



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
2443 WARRENVILLE ROAD, SUITE 210
LISLE, ILLINOIS 60532-4352

May 7, 2019

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

SUBJECT: CLINTON POWER STATION, UNIT 1—NRC INTEGRATED INSPECTION
REPORT 05000461/2019001

Dear Mr. Hanson:

On March 31, 2019, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Clinton Power Station, Unit 1. On April 18, 2019, the NRC inspectors discussed the results of this inspection with Ted Stoner and other members of your staff. The results of this inspection are documented in the enclosed report.

NRC inspectors documented one finding of very low safety significance (Green) in this report. The finding did not involve a violation of NRC requirements.

If you disagree with a cross-cutting aspect assignment or a finding not associated with a regulatory requirement in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your disagreement, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001; with copies to the Regional Administrator, Region III; and the NRC resident inspector at Clinton.

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/

Kenneth Riemer, Chief
Branch 1
Division of Reactor Projects

Docket No.: 05000461

License No.: NPF-62

Enclosure:

Inspection Report 05000461/2019001

cc: Distribution via LISTSERV®

Letter to Bryan Hanson from Kenneth Riemer dated May 7, 2019

SUBJECT: CLINTON POWER STATION, UNIT 1—NRC INTEGRATED INSPECTION REPORT 05000461/2019001

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**U.S. NUCLEAR REGULATORY COMMISSION
Inspection Report**

Docket Number: 05000461

License Number: NPF-62

Report Number: 05000461/2019001

Enterprise Identifier: I-2019-001-0050

Licensee: Exelon Generation Company, LLC

Facility: Clinton Power Station, Unit 1

Location: Clinton, IL

Inspection Dates: January 01, 2019 to March 31, 2019

Inspectors: A. Athar, Resident Inspector
I. Hafeez, Reactor Inspector
S. Mischke, Illinois Emergency Management Agency
V. Petrella, Reactor Inspector
E. Sanchez Santiago, Senior Resident Inspector
D. Sargis, Resident Inspector
M. Ziolkowski, Physical Security Inspector

Approved By: Kenneth Riemer, Chief
Branch 1
Division of Reactor Projects

SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring the licensee’s performance by conducting a quarterly inspection at Clinton Power Station, Unit 1 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. Findings and violations being considered in the NRC’s assessment are summarized in the table below.

List of Findings and Violations

Failure To Take Conservative Action Resulting in an Automatic Reactor Scram			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Initiating Events	Green FIN 05000461/2019001-01 Open/Closed	[H.1] - Resources	71153
A self-revealed Green finding was identified for the failure to follow Station Procedure OP-AA-300, “Reactivity Management,” Revision 12. Specifically, the licensee failed to take conservative action in response to pressure control challenges experienced during the October 28, 2018, soft shutdown, which ultimately led to an automatic reactor scram.			

Additional Tracking Items

Type	Issue Number	Title	Report Section	Status
LER	05000461/2017-008-01	LER 2017-008-01 for Clinton Power Station, Unit 1, Division 3 Shutdown Service Water Pump Start Failure	71153	Closed
LER	05000461/2018-003-00	Load Driver Card Failure Resulting in High Pressure Core Spray Inoperability	71153	Closed
LER	05000461/2018-003-01	LER 2018-003-01 for Clinton, Unit 1, Load Driver Card Failure Resulting in High Pressure Core Spray Inoperability	71153	Closed
LER	05000461/2018-005-00	LER 2018-005-00 for Clinton, Unit 1, Unplanned Reactor Scram During Maintenance Outage Due to High Intermediate Range Monitor Flux	71153	Closed
LER	05000461/2018-005-01	LER 2018-005-01 for Clinton Power Station, Unit 1, Unplanned Reactor Scram During Maintenance Outage Due to High Intermediate Range Monitor Flux	71153	Closed

PLANT STATUS

The unit operated at full achievable power (~99 percent power) and approximately 1120 MWe for the majority of the inspection period.

On March 23, 2019, unit power was lowered to approximately 80 percent to perform control rod pattern adjustments, perform quarterly surveillances on control rods, main steam isolation valves, turbine stop valves/combined intermediate valves, and turbine control valves. The unit returned to full power the same day.

