Drill Critique Report May 31, 2017, dated 7/5/17
RNP Full Scale Drill Critique Report June 6, 2017, dated 7/5/17
RNP Graded Exercise Critique Report July 11, 2017, dated 8/11/17
RNP Drill Exercise Critique Report October 11, 2017, dated 11/11/17

Corrective Action Documents

NCR 2039898, 2016 NRC inspection – emergency response facility walkdowns
NCR 2040062, 2016 NRC inspection – PLP-007 Rev. 86 50.54(q)
NCR 2040063, 2016 NRC inspection – primary to secondary leakage
NCR 2136380, 2017 EP Graded Exercise – GE & PAR declaration
NCR 2136385, 2017 EP Graded Exercise – loose parts alarm
NCR 2136393, 2017 EP Graded Exercise – initial notification of the GE
NCR 2136403, 2017 EP Graded Exercise – faulted steam generator
NCR 2136451, 2017 EP Graded Exercise – scenario improvements
NCR 2136958, 2017 EP Graded Exercise – log keeping
NCR 2136962, 2017 EP Graded Exercise – core damage assessment
NCR 2137369, 2017 EP Graded Exercise – RNP drill performance
NCR 2191093, 2018 NRC EP inspection

71151: Performance Indicator Verification

Procedures

AD-BO-ALL-0002, Performance Measures Program, Rev. 4

AD-EP-ALL-0002, NRC Regulatory Assessment Performance Indicator Guidelines Emergency Preparedness, Rev. 3

AD-EP-0002, NRC Regulatory Assessment Performance Indicator Guideline EP Cornerstone, Rev. 3

AD-LS-ALL-0004, NRC Performance Indicators and Monthly Operating Report, Rev. 2

RNP-M/MECH-1904, RNP NRC Mitigating System Performance Index (MSPI) Basis Document, Rev. 4

Records and Data

DEP opportunities documentation for 2nd, 3rd, & 4th quarters 2017

Siren test data for 2nd, 3rd, & 4th quarters 2017

Drill & exercise participation records of ERO personnel for 2nd, 3rd, & 4th quarters 2017

Corrective Action Documents

NCR 1948035, RNP received unresolved issue associated with cyber security milestone 2

NCR 1952569, Radiation Monitoring in the PING building (R-33) has dual USB port on the side

NCR 1978288, Lack of control for a digital asset associated with R-14, plant vent stack radiation monitor

NCR 2051300, Inadequate preparation for ERO augmentation drill

NCR 2031352, ERO augmentation drill response site had missing materials

71152: Problem Identification and Resolution

AD-PI-ALL-0100, Corrective Action Program, Rev. 15

AD-PI-ALL-0101, Root Cause Evaluation, Rev. 5

AD-PI-ALL-0102, Apparent Cause Evaluation, Rev. 4

AD-PI-ALL-0103, Quick Cause Evaluation, Rev. 4

AD-PI-ALL-0104, Prompt Investigation Response Team, Rev. 4

AD-LS-ALL-0006, Notification/Reportability Evaluation, Rev. 1

AD-EG-ALL-1311, Failure Investigation Process (FIP), Rev. 0

NCR 02162416, Need Part 21 wedge pin analysis for CVC-381 RCP Seal Water return valve, 11/01/2017

NCR 02161703, Evaluate SI-878A/B and SI-865A/B/C for Anchor Darling Part 21, 10/30/2017