



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

REGION I
2100 RENAISSANCE BOULEVARD, SUITE 100
KING OF PRUSSIA, PENNSYLVANIA 19406-2713

November 4, 2021

Mr. David P. Rhoades
Senior Vice President
Exelon Generation Company, LLC
President & Chief Nuclear Officer
Exelon Nuclear
4300 Winfield Road
Warrenville, IL 60555

SUBJECT: R.E. GINNA NUCLEAR POWER PLANT, LLC – INTEGRATED INSPECTION
REPORT 05000244/2021003

Dear Mr. Rhoades:

On September 30, 2021, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at R.E. Ginna Nuclear Power Plant, LLC. On October 28, 2021, the NRC inspectors discussed the results of this inspection with Mr. Paul Swift, Site Vice President, and other members of your staff. The results of this inspection are documented in the enclosed report.

One Severity Level IV violation without an associated finding is documented in this report. We are treating this violation as a non-cited violation (NCV) consistent with Section 2.3.2 of the Enforcement Policy.

No NRC identified or self-revealing findings were identified during this inspection.

If you contest the violation or the significance or severity of the violation documented in this inspection report, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001; with copies to the Regional Administrator, Region I; the Director, Office of Enforcement; and the NRC Resident Inspector at R.E. Ginna Nuclear Power Plant, LLC.

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 Title 10 of the *Code of Federal Regulations* (10 CFR) 2.390, "Public Inspections, Exemptions, Requests for Withholding."

Sincerely,

Erin E. Carfang, Chief
Projects Branch 1
Division of Operating Reactor Safety

D. Rhoades

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Docket No. 05000244
License No. DPR-18

Enclosure:
As stated

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SUBJECT: R.E. GINNA NUCLEAR POWER PLANT, LLC – INTEGRATED INSPECTION REPORT 05000244/2021003 DATED NOVEMBER 4, 2021

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

Docket Number: 05000244

License Number: DPR-18

Report Number: 05000244/2021003

Enterprise Identifier: I-2021-003-0033

Licensee: Exelon Generation Company, LLC

Facility: R.E. Ginna Nuclear Power Plant, LLC

Location: Ontario, New York

Inspection Dates: July 01, 2021 to September 30, 2021

Inspectors: J. Schussler, Senior Resident Inspector
S. Monarque, Resident Inspector
K. Mangan, Senior Reactor Inspector
S. Shaffer, Senior Health Physicist

Approved By: Erin E. Carfang, Chief
Projects Branch 1
Division of Operating Reactor Safety

Enclosure

SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring the licensee's performance by conducting an integrated inspection at R.E. Ginna Nuclear Power Plant, LLC, 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

Failure to Submit a Licensee Event Report for a Condition Prohibited by Technical Specifications			
Cornerstone	Severity	Cross-Cutting Aspect	Report Section
Not Applicable	Severity Level IV NCV 05000244/2021003-01 Open/Closed	Not Applicable	71111.15
The inspectors identified a Severity Level (SL) IV non-cited violation (NCV) of Title 10 of <i>The Code of Federal Regulations</i> (10 CFR) 50.73(a)(2)(i)(B) when Exelon did not submit a licensee event report (LER) within 60 days of discovery, a condition which was prohibited by the plant's technical specifications. Specifically, Exelon failed to notify the NRC when the 'A' service water pump was inoperable for a duration that exceeded its TS completion time.			

Additional Tracking Items

Type	Issue Number	Title	Report Section	Status
URI	05000244/2020013-01	Procedure Adequacy to Verify Supplemental Indications when Performing In-service Test Valve Position Indication Verification	71152	Closed

PLANT STATUS

Ginna began the inspection period at 100 percent power. The unit remained at, or near, 100 percent 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 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. Starting on March 20, 2020, in response to the National Emergency declared by the President of the United States on the public health risks of the coronavirus (COVID-19), resident and regional inspectors were directed to begin telework and to remotely access licensee information using available technology. During this time, the resident inspectors performed periodic site visits each week, increasing the amount of time on-site as local COVID-19 conditions permitted. As part of their on-site activities, resident inspectors conducted plant status activities as 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 risk significant activities; and completed on-site portions of IPs. In addition, resident and regional baseline inspections were evaluated to determine if all or a portion of the objectives and requirements stated in the IP could be performed remotely. If the inspections could be performed remotely, they were conducted per the applicable IP. In some cases, portions of an IP were completed remotely and on-site. The inspections documented below met the objectives and requirements for completion of the IP.