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 Sample (IP Section 03.03) (1 Sample)

The inspectors evaluated readiness for impending adverse weather conditions for high winds condition and tornado watch for the area on March 14, 2019.

71111.04 - Equipment Alignment

Partial Walkdown (IP Section 02.01) (4 Samples)

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

- (1) reactor core isolation cooling (protected during high pressure core spray system outage window) on January 9, 2019
- (2) division 2 diesel and fuel oil storage tank during division 1 diesel system outage window on January 16, 2019
- (3) fuel pool cooling and cleanup train 'B' (during train 'A' system outage window) on January 17, 2019
- (4) high pressure core spray during reactor core isolation cooling system outage window on January 25, 2019

71111.04S - Equipment Alignment

Complete Walkdown (IP Section 02.02) (1 Sample)

The inspectors evaluated system configurations during a complete walkdown of the emergency diesel generators on March 25, 2019.

71111.05Q - Fire Protection

Quarterly Inspection (IP Section 03.01) (5 Samples)

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

- (1) Fire Zone CB-3a, auxiliary electrical equipment room, elevation 781'-0" on January 24, 2019
- (2) Fire Zone A-1a, auxiliary building general access area (north), elevation 707'-6" on February 20, 2019
- (3) Fire Zone A-2a, reactor core isolation cooling pump room, elevation 707'-6" on February 20, 2019
- (4) Fire Zone A-2b, residual heat removal 'A' equipment room, elevation 707'-6" on February 21, 2019
- (5) Fire Zone A-3f, division 2 switchgear room, elevation 781'-0" on February 21, 2019

71111.11Q - Licensed Operator Requalification Program and Licensed Operator Performance

Licensed Operator Performance in the Actual Plant/Main Control Room (IP Section 03.01) (1 Sample)

The inspectors observed and evaluated licensed operator performance in the control room during a single rod scram after the loss of the feedwater heater on February 14, 2019, and a planned reactor downpower for surveillance testing on March 23, 2019.

Licensed Operator Requalification Training/Examinations (IP Section 03.02) (1 Sample)

The inspectors observed and evaluated licensed operator requalification training on February 20, 2019.

71111.13 - Maintenance Risk Assessments and Emergent Work Control

Risk Assessment and Management Sample (IP Section 03.01) (5 Samples)

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

- (1) verification of Green risk for a high pressure core spray system outage window on January 9, 2019
- (2) planned Yellow risk for division 1 emergency diesel generator system outage window on January 16, 2019
- (3) planned Yellow risk for reactor core isolation cooling system outage window on January 24, 2019

- (4) unplanned Yellow risk for a division 1 emergency diesel generator unavailability on February 22, 2019
- (5) unplanned Orange risk due to reserve auxiliary transformer static Var compensator trip concurrent with planned division 3 emergency diesel generator maintenance on March 12, 2019

71111.15 - Operability Determinations and Functionality Assessments

Operability Determinations and Functionality Assessments (IP Section 02.01) (6 Samples)

The inspectors evaluated the following operability determinations and functionality assessments:

- (1) Action Request 4217859, "Division 2 12CY DG Soakback Pump Oil Leak 1DG626PA" on February 6, 2019
- (2) Action Request 4221273, "EOID Several Throughwall Pinhole Leaks Downstream of 1SX013D" on February 18, 2019
- (3) Action Request 4224501, "Instrument OOT, 0TIVG022, Trend Code B4" on February 27, 2019
- (4) Action Request 4226666, "Completed 9053.04 with Portions Unsat Due to Deficiency" and Action Request 4226637, "9053.07D001 ATM E12-N653B Value at Action Range" on March 7, 2019
- (5) Action Request 4228408, "Received Annunciator 5005-1H, 3B, & 5006-2H" on March 11, 2019
- (6) Action Request 4210485, "Div 3 NSPS Failed Due to Card Failure" on March 13, 2019

71111.19 - Post Maintenance Testing

Post Maintenance Test Sample (IP Section 03.01) (6 Samples)

The inspectors evaluated the following post maintenance tests:

- (1) testing of reactor core isolation cooling valve 1E51-F054 after maintenance on January 24, 2019
- (2) testing of standby gas treatment 'B' after system outage window on February 13, 2019
- (3) testing of the 1A diesel generator fuel oil priming pump after maintenance on February 21, 2019
- (4) testing of standby gas treatment train 'A' after station outage window on February 22, 2019
- (5) testing of residual heat removal 'B' system valve 1E12-F024B after maintenance on March 4, 2019
- (6) testing of residual heat removal 'B' system valve 1E12-F064B after maintenance on March 4, 2019

71111.22 - Surveillance Testing

The inspectors evaluated the following surveillance tests:

In Service Testing (IST) (IP Section 03.01) (1 Sample)

Clinton Power Station (CPS) 9015.01, "Standby Liquid Control Pump 'A' Operability" on January 31, 2019

Surveillance Testing (IP Section 03.01) (4 Samples)

- (1) CPS 9080.03, "DG 1C Operability" on February 6, 2019
- (2) CPS 9031.16, Step 8.2, "Division 2 Manual Scram Functional Test" on March 1, 2019
- (3) CPS 9015.01, "Standby Liquid Control Valve Operability" on March 1, 2019
- (4) CPS 9014.01, "RCP Sys Withdrawal Limitation Test" on March 2, 2019

OTHER ACTIVITIES – BASELINE

71151 - Performance Indicator Verification

The inspectors verified licensee performance indicators submittals listed below:

IE01: Unplanned Scrams per 7000 Critical Hours Sample (IP Section 02.01) (1 Sample)

Unit 1 (01/01/2018 - 12/31/2018)

IE03: Unplanned Power Changes per 7000 Critical Hours Sample (IP Section 02.02) (1 Sample)

Unit 1 (01/01/2018 - 12/31/2018)

IE04: Unplanned Scrams with Complications (USwC) Sample (IP Section 02.03) (1 Sample)

Unit 1 (01/01/2018 - 12/31/2018)

71152 - Problem Identification and Resolution

Annual Follow-Up of Selected Issues (IP Section 02.03) (1 Sample)

The inspectors reviewed the licensee's implementation of its corrective action program related to the following issues:

Action Requests 4179083, 4180736, 4180994, 4181437; "October 2018 Trips of the RAT SVC [Static Var Compensator]"

71153 – Follow-Up of Events and Notices of Enforcement Discretion

Event Report (IP Section 03.02) (3 Samples)

The inspectors evaluated the following licensee event reports which can be accessed at <https://lersearch.inl.gov/LERSearchCriteria.aspx>:

- (1) LER 05000461/2017-008-01, Division 3 Shutdown Service Water Pump Start Failure (ADAMS Accession: ML18354A733). The inspectors reviewed the updated LER submittal. The previous LER submittal was reviewed in Inspection Report 05000461/2018001. No additional findings or violations were identified.
- (2) LER 05000461/2018-003-00 and 05000461/2018-003-01, Load Driver Card Failure Resulting in High Pressure Core Spray Inoperability (ADAMS accession: ML19042A077). The inspectors determined that it was not reasonable to foresee or correct the cause discussed in the LER therefore no performance deficiency was identified. The inspectors also concluded that no violation of NRC requirements occurred.
- (3) LER 05000461/2018-005-00 and 05000461/2018-005-01, Unplanned Reactor Scram During Maintenance Outage due to High Intermediate Range Monitor Flux (ADAMS accession: ML19079A156). The circumstances surrounding this LER are documented in the Results section.

