



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

REGION III
2443 WARRENVILLE RD. SUITE 210
LISLE, ILLINOIS 60532-4352

April 19, 2018

Mr. Bryan C. Hanson
Senior VP, Exelon Generation Company, LLC
President and CNO, Exelon Nuclear
4300 Winfield Road
Warrenville, IL 60555

SUBJECT: BRAIDWOOD STATION, UNITS 1 AND 2—NRC INTEGRATED INSPECTION
REPORT 05000456/2018001 AND 05000457/2018001

Dear Mr. Hanson:

On March 31, 2018, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Braidwood Station, Units 1 and 2. On April 17, 2018, the NRC inspectors discussed the results of this inspection with the Site Vice President, Ms. M. Marchionda, and other members of your staff. The results of this inspection are documented in the enclosed report.

Based on the results of this inspection, no findings of significance were identified.

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/

Eric R. Duncan, Chief
Branch 2
Division of Reactor Projects

Docket Nos. 50-456 and 50-457
License Nos. NPF-72 and NPF-77

Enclosure:
IR 05000456/2018001; 05000457/2018001

cc: Distribution via ListServ®

Letter to Bryan C. Hanson from Eric R. Duncan dated April 19, 2018

SUBJECT: BRAIDWOOD STATION, UNITS 1 AND 2—NRC INTEGRATED INSPECTION
REPORT 05000456/2018001 AND 05000457/2018001

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Inspection Report

REGION III

Docket Numbers: 50-456; 50-457

License Numbers: NPF-72; NPF-77

Report Numbers: 05000456/2018001; 05000457/2018001

Enterprise Identifier: I-2018-001-0028

Licensee: Exelon Generation Company, LLC

Facility: Braidwood Station, Units 1 and 2

Location: Braceville, IL

Dates: January 1 through March 31, 2018

Inspectors: D. Kimble, Senior Resident Inspector
D. Betancourt, Resident Inspector
G. Edwards, Health Physicist
M. Porfirio, Illinois Emergency Management Agency

Approved by: E. Duncan, Chief
Branch 2
Division of Reactor Projects

Enclosure

SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring licensee's performance by conducting an integrated quarterly inspection at the Braidwood Nuclear Station, Units 1 and 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

No findings or violations were identified.

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PLANT STATUS

Unit 1 began the inspection period operating at full power. On March 21, 2018, the unit reached the end of the nuclear fuel cycle and entered planned power coast down operations in preparation for the 20th refueling outage. The unit was at approximately 96 percent power at the end of the inspection period with power coast down operations continuing.

Unit 2 began the inspection period operating at full power. With the exception of minor reductions in power to support scheduled testing activities or small load changes requested by the transmission system dispatcher, the unit remained operating at or near full 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

Impending Severe Weather (1 Sample)

The inspectors evaluated readiness for impending adverse weather conditions for heavy snow during the week ending February 10, 2018.

71111.04—Equipment Alignment

Partial Walkdown (1 Sample)

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

- (1) The 2A Emergency Diesel Generator (EDG) with 2B EDG out-of-service for surveillance testing during the week ending January 27, 2018.

71111.05—Fire Protection Annual/Quarterly

Quarterly Inspection (2 Samples)

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

- (1) The 1A Safety Injection Room during the week ending February 17, 2018; and
- (2) The Control Room HVAC (VC) system equipment area during the week ending February 17, 2018.

Annual Inspection (1 Sample)

- (1) The inspectors evaluated fire brigade performance during a drill conducted on February 15, 2018.

71111.06—Flood Protection Measures

Cables (1 Sample)

The inspectors evaluated cable submergence protection in:

- (1) Cable Vault 1H during the week ending February 24, 2018.

71111.11—Licensed Operator Requalification Program and Licensed Operator Performance

Operator Requalification (1 Sample)

The inspectors observed and evaluated an operations crew evaluated scenario in the plant training simulator during the week ending January 27, 2018.

Operator Performance (1 Sample)

The inspectors observed and evaluated various control room activities during the weeks ending March 17 through March 31, 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) The Units 1 and 2 Diesel Oil Storage Tank (DOST) inspections and aging management plans during the week ending February 17, 2018; and
- (2) The Units 1 and 2 VC system during the week ending February 17, 2018.