REACTOR SAFETY

71111.01 - Adverse Weather Protection

Seasonal Extreme Weather Sample (IP Section 03.01) (1 Sample)

- (1) The inspectors evaluated readiness for seasonal extreme weather conditions prior to the onset of high temperatures and heat advisories for the following systems:
 - Station 13A, off-site electrical switchyard on July 15, 2021
 - Station 13, on-site electrical switchyard on July 22, 2021
 - Emergency diesel rooms, battery rooms, safety injection pumps and auxiliary building ventilation on August 12, 2021

71111.04 - Equipment Alignment

Partial Walkdown Sample (IP Section 03.01) (1 Sample)

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

- (1) 'C' safety injection following safety injection system surveillance testing on July 12, 2021

71111.05 - Fire Protection

Fire Area Walkdown and Inspection Sample (IP Section 03.01) (5 Samples)

The inspectors evaluated the implementation of the fire protection program by conducting a walkdown and performing a review to verify program compliance, equipment functionality, material condition, and operational readiness of the following fire areas:

- (1) Turbine building basement on July 14, 2021
- (2) Flex equipment storage building on July 15, 2021
- (3) 'B' emergency diesel generator cable vault on July 28, 2021
- (4) Screen house basement on August 20, 2021
- (5) Air handling room on August 27, 2021

71111.06 - Flood Protection Measures

Inspection Activities - Internal Flooding (IP Section 03.01) (1 Sample)

The inspectors evaluated internal flooding mitigation protections in the following areas:

- (1) 'B' emergency diesel generator cable vault, manhole cover gasket and sump pump on July 28, 2021

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)

- (1) The inspectors observed and evaluated licensed operator performance in the control room during shift turnover on August 3, 2021

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

- (1) The inspectors observed and evaluated operator performance in the simulator during licensed operator requalification training on August 10, 2021. The training involved a scenario that contained, but was not limited to, high vibrations on a reactor coolant pump, overcurrent on a safety bus, and a steam generator tube rupture.

71111.12 - Maintenance Effectiveness

Maintenance Effectiveness (IP Section 03.01) (4 Samples)

The inspectors evaluated the effectiveness of maintenance to ensure the following structures, systems, and components remain capable of performing their intended function:

- (1) 'A' service water pump motor on July 22, 2021
- (2) Containment heating, ventilation and air conditioning systems on August 12, 2021
- (3) Control building; control room emergency air treatment system; and heating, ventilation and air conditioning systems on August 18, 2021
- (4) 'A' auxiliary feedwater pump on August 24, 2021

Quality Control (IP Section 03.02) (1 Sample)

The inspectors evaluated the effectiveness of maintenance and quality control activities to ensure the following structures, systems, and components remains capable of performing its intended function:

- (1) Replacement of service water 'Y' strainer in-service water pipe to the 'A' motor driven auxiliary feedwater pump oil cooler on September 24, 2021

71111.13 - Maintenance Risk Assessments and Emergent Work Control

Risk Assessment and Management Sample (IP Section 03.01) (2 Samples)

The inspectors evaluated the accuracy and completeness of risk assessments for the following planned and emergent work activities to ensure configuration changes and appropriate work controls were addressed:

- (1) Evaluation of plant risk (action green) during preventative maintenance of service air compressor maintenance, including oil change, on July 13, 2021
- (2) Evaluation of plant risk (action green) during preventative maintenance of turbine driven auxiliary feedwater pump and motor operated valves on September 28, 2021

71111.15 - Operability Determinations and Functionality Assessments

Operability Determination or Functionality Assessment (IP Section 03.01) (9 Samples)

The inspectors evaluated the licensee's justifications and actions associated with the following operability determinations and functionality assessments:

- (1) ASME code case application to spent fuel pool heat exchanger service water outlet piping defects developed during weld overlay on July 14, 2021
- (2) Service water loop header operability and inter system effect following pressure fluctuation due to loss of running service water pump prior to manual start of standby pump on July 21, 2021
- (3) Steam generator blow down air operated valve 5737 degraded close stroke time and evaluation of in-service testing and containment isolation testing requirements on August 9, 2021
- (4) Service water motor bearing oil DTE-24 and DTE-26 compatibility on August 11, 2021