INSPECTION RESULTS

Observation	71152
<p>During the inspection quarter, the inspectors reviewed the licensees equipment corrective action program evaluation associated with Action Requests 4179083, 4180736, 4180994, and 4181437 which documented multiple trips of the reserve auxiliary transformer 'B' static Var compensator. Specifically, from October 3 through 8, 2018, the reserve auxiliary transformer 'B' static Var compensator tripped four times within 7 days. The inspectors assessed the following performance attributes in their review:</p> <ul style="list-style-type: none"> • complete and accurate identification of the problem in a timely manner commensurate with its safety significance and ease of discovery; • consideration of the extent of condition, generic implications, common cause, and previous occurrences; • evaluation and disposition of operability/functionality/reportability issues; • classification and prioritization of the resolution of the problem commensurate with safety significance; • identification of corrective actions, which were appropriately focused to correct the problem; and • completion of corrective actions in a timely manner commensurate with the safety significance of the issue. <p>The inspectors selected this sample for review because of the risk significance of the reserve auxiliary transformer. Without the static Var compensator, the reserve auxiliary transformer is considered inoperable and in a 72 hour limited condition for operation in accordance with Technical Specification 3.8.1. The inspectors also selected this sample due to the frequency of the failures. Four failures in 1 week was higher than the previous failures this system had experienced. As a result of their review, the inspectors did not identify a performance deficiency associated with this issue.</p>	

Failure To Take Conservative Action Resulting in an Automatic Reactor Scram			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Initiating Events	Green FIN 05000461/2019001-01 Open/Closed	[H.1] - Resources	71153
<p>A self-revealed Green finding was identified for the failure to follow Station Procedure OP-AA-300, "Reactivity Management," Revision 12. Specifically, the licensee failed to take conservative action in response to pressure control challenges experienced during the October 28, 2018, soft shutdown, which ultimately led to an automatic reactor scram.</p> <p><u>Description:</u></p> <p>On October 28, 2018, the licensee was performing a plant shutdown to enter a maintenance outage and repair multiple issues. The plant shutdown was being performed in accordance with CPS 3006.01, "Unit Shutdown," utilizing a manual control rod insertion sequence which results in all control rods being completely inserted prior to taking the mode switch to shutdown. This is also referred to as a soft shutdown. This method of shutting down the reactor requires precise controls during low power operations to avoid reactivity management issues.</p> <p>At approximately 1:32 a.m. on October 28, 2018, the station removed the turbine generator from service. As expected, bypass valves opened to control pressure. Specifically, the number 1 and 2 bypass valves went to full open and the number 3 bypass valve opened to approximately 32 percent. With bypass valves in automatic control, their position was directly dependent upon reactor power. The licensee then entered Mode 2 and commenced insertion of control rods to achieve a full shutdown in accordance with Section 8.7 of CPS 3006.01. Step 8.7.1 of this procedure stated, "Establish pressure control on the Turbine Bypass Valves." A note in this section stated, "Section 8.7.3 can be performed at this time or any time during rod insertion to assist with pressure control." Section 8.7.3 stated, "If a cooldown is not desired or Decay heat will not support the steam loads, then the following loads may be removed from service as required to minimize cooldown." The loads included in this step were: main steam line drain valves, vacuum pumps, steam jet air ejectors, and turbine generator drain valves. The licensee isolated all of the steam loads except the main steam line drain valves.</p> <p>At 1:56 a.m., the number 3 bypass valve closed and the number 2 bypass valve started to close to maintain reactor pressure. These two bypass valves closed more quickly than they had during previous soft shutdowns, as the inspectors determined by comparing bypass valve position traces from this shutdown to those of previous soft shutdowns. The operating crew did not recognize this unexpected situation. At 3:40 a.m., the operators identified the number 1 bypass valve was closing more quickly than they were expecting. The operators discussed this unexpected situation and considered closing the main steam line drains in order to minimize the steam loads that they were able to control, but they did not pursue this action at that time.</p> <p>In addition, the at-the-controls licensed reactor operator and the licensed Senior Reactor Operator overseeing reactivity manipulations made the decision to jack open the number 1 bypass valve to prevent it from fully closing while attempting to stabilize reactor pressure. By taking this action, the operators increased the steam load to the reactor rather than reducing it. This resulted in lowering reactor pressure. The licensee subsequently decided to take the number 1 bypass valve off its jack and allow it to close. At that point the starting point for reactor pressure as it related to when the bypass valve goes closed was approximately 100 psig lower than during previous shutdowns. When the number 1 bypass valve closed, the drop in</p>			

reactor pressure was 190 psig in 15 minutes which was faster than previously observed. At this point the operators decided to quickly close the main steam line drain valves to attempt to arrest the rapid pressure drop. This occurred at 4:44 a.m., approximately 1 hour after the operators identified potential pressure control issues and discussed the closure of these valves. The rapid closure of these valves caused reactor water level to lower, which in turn resulted in a surge of feedwater into the reactor vessel. The addition of colder water introduced a spike in positive reactivity and power exceeded the intermediate flux setpoint and resulted in an automatic reactor SCRAM. The power spike that resulted in the SCRAM did not exceed any safety limits described in the licensee's Technical Specifications.