71111.13—Maintenance Risk Assessments and Emergent Work Control (3 Samples)

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

- (1) The 2A EDG maintenance window during the week ending February 10, 2018;

- (2) Westinghouse Ovation upgrade installation activities on Unit 1 during the weeks ending March 17 through March 31, 2018; and
- (3) The Train B Essential Service Water Header Return Valve, 0SX165B, work window during the week ending March 24, 2018.

71111.15—Operability Determinations and Functionality Assessments (3 Samples)

The inspectors evaluated the following operability determinations and functionality assessments:

- (1) IR 4094993: 2AF004B failed to stroke open on demand during the week ending January 20, 2018;
- (2) IR 4096762: 1(2)RF026/027 testing issues during the week ending February 3, 2018; and
- (3) IR 4110746: 2AF005A slow to close during the week ending March 10, 2018.

71111.18—Plant Modifications (1 Sample)

The inspectors evaluated the following temporary or permanent modifications:

- (1) A permanent plant modification to connect Service Building HVAC (VS) with VC during the week ending February 3, 2018.

71111.19—Post Maintenance Testing (3 Samples)

The inspectors evaluated the following post maintenance tests:

- (1) Work Order (WO) 4572401: Technical Support Center charcoal/filter acceptance testing following replacement during the week ending January 27, 2018;
- (2) WO 4738703: 2A EDG operability testing following a maintenance work window during the week ending February 10, 2018; and
- (3) WO 4739252: Unit 1 Station Air Compressor surge testing following a compressor rebuild during the week ending February 24, 2018.

71111.22—Surveillance Testing

The inspectors evaluated the following surveillance tests:

Routine (3 Samples)

- (1) BwVSR 3.1.3.2: Unit 1 Moderation Temperature Coefficient (MTC) measurement at 300 ppm boron during the week ending January 13, 2018;
- (2) 0BwOS CW-1: Circulating Water Blowdown (CWBD) Line inspections during the week ending January 27, 2018; and
- (3) 1BwOSR 3.8.1.2-2: 1B EDG Monthly Test during the week ending March 17, 2018

In-service (1 Sample)

- (1) 2BwOSR 5.5.8RH-5A: 2A RH Pump testing during the week ending March 31, 2018.

Reactor Coolant System Leak Detection (1 Sample)

(1) Unit 2 Reactor Coolant System (RCS) unidentified leakage during the week ending February 17 through the week ending February 24, 2018.

71114.06—Drill Evaluation

Emergency Planning Drill (1 Sample)

The inspectors evaluated a full-scale Emergency Planning Drill conducted on February 7, 2018.

RADIATION SAFETY

71124.03—In-Plant Airborne Radioactivity Control and Mitigation

Engineering Controls (1 Sample)

The inspectors evaluated airborne controls and monitoring.

Use of Respiratory Protection Devices (1 Sample)

The inspectors evaluated respiratory protection.

Self-Contained Breathing Apparatus for Emergency Use (1 Sample)

The inspectors evaluated the licensee's self-contained breathing apparatus program.

71124.04—Occupational Dose Assessment

Source Term Characterization (1 Sample)

The inspectors evaluated the licensee's source term characterization.

External Dosimetry (1 Sample)

The inspectors evaluated the licensee's external dosimetry program.

Internal Dosimetry (1 Sample)

The inspectors evaluated the licensee's internal dosimetry program.

Special Dosimetric Situations (1 Sample)

The inspectors evaluated the licensee's performance for special dosimetric situations.

OTHER ACTIVITIES – BASELINE

71151—Performance Indicator Verification (6 Samples)

The inspectors verified the licensee performance indicators submittals listed below:

- (1) IE01: Unplanned Scrams per 7000 Critical Hours – 2 Samples
(01/01/2017 – 12/31/2017);
- (2) IE03: Unplanned Power Changes per 7000 Critical Hours – 2 Samples
(01/01/2017 – 12/31/2017);
- (3) IE04: Unplanned Scrams with Complications – 2 Samples
(01/01/2017 – 12/31/2017);

INSPECTION RESULTS

No findings or violations were identified.