- (5) 'B' control room emergency air treatment system heating and cooling system circuit 2 lockout due to degraded refrigerant pressure on August 24, 2021
- (6) Functional assessment of control room ammonia gas monitors and impact of calibration issues on the control room emergency air treatment system toxic gas set points on September 1, 2021
- (7) Failure analysis and past operability of the 'A' service water pump motor June 2, 2021 failure on September 9, 2021
- (8) 'A' emergency diesel generator voltage rheostat fluctuation during monthly emergency diesel generator testing on September 13, 2021

71111.18 - Plant Modifications

Temporary Modifications and/or Permanent Modifications (IP Section 03.01 and/or 03.02) (4 Samples)

The inspectors evaluated the following temporary or permanent modifications:

- (1) ECP-16-000497, Replacement of service water piping downstream of component cooling water heat exchangers and spent fuel pool heat exchanger on August 5, 2021
- (2) ECP-21-00235, Weld overlay downstream of valve 8689 on August 19, 2021
- (3) ECP-20-000495, Modify control room toxic gas monitors and revise control room emergency air treatment system toxic gas set points on August 26, 2021
- (4) ECP-21-000049, Eliminate circulating water pump flood trip in screenhouse and ECP-21-000050, Revise flood switch strip circuit logic to eliminate single point vulnerability of direct current fuses on September 1, 2021

71111.19 - Post-Maintenance Testing

Post-Maintenance Test Sample (IP Section 03.01) (5 Samples)

The inspectors evaluated the following post-maintenance test activities to verify system operability and functionality:

- (1) Operational testing of the 'A' service water pump following unplanned replacement of 'A' service water pump motor on July 2, 2021
- (2) Operational testing of the instrument air and service air cross connect following planned maintenance of service air compressor on July 14, 2021
- (3) Operational testing of the 'A' emergency diesel generator following planned replacement of 'A' emergency diesel generator Kiene valve on September 16, 2021
- (4) Operational testing of the 'A' emergency diesel generator following unplanned replacement of rheostat voltage control on September 16, 2021
- (5) Operational testing of the turbine driven auxiliary feedwater pump following planned maintenance on September 28, 2021

71111.20 - Refueling and Other Outage Activities

Refueling/Other Outage Sample (IP Section 03.01) (1 Partial)

- (1) (Partial)
The inspectors observed refueling outage (G1R43) preparation activities on August 3, 2021 and September 22, 2021

71111.22 - Surveillance Testing

The inspectors evaluated the following surveillance tests:

Surveillance Tests (other) (IP Section 03.01) (3 Samples)

- (1) STP-O-16QA, "Auxiliary Feedwater Pump 'A' - Quarterly" on July 21, 2021
- (2) STP-O-R-2.3A, "Diesel Generator 'A' Trip Testing" on September 16, 2021
- (3) STP-O-R-19, "Diesel Generator 'A' Auto Start Undervoltage Logic Test" on September 17, 2021

In-service Testing (IP Section 03.01) (1 Sample)

- (1) STP-O-2.2QA, "Residual Heat Removal Pump 'A' In-service Test" on September 7, 2021

RADIATION SAFETY

71124.06 - Radioactive Gaseous and Liquid Effluent Treatment

Walkdowns and Observations (IP Section 03.01) (4 Samples)

The inspectors evaluated the following radioactive effluent systems during walkdowns:

- (1) Plant ventilation monitoring system
- (2) Containment purge monitoring system
- (3) Liquid effluent discharge system
- (4) Observed sampling of ground water monitoring well number 3

Sampling and Analysis (IP Section 03.02) (4 Samples)

- (1) 'A' waste discharge monitoring tank sample for Discharge Permit L-20121047
- (2) A compensatory gaseous grab sample of the plant vent while radiation monitor R 14A was out-of-service, Permit G-2020013
- (3) A composite gaseous sample for a containment mini-purge, Permit G-20210014
- (4) Continuous plant vent sample for January 2019, Permit G-2019002

Dose Calculations (IP Section 03.03) (2 Samples)

The inspectors evaluated the following dose calculations:

- (1) Liquid batch release from monitoring tank 'B' and calculations for Permit L-2020007
- (2) Gaseous release from the plant vent and calculations for Permit G-2019011

Abnormal Discharges (IP Section 03.04) (2 Samples)