Station Procedure OP-AA-300, Revision 12, "Reactivity Management," Revision 12, was the procedure established to describe and define the reactivity management program within Exelon Nuclear and define the responsibilities of station personnel in order to establish reactivity management philosophy and practices. Section 4.9 of this procedure defined the role of the reactor operator. Specifically Subsection 4.9.2 stated, "Takes conservative action, including manual scram/reactor trip, when abnormal reactor conditions are encountered, and does not rely solely on the reactor protection system to protect the reactor during reactivity events." While the pressure control guidance described in CPS 3006.01 did not specifically prescribe actions required to address the pressure control challenges the operators faced, it did provide the operators with guidance on allowable methods to control reactor pressure during low power operations. Though the operators discussed taking additional actions, the decision to delay closure of the main steam line drain valves was nonconservative. Closing the main steam line drain valves sooner would have reduced the rate of the pressure decrease that contributed to the number one bypass valve closing more quickly than the crew had anticipated. Also, the action to jack open the number 1 bypass valve was non-conservative in that it contributed to the pressure control issues, rather than arresting it. Lastly, given the unexpected trend of reactor pressure and bypass valve position, the Reactor Operator would be expected to take conservative action to place the plant in a safe condition up to and including a manual reactor SCRAM. Instead, the crew took the action to close the main steam line drains after the significant drop in pressure, which resulted in the chain of events that ended in a reactivity excursion and subsequent automatic scram on high intermediate range monitor neutron flux.

Based on the inspectors' review of this event, they concluded the licensee failed to take conservative action in response to pressure control challenges experienced during the October 28, 2018, soft shutdown, which ultimately led to an automatic reactor scram.

As a result of the unplanned scram, the licensee entered this issue into their corrective action program as Action Request 4188538 and conducted a root cause analysis. The licensee identified the root cause as "pressure control guidance was not adequate to address the cooldown rate conditions during a soft shutdown."

Corrective Actions: The corrective actions planned to address this issue include modifications to the shutdown procedure as well as additional training on pressure control and low power operations for the licensed operators.

Corrective Action Reference: Issue Report 4188538, "Reactor SCRAM on High IRM Flux"

Performance Assessment:

Performance Deficiency: The inspectors determined that failure to implement OP-AA-300, "Reactivity Management," was a performance deficiency that was within the licensee's ability to foresee and correct. Specifically, the licensee failed to take conservative action in response to

pressure control challenges experienced during the October 28, 2018, soft shutdown, which ultimately led to an automatic reactor scram.

Screening: The inspectors determined the performance deficiency was more than minor because it was associated with the Human Performance attribute of the Initiating Events cornerstone. The performance deficiency also adversely affected the cornerstone objective of limiting the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Specifically, failing to implement OP-AA-300, "Reactivity Management," led to a reactivity excursion and a subsequent automatic scram.

Significance: The inspectors assessed the significance of the finding using Appendix A, "Significance Determination of Reactor Inspection Findings for At - Power Situations". The inspectors determined that the finding was of very low safety significance (Green) because it was a condition that caused a reactivity excursion and a subsequent automatic reactor scram but did not cause the loss of mitigation equipment.

Cross-Cutting Aspect: H.1 - Resources: Leaders ensure that personnel, equipment, procedures, and other resources are available and adequate to support nuclear safety. Specifically, the licensee procedures did not include abort criteria or guidance for the operators to take actions to address pressure control when in low power operations. This contributed to the failure to take conservative actions prior to the automatic reactor scram.

Enforcement:

Inspectors did not identify a violation of regulatory requirements associated with this finding.

EXIT MEETINGS AND DEBRIEFS

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

- On April 18, 2019, the inspector presented the quarterly integrated inspection results to Mr. T. Stoner and other members of the licensee staff.