THIRD PARTY REVIEWS

Review of the Plant Evaluation Report from the Institute of Nuclear Power Operations

As discussed in IMC 0611, Section 13.01, the inspectors completed a review of the report issued by the Institute of Nuclear Power Operations (INPO) for the most recent periodic plant evaluation performed at the Braidwood Station during August 2017.

EXIT MEETINGS AND DEBRIEFS

The inspectors confirmed that proprietary information was controlled to protect it from public disclosure. No proprietary information was documented in this report.

- On January 26, 2018, the inspectors presented the In-Plant Airborne Radioactivity Control and Mitigation and the Occupational Dose Assessment inspection results to the Site Vice President, Ms. M. Marchionda, and other members of the licensee staff.
- On April 17, 2018, the inspectors presented the overall integrated inspection results to the Site Vice President, Ms. M. Marchionda, and other members of the licensee staff.

DOCUMENTS REVIEWED

71111.01—Adverse Weather Protection

Procedures:

- 0BwOA ENV-1; Adverse Weather Conditions Unit 0; Revision 123
- OP-AA-102-102; General Area Checks and Operator Field Rounds; Revision 15
- OP-AA-108-107-1001; Station Response to Grid Capacity Conditions; Revision 7
- OP-AA-108-111-1001; Severe Weather and Natural Disaster Guidelines; Revision 16
- OP-BR-102-102-1001; Augmented Operator Field Rounds; Revision 3
- WC-AA-107; Seasonal Readiness; Revision 19

71111.04—Equipment Alignment

Procedures:

- BwOP DG-M3; Operating Mechanical Lineup Unit 2 2A Diesel Generator; Revision 15

71111.05—Fire Protection Annual/Quarterly

Action Requests/Issue Reports:

- 4104601; 4 Spare Flashlights in 426' Fire Brigade Cage Dead; 02/15/2018
- 4117001; Fire in Fab Shop; 03/20/2018

Procedures:

- BwAP 1100-16; Fire/Hazardous Materials Spill and/or Injury Response; Revisions 32 - 33
- BwAP 1100-3; Fire Chief (Designated Field Supervisor) Implementing Procedure; Revision 4
- BwAP 1100-4; Fire Brigade Implementing Procedure; Revision 5
- BwAP 1110-1; Fire Protection Program System Requirements; Revision 41
- BwAP 1110-1A3; GOCAR Action Chart Fire Protection Water Suppression Systems; Revision 8
- BwAP 1110-1A4; GOCAR Required Compensatory Measures Action Response Carbon Dioxide Fire Suppression Systems; Revision 10
- BwAP 1110-1A5; GOCAR Required Compensatory Measures Action Response Halon Fire Suppression Systems; Revision 5
- BwAP 1110-3; Plant Barrier Impairment Program; Revision 38
- BwAR 0-37-A4; Unit One Area Fire; Revision 16
- BwOP FP-100; Fire Response Guidelines; Revision 23
- BwOP PBI-1; Plant Barrier Impairment Program Pre-Evaluated Barrier Matrix; Revision 1
- CC-AA-201; Plant Barrier Control Program; Revision 11
- ER-AA-600-1069; High Risk Fire Area Identification; Revision 4
- ER-BR-600-1069; Site List of High Risk Fire Areas – Braidwood Unit 1 and Unit 2; Revision 0
- OP-AA-201-003; Fire Drill Performance; Revision 16
- OP-AA-201-004; Fire Prevention for Hot Work; Revision 14
- OP-AA-201-005; Fire Brigade Qualification; Revision 9
- OP-AA-201-008; Pre-Fire Plan Manual; Revision 4
- OP-AA-201-009; Control of Transient Combustible Material; Revision 20
- OP-MW-201-007; Fire Protection System Impairment Control; Revision 7

Other:

- Crew 1 Fire Drill Record for Scenario 20.18.02.14; 02/15/2018
- Fire Drill Scenario 20.18.02.14; Fire in Turbo Toc; 02/14/2018

71111.06—Flood Protection Measures

Action Requests/Issue Reports:

- 4093033; Cable Vault 1H Sump Pump 1DM05J High Level Alarm Locked In; 01/12/2018
- 4104959; Cable Vault 1H Water Level Rising; 02/16/2018
- 4107544; Cable Vault 1G (1DM04J) Snoring; 02/23/2018
- 4107547; Cable Vault 2G (2DM04J) Snoring; 02/23/2018
- 4107549; Cable Vault 1H (1DM05J) Snoring; 02/23/2018
- 4108527; Cable Vault 2H Breaker Tripped; 02/26/2018
- 4111555; 2C Cable Vault High Level with Pump Running; 03/05/2018
- 4114505; Cable Vault 2J Alarm Light Flashing, High Level; 03/13/2018

Procedures:

- BwOP WX-902; Use of Portable Sump Pumps for Non-Installed Sump Pump Application; Revision 0
- ER-AA-300-150; Cable Condition Monitoring Program; Revision 5

71111.11—Licensed Operator Requalification Program and Licensed Operator Performance

Action Requests/Issue Reports:

- 4117001; Fire in Fab Shop; 03/20/2018

Procedures:

- 2BwOSR 5.5.8.CS-3B; Comprehensive Full Flow Test for 2B Containment Spray Pump (2CS01PB) and Check Valves 2CS003B, 2CS011B; Revision 15
- BwAP 1100-16; Fire/Hazardous Materials Spill and/or Injury Response; Revision 33
- OP-AA-101-111-1001; Operations Standards and Expectations; Revision 20
- OP-AA-101-113; Operator Fundamentals; Revision 11
- OP-AA-101-113-1006; 4.0 Crew Critique Guidelines; Revision 9
- OP-AA-103-102; Watch-Standing Practices; Revision 18
- OP-AA-103-102-1001; Strategies for Successful Transient Mitigation; Revision 2
- OP-AA-103-103; Operation of Plant Equipment; Revision 1
- OP-AA-104-101; Communications; Revision 3
- OP-AA-108-107-1002; Interface Procedure Between BGE/COMED/PECO and Exelon Generation (Nuclear/Power) for Transmission Operations; Revision 11
- OP-AA-111-101; Operating Narrative Logs and Records; Revision 13
- OP-AA-300; Reactivity Management; Revision 12
- TQ-AA-10; Systematic Approach to Training Process Description; Revision 5
- TQ-AA-150; Operator Training Programs; Revision 15
- TQ-AA-155; Conduct of Simulator Training and Evaluation; Revision 7
- TQ-AA-306; Simulator Management; Revision 8
- TQ-BR-201-0113; Braidwood Training Department Simulator Examination Security Actions; Revision 21

Work Orders:

- 1845721; EC 400434 – Westinghouse Ovation Digital Upgrade for 7300 NSSS; 02/13/2018

71111.12—Maintenance Effectiveness

Action Requests/Issue Reports:

- 1582946; 2VD01CA Tripped/Auto-Restarted During Diesel Generator Run; 11/08/2013
- 1646790; 0VC08Y Opened Unexpectedly; 04/13/2014
- 1668368; ACE Actions Needed for VC Hydramotor Failure; 06/05/2014
- 2420401; 0A VC Chiller Tripped on Low Evap Refrigerant Temperature – 0WO01CA; 12/03/2014
- 2492383; 0A Main Control Room Chiller Trouble Alarm – 0WO01CA; 04/28/2015
- 2492480; Chiller Oil Add/Remove Log Book Inadequate; 04/29/2015
- 2493159; 4.0 Crew Critique for Abnormal 0A VC Chiller Indications
- 2732049; 1B/1D Diesel Oil Storage Tank Inspection Results – 1DO01TB; 10/25/2016
- 4099412; 2A Diesel Oil Storage Tank Inspection and Coating; 01/31/2018
- 4101623; Technical Specification Surveillance Test Interval Change Request; 02/07/2018

Procedures:

- ER-AA-310; Implementation of the Maintenance Rule; Revision 11
- ER-AA-310-1001; Maintenance Rule – Scoping; Revision 4
- ER-AA-310-1002; Maintenance Rule Functions – Safety Significant Classification; Revision 3
- ER-AA-310-1003; Maintenance Rule – Performance Criteria Selection; Revision 5
- ER-AA-310-1004; Maintenance Rule – Performance Monitoring; Revision 14