The inspectors evaluated the following abnormal discharges:

- (1) Gaseous discharge from the waste gas compressor room via the plant vent, July 2, 2019

- (2) Gaseous discharge from the 'D' gas decay tank via the plant vent, September 17, 2019

OTHER ACTIVITIES – BASELINE

71151 - Performance Indicator Verification

The inspectors verified licensee performance indicators submittals listed below:

MS06: Emergency AC Power Systems (IP Section 02.05) (1 Sample)

- (1) Submitted data from July 1, 2020 through June 30, 2021

MS07: High Pressure Injection Systems (IP Section 02.06) (1 Sample)

- (1) Submitted data from July 1, 2020 through June 30, 2021

MS08: Heat Removal Systems (IP Section 02.07) (1 Sample)

- (1) Submitted data from July 1, 2020 through June 30, 2021

MS09: Residual Heat Removal Systems (IP Section 02.08) (1 Sample)

- (1) Submitted data from July 1, 2020 through June 30, 2021

MS10: Cooling Water Support Systems (IP Section 02.09) (1 Sample)

- (1) Submitted data from July 1, 2020 through June 30, 2021

71152 - Problem Identification and Resolution

Annual Follow-up of Selected Issues (IP Section 02.03) (2 Samples)

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

- (1) 'A' service water pump motor failure (AR 04427202)
- (2) NRC DBAI-POV URI 05000244/2020013-01, Supplemental position indication verification and missed supplemental position indication testing (ARs 04405680, 04422716)

INSPECTION RESULTS

Failure to Submit a Licensee Event Report for a Condition Prohibited by Technical Specifications			
Cornerstone	Severity	Cross-Cutting Aspect	Report Section
Not Applicable	Severity Level IV NCV 05000244/2021003-01 Open/Closed	Not Applicable	71111.15

The inspectors identified a Severity Level (SL) IV non-cited violation (NCV) of Title 10 of the *Code of Federal Regulations* (10 CFR) 50.73(a)(2)(i)(B) when Exelon did not submit a licensee event report (LER) within 60 days of discovery, a condition which was prohibited by the plant's technical specifications (TS). Specifically, Exelon failed to notify the NRC when the 'A' service water (SW) pump was inoperable for a duration that exceeded its TS completion time.

Description: Ginna utilizes a SW system with four pumps to provide cooling to the component cooling water system heat exchangers, emergency diesel generator heat exchangers and other safety systems, structures, or components during normal and emergency conditions. On May 17-18, 2021, Exelon performed maintenance on the 'A' SW pump, which included replacing the motor. The 'A' SW pump was returned to service following post-maintenance testing on May 19, 2021. On June 2, 2021, the 'A' SW pump motor failed during normal operation and was declared inoperable. After 11 hours of run time, the 'A' SW pump motor circuit breaker tripped on instantaneous overcurrent and Exelon observed evidence of significant overheating of the motor. Exelon subsequently replaced the 'A' SW pump motor and declared it operable on June 5, 2021. Exelon performed a corrective action program evaluation to determine the cause of the pump motor failure. The corrective action program evaluation determined that the most likely cause of the motor failure was a defect in its magnet wire insulation.

TS 3.7.8, 'Service Water (SW) System,' Condition A states that with one SW pump inoperable, the SW pump shall be restored to operable status within 14 days. Condition C states that if the Completion Time of Condition A cannot be met, then the unit shall be in Mode 3 within 6 hours and Mode 5 within 36 hours. The inspectors determined the pump was unable to perform its safety function and inoperable for a period of 19 days from May 17 through June 5, 2021. NUREG-1022, Revision 3, "Event Report Guidelines 10 CFR 50.72 and 50.73," states, in part, "An LER is required if a condition existed for a time longer than permitted by the TS (i.e., greater than the total allowed restoration and shutdown outage time) even if the condition was not discovered until after the allowable time had elapsed and the condition was rectified immediately upon discovery. (For the purpose of this discussion, it is assumed that there was firm evidence that a condition prohibited by TS existed before discovery, for a time longer than permitted by TS.)" Exelon did not yet have knowledge of the 'A' SW pump motor insulation defect at the time of the failure of the 'A' SW pump on June 2, 2021. However, upon discovery and understanding of the 'A' SW pump motor failure mechanism, Exelon did not review that condition's impact on past operability and recognize the requirement to submit a LER.