DOCUMENTS REVIEWED

71111.04—Equipment Alignment

- Protected Equipment Posting Map RCIC OOS; 781' Elevation of Control Building
- CPS 3309.01V002; High Pressure Core Spray Instrument Valve Lineup; Revision 9
- CPS 3309.01V001; High Pressure Core Spray Valve Lineup; Revision 11b
- CPS 3309.01E001; High Pressure Core Spray Electrical Lineup; Revision 8b
- CPS 3310.01E001; Reactor Core Isolation Cooling Electrical Lineup; Revision 16
- CPS 3310.01V001; Reactor Core Isolation Cooling Valve Lineup; Revision 13
- CPS 3310.01V002; RCIC Instrument Valve Lineup; Revision 9e
- CPS 3506.01V001; Diesel Generator and Support Systems Valve Lineup; Revision 13a
- CPS 3506.01E001; Diesel Generator and Support Systems Electrical Lineup; Revision 18c
- CPS 3506.01V002; Diesel Generator and Support Systems Instrument Valve Lineup; Revision 11b
- CPS 3506.01P005; Placing Division 2 Diesel Generator 1B in Standby; Revision 0d
- CPS 3317.01E001; Fuel Pool Cooling and Cleanup Electrical Lineup; Revision 13c
- CPS 3317.01V001; Fuel Pool Cooling and Cleanup Valve Lineup; Revision 12a
- WO 219973-01; CI Perform Calibration (8801.01); 10/28/1998

- WO 220173-01; CI Perform Instrument Calibration IAW CPS 8801.01; 10/05/1998
- AR 4209561; Local Instrument Rack Root Valves Found Closed; 01/09/2019

71111.05AQ—Fire Protection Annual/Quarterly

- CPS 1893.04M102; 707-781 Auxiliary: RHR 'A' Pump and Heat Exchanger Room Prefire Plan; Revision 5
- CPS 1893.04M103; 707 Auxiliary: RCIC Pump Room Prefire Plan; Revision 5
- CPS 1893.04M003; Prefire Plan Legend; Revision 1
- CPS 1893.04M130; 781-790 Auxiliary: Div 2 Switchgear Prefire Plan; Revision 5a
- CPS 1893.04M100; 707 Auxiliary: General Access Area Prefire Plan; Revision 5
- CPS 1893.04M351; 781 Control: Aux. Elect. Equip., Inverter & Battery Rooms Prefire Plan; Revision 7d
- OP-AA-201-012-1001; Operations on-line Fire Risk Management; Revision 2
- Radiological Survey Map; Survey # 2019-031963; 01/10/2019
- Radiological Survey Map; Survey # 2019-031565; 01/03/2019

71111.11—Licensed Operator Requalification Program and Licensed Operator Performance

- CPS 4005.01; Loss of Feedwater Heating; Revision 19
- CPS 3304.02; Rod Control and Information System (RC&IS); Revision 22e
- AR 4219934; Received 5006-3G RC&IS INOP; 02/14/2019
- AR 4220210; 3B FW Heater Isolated Inputs Due to High Level Trip; 02/14/2019
- AR 4220715; 3B FWH Isolation Troubleshooting Documentation; 02/16/2019
- AR 4220765; FW Feedwater Iron FE Elevated Above Target After Transient; 02/15/2019
- AR 4220753; Not Fully Closed Low Pressure Heat DRN Valve 5015-3F; 02/16/2019
- AR 4220183; Packing Leak on 1HD023B; 02/14/2019

