UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
2100 RENAISSANCE BLVD., SUITE 100
KING OF PRUSSIA, PA 19406-2713

July 27, 2015

EA-15-025

Mr. Joseph E. Pacher
Site Vice President
R.E. Ginna Nuclear Power Plant, LLC
Exelon Generation Company, LLC
1503 Lake Road
Ontario, NY 14519

SUBJECT: R.E. GINNA NUCLEAR POWER PLANT, LLC - INTEGRATED INSPECTION REPORT 05000244/2015002 AND EXERCISE OF ENFORCEMENT DISCRETION

Dear Mr. Pacher:

On June 30, 2015, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your R.E. Ginna Nuclear Power Plant, LLC (Ginna). The enclosed inspection report documents the inspection results, which were discussed on July 16, 2015, with Mr. William Carsky, Plant Manager, and other members of your staff.

NRC inspectors examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

This report documents three violations of NRC requirements, all of which were of very low safety significance (Green). However, because of the very low safety significance, and because they are entered into your correction action program, the NRC is treating these findings as non-cited violations (NCVs), consistent with Section 2.3.2.a of the NRC Enforcement Policy.

If you contest the NCVs in this 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, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Resident Inspectors at Ginna. In addition, if you disagree with the cross-cutting aspect assigned to any finding, 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 Regional Administrator, Region I, and the NRC Resident Inspectors at Ginna.

The inspectors also reviewed Unresolved Item 05000244/2014004-02, which was initiated to determine whether Exelon Generation Company, LLC's (Exelon's) protective action recommendation (PAR) strategy met NRC requirements. Specifically, although Ginna had designated emergency response planning areas (ERPAs) for the land area within the 10-mile plume exposure pathway emergency planning zone (EPZ), it had not designated ERPAs for the portion of Lake Ontario that falls within this radius. Consequently, Exelon would not have provided PARs for Lake Ontario to the offsite response organizations in a potential emergency event (note that Wayne County's and Monroe County's Emergency Plans include actions to evacuate Lake Ontario in the vicinity of Ginna during an emergency at an Alert level).

Following additional review of this concern, NRC staff concluded that the issue constitutes a violation of NRC requirements, in that, contrary to Title 10 of the *Code of Federal Regulations* (10 CFR) 50.47(b)(10), a range of protective actions had not been developed for the entire plume exposure pathway EPZ for emergency workers and the public. NRC staff analyzed the risk significance of the issue in accordance with Inspection Manual Chapter 0609, Appendix B, "Emergency Preparedness Significance Determination Process," and determined the issue was of low to moderate safety significance (White/Severity Level III). However, the NRC concluded that the cause of the violation was not reasonably within the licensee's ability to foresee and correct. The NRC's assessment considered that the NRC inspection reports from the 1980's approved the initial Emergency Plan for Ginna and did not identify the issue, causing the licensee to reasonably conclude that they were in compliance. Therefore, no performance deficiency associated with the violation was identified.

As discussed in Section 2.2.4.d of the Enforcement Policy, a violation involving no performance deficiency is considered an exception to using only the operating reactor assessment program. Based on these facts, I have been authorized, after consultation with the Director, Office of Enforcement, and the Regional Administrator, to exercise discretion in accordance with Section 3.5 of the Enforcement Policy and refrain from issuing enforcement for this violation.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response (if any) will be available electronically for public inspection in the NRC's Public Document Room or from the Publicly Available Records component of the NRC's

Agencywide Documents Access and Management System (ADAMS). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