Corrective Actions: Exelon's corrective actions included replacement of the 'A' SW pump motor and a planned action to submit a licensee event report for this issue.

Corrective Action References: Issue reports 04427202 and 04450905

Performance Assessment: The inspectors determined this violation was associated with a minor performance deficiency.

Enforcement: The ROP's significance determination process does not specifically consider the regulatory process impact in its assessment of licensee performance. Therefore, it is necessary to address this violation which impedes the NRC's ability to regulate using traditional enforcement to adequately deter non-compliance. Specifically, Exelon failed to notify the NRC that the 'A' SW pump was inoperable for a duration that exceeded the TS completion time. Exelon's failure to provide a licensee event report constitutes a traditional enforcement violation because it impacts the NRC's ability to carry out its regulatory function.

Severity: The inspectors determined the failure to report, within 60 days of discovery, that a condition prohibited by the plant's TS existed, was a violation of 10 CFR 50.73(a)(2)(i)(B). In accordance with the example in Section 6.9.d.9 of the NRC Enforcement Policy, a failure to make a report required by 10 CFR 50.73 is a SL IV violation. Because the violation is a traditional enforcement violation, no cross-cutting aspect was assigned.

Violation: Title 10 CFR 50.73 (a)(1) requires, in part, that the licensee submit an LER for any event of the type described in this paragraph within 60 days after discovery of the event. Title 10 CFR 50.73 (a)(2)(i)(B) requires, in part, that the licensee shall report any operation or condition which was prohibited by the plant's technical specifications. Contrary to the above, Exelon failed to report by August 2, 2021 that the aforementioned event met the reporting requirements of 10 CFR 50.73(a)(2)(i)(B).

Enforcement Action: This violation is being treated as a non-cited violation, consistent with Section 2.3.2 of the Enforcement Policy.

URI	Procedure Adequacy to Verify Supplemental Indications when Performing In-service Test Valve Position Indication Verification URI 05000244/2020013-01	71152
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Description: Unresolved item (URI) 05000244/2020013-01, "Procedure Adequacy to Verify Supplemental Indications when Performing In-service Test Valve Position Indication Verification," was opened to determine the requirements for testing frequency for ISTC-3700 Position Verification Testing when implementing ASME OM-2012. ISTC-3700 states valves with remote position indicators shall be observed locally at least once every 2 years to verify valve operation is accurately indicated. Where practical, this local observation should be supplemented by other indications such as use of flow meters or other suitable instrumentation to verify obturator position. The observations of local and supplemental plant indications need not be concurrent. Title 10 CFR 50.55a(b)(3)(xi) requires that when implementing ASME OM-2012 ISTC-3700, licensees shall (versus "should") verify that valve operation is accurately indicated by supplementing valve position indicating lights with other indications such as flow meters or other suitable instrumentation, to provide assurance of proper obturator (valve disc) position. The inspectors requested further guidance from the NRC Office of Nuclear Reactor Regulation regarding the due date for Ginna to implement supplemental plant indication requirements to assure proper obturator position when performing ISTC-3700 Position Verification Testing after Ginna implemented the 2012 ASME Code. The URI was written to determine if regulations required that valves subject to testing under ASME code ISTC-3700 when implementing the 2012 ASME code were required to be tested within the 2 years plus grace from the last time the ISTC-3700 was performed or based on the date the 2012 edition of the code was implemented.

The inspectors reviewed the Federal Register Notice Nuclear Regulatory Commission 10 CFR Part 50 [NRC-2011-0088] RIN 3150-AI97 Incorporation by Reference of American Society of Mechanical Engineers Codes and Code Cases and responses to public comments on the regulation. The inspectors also reviewed several NRC communications that addressed the testing frequency requirement. Public meetings in December 2020 and January 2021 discussed the NRC's position and Information Notice 2021-001 restated the position. The inspectors found that the NRC stated that the testing frequency was required based on the last ISTC-3700 test and this was consistent with the NRC position discussed in the 2017 Federal Notice which approved the use of the 2012 code and associated comments in response to public comments on the rule change. The inspectors concluded that the

frequency of the ISTC-3700 is to be based on the completion of the last ISTC-3700 test and not the implementation date of ASME 2012 Code.