71111.13—Maintenance Risk Assessments and Emergent Work Control

- CPS 3506.01C007; Checklist to Extend 72 Hour LCO Action to 14 Day LCO for Diesel Generators (ITS 3.8.1.B.4 bases); Revision 0
- Protected Equipment Posting Map LPCS OOS; 737' Elevation of the Control/DG Building
- Protected Equipment Posting Map LPCS OOS; 762' Elevation Diesel Generator Building
- Protected Equipment Posting Map LPCS OOS; 719' Elevation of the Control/DG Building
- Protected Equipment Posting Map LPCS OOS; 781' Elevation of the Control Building
- Protected Equipment Posting Map LPCS OOS; 712' Elevation of the Fuel Building
- Protected Equipment Posting Map LPCS OOS; 755' Elevation of the Fuel Building
- Protected Equipment Posting Map LPCS OOS; 781' Elevation of the Control & DG Building
- Protected Equipment Posting Map LPCS OOS; 781' Elevation of the Auxiliary Building
- Protected Equipment Posting Map LPCS OOS; MCR Postings
- Protected Equipment Posting Map Div 1 DG OOS; 781' Elevation of the Auxiliary Building
- Protected Equipment Posting Map Div 1 DG OOS; 737' Elevation of the Control/DG Building
- Protected Equipment Posting Map Div 1 DG OOS; 719' Elevation of the Control/DG Building
- Protected Equipment Posting Map Div 1 DG OOS; 781' Elevation of the Control Building
- Protected Equipment Posting Map Div 1 DG OOS; 712' Elevation of the Fuel Building
- Protected Equipment Posting Map Div 1 DG OOS; 755' Elevation of the Fuel Building
- Protected Equipment Posting Map Div 1 DG OOS; MCR Postings
- EC 354296; Review Acceptability of One Cooler Operation for ECCS System Availability; Revision 0
- OP-AA-108-117; Protected Equipment Program; Revision 5

- WC-AA-101; On-line Work Control Process; Revision 28
- WC-AA-104-F-01; MM - Replace Relief Valve 1A128B (WO 4863030-01); Revision 0

71111.15—Operability Determinations and Functionality Assessments

- WO 4896518-01, -02; Received Annunciator 5005-1H, 3B, & 5006-2H; 03/11/2019
- WO 1624252-01; 1DG626PA, EOID Oil Leak on Div 2 DG Turbo Soakback Pump; 03/14/2019
- WO 1865591-01; 1SX29BA-3 NDE Exam (UT); 03/23/2017
- WO 1136842-01; 1SX29BB-3 Piping Degradation Due to Cavitation; 03/23/2009
- WO 4693111-01; NDE - UT 1SX29BA-3" Downstream of 1SX23M Div. 1 Orifice; 01/07/2019
- MA-AA-716-004; IR 4228408, Received Annunciator 5005-1H & 5006-2H; Revision 15
- AR 4196637; Received 5005-1H APRM 'B' UPSCL Trip/Inop - MCRD; 11/20/2018
- AR 4228408; Received Annunciator 5005-1H, 3B, & 5006-2H; 03/11/2019
- AR 3961117; EOID Div 2 12CY DG Soakback Pump Oil Leak 1DG626PA; 01/09/2017
- AR 4217859; NRC ID: Div II 12 Cylinder DG Soakback PMP Oil Leak 1DG626PA; 02/06/2019
- AR 4226938; NRC Identified: Oil Drop Observed Underneath 1DG661; 03/06/2019
- AR 4207631; Div 1 ADS Air Bottle Pressure Lowering, 1A128B Leaking; 01/02/2019
- AR 4222556; ASME Code Case N-513-1, Augmented Volumetric Exam of 1SX29BB; 02/22/2019
- AR 4224501; Inst OOT, 0TIVG022, Trend Code B4; 02/27/2019
- AR 4200136; 1E12F096 Failed to Close During 9053.04C002; 12/04/2018
- AR 4226637; 9053.07D001 ATM E12-N653B Value at Action Range; 03/05/2019
- AR 4226666; Completed 9053.04 with Portions Unsat Due to Deficiency; 12/04/2018
- EC 627300; Through-Wall Pinhole Leaks on SX Strainer 'A' Backwash Piping, Downstream of Orifice 1SX23M; Revision 0
- Case N-513-3; Evaluation Criteria for Temporary Acceptance of Flaws in Moderate Energy Class 2 or 3 Piping Section XI, Division 1; 01/26/2009
- CPS 9053.04C002; RHR Loop B Valve Operability; Revision 3e
- CPS 9053.07; RHR B/C Pumps & RHR B/C Water Leg Pump Operability; Revision 48b