Sincerely,

/RA/

Ho K. Nieh
Director
Division of Reactor Projects

Docket No. 50-244
License No. DPR-18

Enclosure:
Inspection Report No. 05000244/2015002
w/Attachment: Supplementary Information

cc w/encl: Distribution via ListServ

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U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket No.	50-244
License No.	DPR-18
Report No.	05000244/2015002
Licensee:	Exelon Generation Company, LLC
Facility:	R.E. Ginna Nuclear Power Plant, LLC
Location:	Ontario, New York
Dates:	April 1, 2015, through June 30, 2015
Inspectors:	N. Perry, Senior Resident Inspector D. Dodson, Resident Inspector E. Burket, Emergency Preparedness Inspector S. Horvitz, Reactor Engineer D. Render, Project Manager A. Siwy, Project Engineer
Approved by:	Daniel L. Schroeder, Chief Reactor Projects Branch 1 Division of Reactor Projects

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SUMMARY

Inspection Report 05000244/2015002; 04/01/2015 – 06/30/2015; R.E. Ginna Nuclear Power Plant, LLC (Ginna); Fire Protection, Maintenance Effectiveness, and Plant Modifications.

This report covered a 3-month period of inspection by resident inspectors and a regional inspector. The inspectors identified two non-cited violations (NCVs) and one self-revealing NCV of very low safety significance (Green). A finding's significance is indicated by a color (i.e., greater than Green, or Green, White, Yellow, Red) and determined using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process," dated April 29, 2015. Cross-cutting aspects are determined using IMC 0310, "Aspects Within the Cross-Cutting Areas," issued December 4, 2014. All violations of U.S. Nuclear Regulatory Commission (NRC) requirements are dispositioned in accordance with the NRC's Enforcement Policy, dated February 4, 2015. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 5.

Cornerstone: Mitigating Systems

- Green. The inspectors identified a Green NCV of Ginna Operating License Condition 2.C.(3), "Fire Protection," because Exelon Generation Company, LLC (Exelon) failed to perform 1-hour compensatory fire tours as required by the Technical Requirements Manual (TRM). Specifically, while a fire barrier component was physically removed, the TRM required a 1-hour fire watch inspection of the affected fire zone; Exelon was performing a 6-hour fire watch. Corrective actions included performing 1-hour fire tours, reinstalling the fire barrier when the work requiring its removal was completed so that fire tours were no longer required, and entering the issue into the corrective action program (CAP).

  This finding is more than minor because it adversely affected the protection against external factors (i.e., fire) attribute of the Mitigating Systems cornerstone and affected the cornerstone objective of ensuring the availability and reliability of systems that respond to initiating events to prevent undesirable consequences. In accordance with IMC 0609, Appendix F, "Fire Protection Significance Determination Process," issued on September 20, 2013, the inspectors determined that the finding is of very low significance (Green), because for localized cable protection (task 1.4.4), an automatic suppression system protected the area where the cable protection was affected by the fire finding. Additionally, the finding has a cross-cutting aspect in the area of Human Performance, Resources, because Exelon did not ensure that procedures were adequate to support nuclear safety. [H.1] (Section 1R05)

- Green. A self-revealing Green NCV of Technical Specification (TS) 5.4.1, "Procedures," was identified for inadequate implementation of procedure M-71.4, "Removal and/or Installation of Modules within Defeated or Out-of-Service Instrument Loops." Specifically, while performing maintenance procedures for the sodium hydroxide (NaOH) flow loop power supply replacement, Exelon inadvertently caused a short in electrical circuitry that resulted in an automatic switch of instrument bus 'C' from inverter 'B' to its backup power supply; this caused an entry into a 72-hour TS action statement and actuation of the control room emergency air treatment system (CREATS). Corrective actions included entering this issue into the CAP.