The inspectors also reviewed Ginna's In-service Test (IST) Program Plan 6th Ten Year Interval, submitted to the NRC on February 5, 2020, which implemented OM Code 2012 Edition. Section 3.9 Position Indication Verification (ISTC-3700) included a discussion of 10 CFR 50.55a(b)(3)(xi) impact on the implementation of ISTC-3700:

Effective on August 17, 2017 the NRC added a new condition as 10 CFR 50.55a(b)(3)(xi), "Valve Position Indication," to emphasize, when implementing OM Code (2012 Edition), Subsection ISTC-3700, "Position Verification Testing," licensees shall implement the OM Code provisions to verify that valve operation is accurately indicated (i.e., Supplemental Position Indication). This condition emphasizes the OM Code requirements for valve position indication and is not a change to those requirements and was submitted to the NRC.

As part of the closure of the URI the inspectors identified a violation of 10 CFR 50.55a(b)(3)(xi). As documented in URI 05000244/2020013-1 the NRC POV inspection team found two valves that had not been scheduled within the two year frequency. As a result of the URI, Exelon staff initiated a condition report which performed an extend of condition review of all program valves subject to the ISTC-3700 requirements. For valves that would not meet the test frequency requirement, a technical evaluation was performed to determine if other indications could be credited to validate the remote position indication. Exelon staff established supplemental indication for all but 19 Code valves. Exelon submitted a relief request which was approved by the NRC for 15 valves. The remaining four valves were determined to already be in violation of the requirement because the test interval had been exceeded and the issue was entered into the corrective action program. During the inspection two additional valves were identified by the inspectors to be in violation of the requirements because the indication credited in the technical evaluation did not provide adequate verification of valve position. This deficiency was entered into the corrective action program.

The inspectors determined that the failure to verify that valve obturator position is accurately indicated within the ASME Code frequency requirements was a violation of regulatory requirements and was within the licensee's ability to foresee and correct. However, the issue was considered to be minor consistent with IMC 0612, Appendix E, Example 1.b. This conclusion is based on the results of the testing subsequently performed to meet ISTC-3700 requirements, which determined the valve obturator position was accurately indicated.

This URI is closed.

Corrective Action Reference: Not applicable.

Observation: Annual Follow-up - Supplemental Position Indication Verification and Missed Supplemental Position Indication Testing	71152
The inspectors reviewed Exelon's corrective actions taken to meet 10 CFR 50.55a(b)(3)(xi) regulatory requirements for remote valve position testing. The inspectors reviewed actions taken following the identification by an NRC design basis inspection team that testing credited to meet ASME Code ISTC-3700 testing were not scheduled to be performed in accordance with ASME Code frequency requirements (URI 05000244/2020013-01). The inspectors noted that the NRC confirmed that the frequency requirement should be based on the	

previous ISTC-3700 Test) during NRC ROP public meetings held on December 2020 and January 2021 and also restated the requirements in Information Notice 2021-001. (See URI 05000244/2020013-01 closure discussed in the Inspection Results section of this report)

The inspectors reviewed conditions reports, technical evaluations, and relief requests to determine the extent of condition and actions taken by Exelon staff to address the failure to test the valves within the required frequency. The inspectors also reviewed NRC communications related to testing frequency requirements for ISTC-3700 when a licensee implements the 2012 addition of the ASME code. Finally, the inspectors reviewed the updated in-service testing program for the 6th test interval submitted to the NRC by Exelon which implemented the 2012 ASME Code.

The inspectors reviewed of the extent of condition evaluation performed by Exelon staff to determine if Code valves, required to meet ISTC-3700, were scheduled to be tested within the Code frequency requirements. For those valves that needed to be tested, the inspectors found Exelon staff completed a technical evaluation that identified alternate indications to validate that the remote valve position indication accurately reflected actual valve disc position. The inspectors found that this review identified alternate indications for all but 19 Code valves. Of the 19 valves Exelon staff identified 15 valves that could not be tested within the Code frequency and submitted a relief request to the NRC to extend the frequency and received relief from the Code until the Fall 2021 outage. For the remaining four valves Exelon staff determined that the valves had exceeded the Code frequency and therefore they did not meet 10 CFR 50.55a(b)(3)(xi). The issue was entered the issue into their corrective action program (AR 04422716).