Work Orders:

- 1699114; 1DO01TB – Clean Inspect 1DO01TB per Technical Requirements Manual, Appendix M, Section 1; 12/01/2015
- 1699204; 1DO01TD – Clean Inspect 1DO01TD per Technical Requirements Manual, Appendix M, Section 1; 12/13/2017
- 4099412; 2A Diesel Oil Storage Tank Inspection and Coating; 01/13/2018
- 4100390; Safety: Fixed (Perm) Ladder Not in Compliance with OSHA Standards; 02/02/2018
- 4103838; 2B Diesel Oil Storage Tank Room Ceiling Leaks Water/ 02/14/2018
- 697274; MM – Clean Inspect 1DO01TC per Technical Requirements Manual, Appendix M, Section 1; 1/27/2007
- 697676; MM – Clean Inspect 1DO01TA per Technical Requirements Manual, Appendix M, Section 1; 1/27/2007
- 753539; 2DO01TB – Clean Inspect 2DO01TB per Technical Requirements Manual, Appendix M; Section 1; 04/08/2006
- 753540; MM – Clean Inspect per Technical Requirements Manual Appendix M, Section 1; 03/28/2008

Other:

- Evaluation Report NUC2016126; Coating Assessment in Unit 1 Emergency Diesel Storage Tanks 1DO01TD and 1DO01TB; Revision 0

71111.13—Maintenance Risk Assessments and Emergent Work Control

Action Requests/Issue Reports:

- 4100999; 2A EDG A Phase Over Current Relay Out-of-Tolerance; 02/05/2018
- 4101483; Lessons Learned – 2A Diesel Generator Window – Removal of Jacket Water Cooler Cleaning and Inspection at Execution; 02/06/2018
- 4114366; TCP Thin Client Issues Identified; 03/13/2018
- 4114721; Ovation Cutover Transmitter Out-of-Tolerance WO No. 4698242-09; 03/14/2018
- 4114865; 7300 Project Delays; 03/14/2018
- 4114998; 7300 Delays for Ops and Project Related to PRT Level Cutover; 03/14/2018
- 4115015; 7300 Mod Lessons Learned – Operational Impact; 03/14/2018
- 4116639; Need to Pump Water Out of Vault for EPN: 0SX165B; 03/19/2018
- 4116802; 0SX165B Coating Inspection; 03/19/2018

Procedures:

- BwOP CX-99; Ovation Temporary Control Panel (TCP) Operations; Revision 0
- CC-AA-501; Exelon Nuclear Welding Program; Revision 2
- ER-AA-330-001; Section XI Pressure Testing; Revision 14
- ER-AA-330-009; ASME Section XI Repair/Replacement Program; Revision 13
- ER-AA-335-015-2003; VT-2 Visual Examination in Accordance with ASME 2001 Edition, 2003 Addenda; Revision 2
- ER-AA-600; Risk Management; Revision 7
- ER-AA-600-1042; On-Line Risk Management; Revision 11

- OP-AA-108-117; Protected Equipment Program; Revision 5
- WC-AA-101-1006; On-Line Risk Management and Assessment; Revision 2
- WC-AA-104; Integrated Risk Management; Revision 25
- 2BwOL 3.7.8; LOCAR Essential Service Water (SX) System Tech Spec 3.7.8; Revision 8

Work Orders:

- 1845721; EC400434: Westinghouse Ovation Digital Upgrade for 7300 NSSS; 02/13/2018
- 1906920; Coating Inspection of Piping for 0SX165B; 03/19/2018
- 4595872; EC 617999: Remove Drain Line 0SXH2AB-6 and Vent Line 0SXC2BB-3; 03/19/2018

Drawings/Prints:

- ESW-205; Essential Service Water; Revision N/A

71111.15—Operability Determinations and Functionality Assessments

Action Requests/Issue Reports:

- 4094993; 2AF004B Failed to Open During Slave Relay Testing; 01/18/2018
- 4096762; Byron DBAI Licensee ID – RF Air Accumulator Check Valve; 01/24/2018
- 4096766; DBAI NRC Identified – Check Valve Testing on 1(2) RF026/027; 01/24/2018
- 4098736; NRC DBAI – IST Noncompliance Issue; 01/30/2018
- 4099311; Review of Byron IR – IST Noncompliance Issue; 01/31/2018
- 4110746; 2AF005A Slow to Close – Outside Alert Limit; 03/02/2018