This finding is more than minor because it is associated with the Mitigating Systems cornerstone and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. In accordance with IMC 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," Exhibit 2, the inspectors determined that the finding is of very low significance (Green), because the finding was not a deficiency affecting the design or qualification of a mitigating structure, system, and component (SSC); did not represent a loss of system and/or function; and did not represent an actual loss of function of at least a single train. Additionally, the finding has a cross-cutting aspect in the area of Human Performance, Avoid Complacency, because Exelon did not recognize and plan for the possibility of mistakes, latent issues, and inherent risk, even while expecting successful outcomes. [H.12] (Section 1R12)

- Green. The inspectors identified a Green NCV of Title 10 of the *Code of Federal Regulations* (10 CFR) 50, Appendix B, Criterion III, "Design Control," because Exelon did not provide for verifying or checking the adequacy of design, such as by the performance of design reviews and calculations to ensure that masonry block wall failures in the intermediate building would not challenge preferred auxiliary feedwater (AFW) piping operability. Corrective actions included installation of a temporary modification which corrected the condition, and entering this issue into the CAP. Exelon is evaluating options for a permanent modification to correct the issue.

  This finding is more than minor because it is associated with the design control attribute of the Mitigating Systems cornerstone and affects the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, if non-safety-related block wall 8-973-8I failed following a design basis seismic event, portions of the turbine-driven and 'B' motor-driven AFW systems could be impacted by falling blocks. In accordance with IMC 0609.04, "Initial Characterization of Findings," and Exhibits 2 and 4 of IMC 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," the performance deficiency was a deficiency affecting external event mitigation systems (seismic/fire/flood/severe weather protection degraded). The performance deficiency did not involve the degradation of equipment or function specifically designed to mitigate a seismic, flooding, or severe weather initiating event (e.g., seismic snubbers, flooding barriers, tornado doors) only a reasonable doubt regarding the operability of the turbine-driven AFW system. Therefore, the inspectors determined that this finding is of very low safety significance (Green). Additionally, the finding has a cross-cutting aspect in the area of Problem Identification and Resolution, Identification, because Ginna did not implement a CAP with a low threshold for identifying issues and individuals did not identify issues completely, accurately, and in a timely manner in accordance with the program. [P.1] (Section 1R18)

REPORT DETAILS

Summary of Plant Status

Ginna began the inspection period operating at 100 percent power and remained at or near 100 percent power for the remainder of the inspection period.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

1R01 Adverse Weather Protection (71111.01 – 2 samples)

.1 Readiness for Seasonal Extreme Weather Conditions

a. Inspection Scope

The inspectors performed a review of Exelon's readiness for the onset of seasonal high temperatures. The review focused on the turbine building, relay room, battery rooms, emergency diesel generator (EDG) rooms, main feed pump room, intermediate building, auxiliary building, screen house, standby AFW pump room, transformer yard, and the service building. The inspectors reviewed the Updated Final Safety Analysis Report (UFSAR), TSs, control room logs, and the CAP to determine what temperatures or other seasonal weather could challenge these systems and to ensure Exelon personnel had adequately prepared for these challenges. The inspectors reviewed station procedures, including Exelon's seasonal weather preparation procedure and applicable operating procedures. The inspectors performed walkdowns of the selected systems to ensure station personnel identified issues that could challenge the operability of the systems during hot weather conditions. Documents reviewed for each section of this inspection report are listed in the attachment.

b. Findings

No findings were identified.

.2 Summer Readiness of Offsite and Alternate Alternating Current (AC) Power Systems

a. Inspection Scope

On May 7, 2015, the inspectors performed a review of plant features and procedures for the operation and continued availability of the offsite and alternate AC power systems to evaluate readiness of the systems prior to seasonal high grid loading. The inspectors reviewed Exelon's procedures affecting these areas and the communications protocols between the transmission system operator and Exelon. This reviewed focused on changes to the established program and material condition of the offsite and alternate AC power equipment. The inspectors assessed whether Exelon established and implemented appropriate procedures and protocols to monitor and maintain availability and reliability of both the offsite AC power system and the onsite alternate AC power system. The inspectors evaluated the material condition of the associated equipment by

observing auxiliary operators performing weekly 13A substation checks and by walking down portions of the offsite and AC power systems including the 115-kilovolt switchyard and the transformer yard.

b. Findings

No findings were identified.