The inspectors reviewed the actions taken by Exelon staff and found deficiencies in the condition report evaluation and the technical evaluation. Specifically, the inspectors review of the condition report associated with the four valves that had exceeded the Code frequency requirement found that Exelon did not provide a basis for operability for the valves and did not provide a basis for extending the test frequency to the Fall 2021 outage (AR 04447050).

During the inspection, Exelon staff completed an operability assessment of the valves. The inspectors' review of the technical evaluation, used to identify alternate indication to verify valve position, found that the indication used to conclude that the feedwater isolation remote valve position indication was accurate was not adequate to show the position of the valve for the closed position. During the inspection, Exelon staff determined that there was not an available indication (AR 04447501). The inspectors noted that the last time the ISTC-3700 was completed was October 27, 2018. As a result, the inspectors concluded that ISTC-3700 was not completed within the frequency requirements for these valves. During the Fall 2021 outage, Exelon performed ISTC-3700 testing on all 21 valves and validated that the remote position indication accurately reflected actual valve position. The inspectors determined that these tests showed that the remote position indication reflected actual valve position.

Observation: Annual Follow-up - Failure of 'A' Service Water Pump Motor	71152
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The inspectors reviewed Exelon's corrective actions regarding the failure of the 'A' service water pump caused by the motor failure on June 2, 2021. The 'A' service water pump motor was initially replaced and post-maintenance testing was subsequently conducted on May 18, 2021. On June 2, 2021, the 'A' service water pump motor tripped on overcurrent. The motor was then replaced and the 'A' service water pump was restored on June 5, 2021.

The inspectors reviewed Exelon's initial and long term corrective actions. This issue was documented in Exelon's corrective action program as AR 04427202 and corrective action program evaluation, "A' Service Water Pump Tripped with Main Control Board Alarm and Fire Alarm." The inspectors reviewed the Corrective Action Program Evaluation and assessed Exelon's determination that the likely cause of the failure of the motor was a factory defect that occurred during the re-wiring process, resulting in damage to the enamel insulation.

The inspectors independently also examined the industry standards for re-wiring the pump motor, the specifications for re-wiring the pump motor and its justification for approving the vendor's request to change the insulation enamel. Additionally, the inspector's reviewed the different types of insulation used on this type of motor, the 2006 receipt inspection of the pump motor, and 2019 receipt inspection of the refurbishment of the pump motor. The inspectors also reviewed Exelon's extent of condition program for the remaining service water pumps motors and observed the replacement of the failed pump motor.

As a result of its review, the inspectors concluded that Exelon's actions in identifying and resolving the issue was commensurate with the safety significance. The inspectors independently evaluated the deficiencies noted above for significance in accordance with the guidance in IMC 0612, Appendix B, "Issue Screening," and Appendix E, "Examples of Minor Issues." The inspectors determined that none of the conditions were deficiencies of greater than minor significance and therefore are not subject to enforcement action in accordance with the NRC's Enforcement Policy.

EXIT MEETINGS AND DEBRIEFS

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

- On September 22, 2021, the inspectors presented the problem identification and resolution remote valve position testing inspection results to Mr. Paul Swift, Site Vice President and other members of the licensee staff.
- On October 28, 2021, the inspectors presented the integrated inspection results to Mr. Paul Swift, Site Vice President and other members of the licensee staff.

DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71111.01	Miscellaneous		Site Certification Letter for Summer Readiness	June 10, 2021
	Work Orders	C93754644	Verify Proper Indication and Operation of Station 13A Yard Equipment	Revision 0
71111.05	Corrective Action Documents Resulting from Inspection	04440560	Intermediate Building E-Light not aimed directly at Valves 5472 and 5474	08/13/2021
71111.06	Corrective Action Documents Resulting from Inspection	04443751	NRC identified: "A" D/G Door (SD/32) Torn Neoprene Seal	08/31/2021
71111.12	Procedures	Procure-MISC-20091201-00003	Procurement Requirement Evaluation Form 9935	11/06/2009
		Purchase order 10149825	Strainer Y-type, 1 inch, bronze 300 pounds with 0.045 inches perforated stainless steel screen Armstrong INTL INC	04/19/2021
71111.15	Corrective Action Documents	04183314	AOV-5737 B SG Blowdown Isol Valve Stroke Time Value High	10/13/2018
		04427202	A Service Water pump tripped with MCB alarms and fire alarm	06/02/2021
		04429487	Service Water Pump Motor Lube Oil List not Consistent with Design Documents	06/15/2021
		04436634	AOV-5737 SG B BD ISOL Stroke Time Acceptable Near Limit	07/23/2021
	Corrective Action Documents Resulting from Inspection	04445050	NRC Identified: Chair found laying on top of hose line	12/16/2021
	Engineering Changes	ECP 2008-0006	Determine equivalency of DTE-26 for use in-service water motor bearings	Revision 0
71111.18	Engineering Changes	ECP-16-000497-001-F-02-07	Resolve Erosion Degradation Downstream of valves 4619, 4620, and 8689	Revision 1