71111.19—Post Maintenance Testing

- CPS 9067.01D001; SGTS Train Flow/Heater Operability Data Sheet; Revision 28c
- CPS 3404.01; Fuel Building HVAC (VF); Revision 15a
- CPS 9067.01; Standby Gas Treatment System Train Flow/Heater Operability; Revision 31e
- AR 4219625; SGTS 'B' Flow Oscillations Observed During PMT; 02/13/2019
- AR 4221847; 1A DG Fuel Priming Pump Motor Sparking; 02/20/2019
- WO 4568982-01, -02, -03, -04, -05; MM: OFEVG104 Remove Flow Element Clean and Inspect; 03/14/2019
- WO 4710022-04; 1E51F054 Overhaul Actuator and Replace Accessories; 01/22/2019
- Just-In-Time Operating Experience; Scaffold Installation and Disassembly; IT-087, Revision 4, June 2014
- WO 1864254-03; 8410.04 Molded Case Circuit Breaker/Bucket; 03/04/2019
- WO 1864255-03; 8410.04 Molded Case Circuit Breaker/Bucket; 03/04/2019
- WO 4680593-01; 9067.03R20 OP Standby Gas Treatment System Oper (Train A); 02/21/2019
- WO 1569368-03; 8410.04 Molded Case Circuit Breaker/Bucket; 02/22/2019
- WO 4647088-03; EM PMT 0FZVG006B/0VG04YA; 02/20/2019
- WO 4858651-01; 9066.01R20 OP Secondary CNMT Isolation Damper Oper; 02/22/2019
- WO 4829109-03, -04; EM PMT 0FZVG004/0VG01YA Damper; 10/02/2018
- WO 4879427-01; 9067.01A20 OP SGTS Train Flow/Heater Oper (Train A); 02/21/2019
- WO 4889898-01, -03, -04; 1A DG Fuel Priming Pump Motor Sparking; 02/21/2019

- OPEX - 2015 Exelon Hand Injury Trend

71111.22—Surveillance Testing

- CPS 9031.16; Manual Scram Channel Functional/SDV Hi Level Bypass Test; Revision 31c
- CPS 9015.01D001; SLC Pump and Valve Data Sheet; Revision 38c
- CPS 9015.01; Standby Liquid Control System Operability; Revision 42
- CPS 9080.03; Diesel Generator 1C Operability - Manual and Quick Start Operability; Revision 35c
- WO 4861901-02; 9031.16R20 CF Manual Scram CF (Sect. 8.1,2,3,4); 03/14/2019
- WO 4863980-03; 9015.01A23 OP SLC Pump Operability (SLC Pump A); 02/28/2019
- WO 4837120-01; 9015.01A23 OP SLC Pump Operability (SLC Pump A); 11/29/2018
- WO 4791845-01; 9015.01A23 OP SLC Pump Operability (SLC Pump A); 09/07/2018
- WO 4765529-01; 9015.01A23 OP SLC Pump Operability (SLC Pump A); 05/15/2018
- WO 4860936-01; 9014.01R20 OP Rod Withdrawal Limitation Test (2-Notch); 03/14/2019
- WO 4860936-01; 9014.01R20 OP Rod Withdrawal Limitation Test (2-Notch); 03/14/2019
- WC-AA-104; Risk Screening/Mitigation Plan; Revision 24
- AR 4217757; Procedure Enhancement 9080.03 Regarding Pre-Start Checks; 02/06/2019
- AR 4226243; NRC Questions Regarding Performance of 9015.01 for SLC A; 03/04/2019
- AD-AA-101-F-10; RPC Sys Withdrawal Limitation Test; Revision 1
- WC-AA-104; Predefine. OP 9014.01 Rod Withdrawal Limitation Test (2-Notch); Revision 24
- Special Instructions from the Reactor Engineer; Period Covering 03/01-04/2019
- PI-AA-125-1003; October 2018 Trips of the RAT SVC; Revision 4

71153—Follow-Up of Events and Notices of Enforcement Discretion

- IRM Scram 10/28/2018; Root Cause Investigation Interview/Statement Summaries
- PI-AA-125-1001; Reactor Scram on High IRM Flux; Revision 3
- CPS 3006.01; Unit Shutdown; Revision 46b
- OP-AA-300; Reactivity Management; Revision 12