1R04 Equipment Alignment

Partial System Walkdowns (71111.04Q – 3 samples)

a. Inspection Scope

The inspectors performed partial walkdowns of the following systems:

- 'A' containment spray following restoration from maintenance on April 16, 2015
- 'B' motor-driven AFW while the 'A' pump was out of service for maintenance on April 20, 2015
- 'A' safety injection following planned and unplanned maintenance on June 15, 2015

The inspectors selected these systems based on their risk-significance relative to the reactor safety cornerstones at the time they were inspected. The inspectors reviewed applicable operating procedures, system diagrams, the UFSAR, TSs, an action request (AR), and the impact of ongoing work activities on redundant trains of equipment in order to identify conditions that could have impacted system performance of their intended safety functions. The inspectors also performed field walkdowns of accessible portions of the systems to verify system components and support equipment were aligned correctly and were operable. The inspectors examined the material condition of the components and observed operating parameters of equipment to verify that there were no deficiencies. The inspectors also reviewed whether Exelon staff had properly identified equipment issues and entered them into the CAP for resolution with the appropriate significance characterization.

b. Findings

No findings were identified.

1R05 Fire Protection

Resident Inspector Quarterly Walkdowns (71111.05Q – 5 samples)

a. Inspection Scope

The inspectors conducted tours of the areas listed below to assess the material condition and operational status of fire protection features. The inspectors verified that Exelon controlled combustible materials and ignition sources in accordance with administrative procedures. The inspectors verified that fire protection and suppression equipment was available for use as specified in the area pre-fire plan, and passive fire barriers were maintained in good material condition. The inspectors also verified that station personnel implemented compensatory measures for out of service, degraded, or

inoperable fire protection equipment, as applicable, in accordance with appropriate requirements.

- Transformer yard on May 7, 2015
- Diesel generator room 'A' on May 7, 2015
- Intermediate building sub-basement on May 22, 2015
- Auxiliary building intermediate floor mezzanine on June 9, 2015
- Intermediate building clean side basement on June 24, 2015

b. Findings

Introduction. The inspectors identified a Green NCV of Ginna Operating License Condition 2.C.(3), "Fire Protection," because Exelon failed to perform 1-hour compensatory fire tours as required by the TRM. Specifically, while a fire barrier component was physically removed, the TRM required a 1-hour fire watch inspection of the affected fire zone; Exelon was performing a 6-hour fire watch.

Description. In April 2005, based on industry information, Ginna declared certain fire barriers inoperable. In order to meet train separation requirements of 10 CFR 50, Appendix R, "Fire Protection Program for Nuclear Power Facilities Operating Prior to January 1, 1979," Ginna had installed Hemyc wrap fire barriers around numerous components in the plant. Prior to 2005, these barriers were rated as 1-hour fire barriers. However, Hemyc wrap was later found to not be able to meet its 1-hour qualification time. In order to meet the train separation requirements, Ginna put in place compensatory measures of 1-hour fire watches. In June 2006, Ginna completed an evaluation of compensatory measures for the degraded barriers installed in the plant and changed the compensatory requirements from a 1-hour fire watch to a stronger defense-in-depth compensatory measure. This action in plant areas with Hemyc included: stricter controls on all hot work, tracking and permitting of any transient combustibles, changing procedures to identify specific locations of Hemyc, and inspections of the areas with Hemyc three times per week. Additionally, the Hemyc barriers were properly maintained, and any specific breaches were tracked as if the barrier were fully qualified.