Procedures:

- 2BwOSR 3.3.2.8-604B; Unit 2 ESFAS Instrument Slave Relay Surveillance; Revision 5
- 2BwOSR 3.6.3.5.AF-1A; Unit 2 Train A Auxiliary Feedwater Valve Stroke Surveillance; Revision 27
- ER-AA-321; Administrative Requirements for Inservice Testing; Revision 12
- ER-AA-600-1012; Risk Management Documentation; Revision 13
- ER-AA-600-1045; Risk Assessments of Missed or Deficient Surveillances; Revision 7
- OP-AA-106-101-1006; Operational Decision Making Process; Revision 19
- OP-AA-108-111; Adverse Condition Monitoring Program; Revision 10
- OP-AA-108-115; Operability Determinations (CM-1); Revision 20

Work Orders:

- 1803903; Unit 2 Train B Slave Relay Surveillance K604; 01/18/2018
- 4729525; Unit 2 Train A Auxiliary Feedwater Valves ASME Quarterly; 03/01/2018

71111.18—Plant Modifications

Engineering Changes/Design Change Packages:

- 620451; VC/VS Cross Tie – Alternate Cooling for Control Room Envelope; Revisions 0 and 1

Other:

- BRW-S-2017-91; 50.59 Screening; Revision 1

71111.19—Post Maintenance Testing

Action Requests/Issue Reports:

- 4096824; Leakage Present During TSC Bypass Leakage Testing; 01/24/2018
- 4096861; Unit 1 Station Air Compressor Trip on High Vibrations; 01/25/2018

- 4102001; Failed PMTs: 2A Diesel Generator Fuel Leak 3-5 Drops per Minute; 02/08/2018
- 4106769; Set Screw Installation on 1st Stage Intercooler; 02/21/2018

Drawings/Prints:

- M-94, Sheet 2; Technical Support Center Ventilation System; Revision W
- M-94, Sheet 3; Technical Support Center Ventilation System; Revision G

Procedures:

- BwIS VV-1; Technical Support Center Ventilation System HEPA and Charcoal Filter Performance Test; Revision 4
- BwOP DG-1; Diesel Generator Alignment to Standby Condition; Revision 29
- BwOP DG-11; Diesel Generator Startup and Operation; Revision 47
- BwOP DG-12; Diesel Generator Shutdown; Revision 30
- BwOP SA-1; Startup and Operation of Station Air Compressors; Revision 44
- BwOP SA-2; Shutdown of the Station Air Compressor; Revision 21
- 1BwOS SA-1; Station Air Compressor Surge Point Testing; Revision 2
- 2BwOSR 3.3.2.8-611A; Unit 2 ESFAS Instrumentation Slave Relay Surveillance (Train A Automatic Safety Injection – K611); Revision 11
- 2BwOSR 3.8.1.2-1; 2A Diesel Generator Operability Surveillance; Revision 42
- BwVP 900-1; Operation of NUCON Aerosol Injection/detection Equipment; Revision 0

Work Orders:

- 1951900; 0VV21F and 0VV22F Replace Charcoal Tray; 01/23/2018
- 4572401; Technical Support Center Ventilation System HEP Filter Performance Test; 01/24/2018
- 4738703; 2A Emergency Diesel Generator Monthly Operability Surveillance; 02/08/2018
- 4739252; 1SA01C Station Air Compressor Repairs; 01/26/2018

71111.22—Surveillance Testing

Action Requests/Issue Reports:

- 4100541; STD Action Level 1 Exceeded for Unit 2 RCS Leakage; 02/03/2018
- 4115030; Unit 2 RCS Leakrate Exceeds Action Level 1; 03/15/2018

Procedures:

- 0BwOS CW-1; Circulating Water System Blowdown Line Inspection; Revision 3
- 1BwOS DG-3b; Diesel Generator Turbocharger Spindown Time Check; Revision 0
- 1BwOSR 3.8.1.2-2; 1B Diesel Generator Operability Surveillance; Revision 40
- 2B2OSR 5.5.8.SX-3A; Group A In-Service Test Requirements for 2A Essential Service Water Pump (2SX01PA); Revision 14
- 2BwOSR 5.5.8.RH-5A; Group A IST Requirements for Residual Heat Removal Pump 2RH01PA; Revision 19
- BwOP DG-1; Diesel Generator Alignment to Standby Condition; Revision 29
- BwOP DG-11; Diesel Generator Startup and Operation; Revision 48
- BwOP DG-12; Diesel Generator Shutdown; Revision 30
- BwOP RH-2; Securing the RH System From Recirculation; Revision 13
- BwOP RH-5; RH System Startup for Recirculation; Revision 25
- BwVSR 3.1.3.2; Moderator Temperature Coefficient Measurement at Power – End of Life; Revision 9
- ER-AP-331-1003; RCS Leakage Monitoring and Action Plan; Revision 10
- OP-AA-108-111; Adverse Condition Monitoring Program; Revision 10

Work Orders:

- 1934233; Moderator Temperature Coefficient at Power within 7 EFPD of 300 ppm; 01/08/2018
- 4657571; Measure Diesel Turbocharger Spin Down Time; 03/14/2018
- 4736501; Unit 0 Circulating Water Vacuum Breaker Inspection; 01/23/2018
- 4750426; IST – 2RH01PA ASME Group A Test and CC – 2SI8958A; 03/27/2018
- 4752359; LR – IST – 1B Diesel Generator Operability Monthly; 03/14/2018

Other:

- Unit 2 RCS Elevated Unidentified Leak Rate Adverse Condition Monitoring Plan; Revision 4

71114.06—Drill Evaluation

Action Requests/Issue Reports:

- 4103315; Braidwood Emergency Planning Pre-Exercise Failed Overall Objective .J.1; 02/12/2018

71124.03—In-Plant Airborne Radioactivity Control and Mitigation

Action Requests/Issue Reports:

- 2716203; TSC Bypass Leakage Testing Non-Compliance to Licensing Basis; 09/15/2016
- 2720384; A1R19LL CTMT Mod Work Impacts Rad Skid Ops – 1PR11J; 09/26/2016
- 2721965; A1R19LL; Head Lift A/B Monitoring and Control; 09/26/2016
- 4007379; PM 55128, Post LOCA CNMT Purge System HEPA Test – Late; 01/17/2017
- 4041380; Auxiliary Building Medium Efficiency Pre-Filters Dirty; 08/11/2017

Procedures:

- RP-AA-301; Radiological Air Sampling Program; Revision 10
- RP-AA-440; Respiratory Protection Program; Revision 14
- RP-AA-442; Selection of Respiratory Protection for Non-Radiological Use; Revision 5
- RP-AA-443; Quantitative Respirator Fit Testing; Revision 15
- RP-AA-444; Controlled Negative Pressure (CNP) Fit Testing; Revision 2
- RP-AA-700-1216; Calibration of Hi-Vol Air Samplers; Revision 3
- RP-AA-700-1215; Calibration of Low-Vol Air Samplers; Revision 2
- RP-AA-825-1011; Inspection and Use of the MURUROA V4 MTH2 and V4 F1 Air Supplied Suits; Revision 5
- RP-AA-870-1003; Testing Portable HEPA Filters Units; Revision 5
- RP-AA-871-1004; Use of Air Movers Portable Fans in Radiologically Controlled Areas; Revision 1
- RP-BR-825-1003; Operation, Inspection and Use of the MSA Firehawk Self-Contained Breathing Apparatus (SCBA); Revision 4
- RP-BR-825-1003, Attachment 2: MSA Firehawk Self Contained Breathing Apparatus Checklist, Location: Control Room; 01/12/2016
- RP-BR-825-1003, Attachment 2; MSA Firehawk Self Contained Breathing Apparatus Checklist, Location: Control Room and Fire Van; 08/02/2016

PSI Projects:

- 472993; Quarterly Service Air and Self Contained Breathing Apparatus; 06/27/2017
- 472993; Quarterly Service Air and Self Contained Breathing Apparatus; 09/25/2017
- 473054; Quarterly Service Air and Self Contained Breathing Apparatus; 12/06/2017