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
	Work Orders	ECP-20-000495	Revise Ammonia Channel Range and Setpoint	Revision 000
		C93605831	Install Flanged Segments Downstream of Valve 4619 in accordance with ECP-16-000497	05/11/2021
		C93605834	Install Flanged Segments Downstream of Valve 4620 in accordance with ECP-16-000497	05/05/2021
71111.19	Procedures	STP-O-12.1	Emergency Diesel Generator A	Revision 038
		STP-O-2.7.1A	A Service Water Pump Test	06/05/2021
		STP-O-2.7.1A	A Service Water Pump Test	Revision 039
	Work Orders	C93754531	Service Air Compressor -48 Month Preventative Maintenance Inspection	06/11/2020
		C93766829	Perform Service Water Pump A - Motor Swap out and Inspection	06/03/2021
		C93766829	Motor for Service Water Pump A	06/03/2021
		C93774664	Replace Kiene valve at Cylinder 7L and Adjust all 16 Kiene Valves for EDG 'A'	09/15/2021
C93802560	Emergency Diesel Generator Auto voltage control Rheostat	9/16/2021		
71111.20	Work Orders	C93747143	Receive New Nuclear Fuel per Procedure RF-4.1	Revision 0
71111.22	Corrective Action Documents Resulting from Inspection	04436246	Damaged Insulation upstream of 4304 ('A" MDAFW Recirculation Valve)	07/21/2021
		04445049	Pipe hanger upstream of V-873C not connected to supports	09/07/2021
	Procedures	STP-O-16QA	Auxiliary Feedwater Pump A-Quarterly	Revision 027
		STP-O-R-19	Diesel Generator A - Auto - Start Under voltage logic test	Revision 004
		STP-O-R-2.3A	Diesel Generator A Trip Testing	Revision 008
71152	Corrective Action Documents	AR 04416652	NEI implementation timing of 10CFR 50.55a(b)(3)(xi)	4/15/2021
		IR 04405680	NRC DBAI POV URI supplemental position indication verification	2/17/2021
		IR 04422716	Missed supplemental position indication (SPI) testing	05/10/2021
	Corrective Action Documents Resulting from Inspection	04447050	IR 04422716 was processed as a programmatic issue (NCAP)	09/17/2021
		04447501	Missed IST supplemental Position Indicator Test for valves AOV-3994 and AOV-3995	09/20/2021
		04448133	NRC PI&R debriefed a preliminary minor NCV for Supplemental Position Indicator	09/23/2021

Inspection Procedure	Type	Designation	Description or Title	Revision or Date	
		IR 04447050	IR 04422716 was processed as programmatic issue NCAP	09/17/2021	
		IR 04447501	Missed IST SPI test for valves AOV 3994 and AOV 3395	09/20/2021	
	Engineering Evaluations	ESR-21-0138	NRC DBAI-POV URI - Supplemental Position Indication Verification	Rev. 0	
	Miscellaneous			NRC Public Meeting Slides - 10 CFR 50.55a Rulemaking - Incorporation by Reference of American Society of Mechanical Engineers Codes and Code Cases	03/02/2016
				Verbal Authorization By The NRC Office of Nuclear Reactor Regulation For 10 CFR 50.55a Alternative Request Position Verification Testing Extension -Exelon Generation R. E. Ginna Nuclear Power Plant	04/26/21
		ML16130A531		2017 Final Rule (10 CFR 50.55a) American Society of Mechanical Engineers Codes and Code Cases Analysis of Public Comments	
		ML20036C593		RE Ginna Nuclear Power Plant, Unit 1 In-service Testing (IST) Program Plan - Sixth 10-Year Interval	Rev. 0
		ML21102A260		RE Ginna Nuclear Power Plant - One-Time Interval Extension for Supplemental Position Indication Testing	04/12/2021