Other:

- Certificate Number 00110612009; Certificate of Calibration; Eberline AMS-4, Serial Number-1279; 10/25/2017
- Certificate Number 0011063594; Certificate of Calibration; Eberline AMS-4, Serial Number-1276; 11/09/17
- Hydrostatic Water Jacket Retest Data Sheet; 02/25/2017
- Hydrostatic Water Jacket Retest Data Sheet; 03/08/2017
- Hydrostatic Water Jacket Retest Data Sheet; 05/02/2017
- Kit Number 344231; Air/Gas Quality Report and Certificate; 01/04/2017
- Kit Number 357034; Air/Gas Quality Report and Certificate; 07/07/2017

71124.04—Occupational Dose Assessment

Action Requests/Issue Reports:

- 2723898; Worker Received an Accumulated Dose Alarm; 10/04/2016
- 3950739; Self-Assessment; Occupational Dose Assessment (IP 71124.04); 11/27/2017
- 4001618; A2R19LL for Gas Void Monitoring of IMB Locations; 04/24/2017
- 4005322; Worker Dose Rate Alarm; 05/01/2017
- 4036603; RP OE: Perform Level 3 OPEX Unanticipated Dose Rate Alarm; 07/28/2017
- 4091955; Worker Exits RCA with Alarming ED; 01/09/2018

Procedures:

- RP-AA-210; Dosimetry Issue, Usage and Control; Revision 27
- RP-AA-210-1004; Shallow Dose Equivalent Program Review; Revision 0
- RP-AA-220; Bioassay Program; Revision 12
- RP-AA-222; Methods for Estimating Internal Exposure from In Vivo and In Vitro Bioassay Data; Revision 5
- RP-AA-223; Calculating and Crediting Dose from Tritium Exposure; Revision 1
- RP-AA-226; Calibration of Canberra Accuscan Whole Body Counter; Revision 1
- RP-AA-229; FASTSCAN ABACOS Plus Whole Body Counter (WBC) Calibration; Revision 3
- RP-AA-280; Occupational Exposure Reporting; Revision 10
- RP-AA-441; TEDE ALARA Evaluations; Revision 8
- RP-AA-605; 10 CFR 61 Program; Revision 8

Multiple Dosimetry EDE Evaluations:

- A2R19 Rx Cavity Decontamination and RPT Coverage for Rx Head Flange Inspection; 04/20/2017
- A2R19 Rx Head Flange Inspection; 04/20/2017
- A2R19 Rx Head Peening Project; 04/20/2017

Other:

- Certificate Number 00110612009; Certificate of Calibration; Eberline AMS-4, Serial Number 1279; 10/25/2017
- Certificate Number 0011063594; Certificate of Calibration; Eberline AMS-4, Serial Number 1276; 11/09/17
- Mirion Technologies; Calibration of the Canberra FASTSCAN WBC System at the Exelon Braidwood Generating Station; 03/01/2017
- NVLAP Lab Code 100518-0; NVLAP Certificate of Accreditation to ISO/IEC 17025:2005; 01/01/2018
- PM-12 Calibration Data Sheet; PM-12 Serial Number 12060; Location MAF; 06/26/2017
- PM-12 Calibration Data Sheet; PM-12 Serial Number 12061; Location MAF; 06/27/2017

71151—Performance Indicator Verification

Procedures:

- LS-AA-2001; Collecting and Reporting of NRC Performance Indicator Data; Revision 14
- LS-AA-2010; Monthly Data Elements for NRC/WANO Unit/Reactor Shutdown Occurrences; Revision 5
- LS-AA-2030; Monthly Data Elements for NRC Unplanned Power Changes per 7000 Critical Hours; Revision 5

Other:

- Monthly Performance Indicator Data compiled by the Licensee from January 2017 through December 2017

71152—Identification and Resolution of Problems

Procedures:

- NO-AA-10; Quality Assurance Topical Report; Revision 92
- PI-AA-120; Issue Identification and Screening Process; Revision 8
- PI-AA-125; Corrective Action Program (CAP) Procedure; Revision 6
- PI-AA-125-1001; Root Cause Analysis Manual; Revision 3