On June 2, 2015, Ginna personnel physically removed a Hemyc wrap fire barrier (HWAB04) protecting post-fire safe shutdown power cables in the auxiliary building in order to allow for wall penetration sealing to occur. The fire barrier was planned to be reinstalled over 2 weeks later. As compensatory action for the removed fire barrier, a 6-hour fire watch was established in accordance with A-52.12, "Nonfunctional Equipment Important to Safety," Revision 07500. Procedure A-52.12 required that any deficiencies that could challenge the Hemyc barriers would be corrected immediately or a 6-hour fire watch would be established. On June 9, due to questioning by the inspectors, operators found that the TRM required a 1-hour fire tour for the removed fire barrier; 1-hour fire tours were commenced at that time. On June 12, Ginna management removed all Hemyc wrap fire barrier references from the TRM, and reverted back to the 6-hour fire watch for the removed barrier. After additional questioning by the inspectors on June 16, the 1-hour fire tour was once again reinstated. Additionally, the 6-hour requirement in A-52.12, and a few other procedures, was changed to a 1-hour requirement. On June 20, the Hemyc barrier was reinstalled following completion of the penetration seal work, and the fire tours were stopped.

The inspectors reviewed Exelon's actions in response to the removed Hemyc fire barrier, including the control of hot work in the area, the control of transient combustibles in the area, and the compensatory actions taken. Additionally, the inspectors reviewed the basis for removing the Hemyc fire barriers from the TRM and establishing a 6-hour fire watch.

Analysis. Exelon's failure to perform 1-hour compensatory fire tours in accordance with the TRM while a fire barrier component was removed was a performance deficiency within Exelon's ability to foresee and correct and should have been prevented. Exelon was performing 6-hour fire watches following removal of the fire barrier component instead of the required 1-hour fire tours. This finding is more than minor because it adversely affected the protection against external factors (i.e., fire) attribute of the Mitigating Systems cornerstone and affected the cornerstone objective of ensuring the availability and reliability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the post-fire safe shutdown power cables that were being protected by the Hemyc wrap were no longer protected from a fire in the area, and the compensatory action taken was not in accordance with the TRM.

In accordance with IMC 0609, Appendix F, "Fire Protection Significance Determination Process," issued on September 20, 2013, the inspectors determined that the finding is of very low significance (Green), because for localized cable protection (Task 1.4.4), an automatic suppression system protected the area where the cable protection was affected by the fire finding.

In accordance with IMC 0310, the finding has a cross-cutting aspect in the area of Human Performance, Resources, because Exelon did not ensure that procedures were adequate to support nuclear safety. Specifically, Exelon procedures did not provide adequate guidance consistent with the TRM to ensure that 1-hour compensatory fire tours were established when a fire barrier component was removed [H.1].

Enforcement. Ginna Operating License Condition 2.C.(3), "Fire Protection Program," In part, requires Exelon to implement and maintain in effect all fire protection features described in licensee submittals referenced in and as approved or modified by the NRC's Safety Evaluation Report, dated February 1979, and subsequent supplements. Ginna Station Fire Protection Program, Revision 11.0, specifies the TRM as listing the operability and surveillance requirements for fire protection systems. Technical Requirement 3.7.5, "Fire Barrier Penetrations," Revision 57, Table TR 3.7.5-1, "Fire Barrier Penetration Seals," lists Hemyc wrap fire barrier HWAB04 as a fire barrier component requiring a 1-hour fire watch when the component is inoperable. Contrary to the above, on June 2, 2015, Exelon failed to implement all fire protection features described in licensee submittals referenced in and as approved or modified by the NRC's Safety Evaluation Report, dated February 1979, and subsequent supplements. Specifically, Hemyc wrap fire barrier HWAB04 that was protecting post-fire safe shutdown power cables in the auxiliary building was physically removed, rendering the component inoperable, and a 1-hour fire watch was not established. As a corrective action, on June 16, the 1-hour fire tour was commenced. Additionally, the 6-hour requirement in procedures was changed to a 1-hour requirement. On June 20, the Hemyc barrier was reinstalled following the penetration seal work. Because this violation was of very low safety significance (Green) and Exelon entered this issue into their CAP as AR 02515495, this violation is being treated as an NCV, consistent with Section 2.3.2 of the Enforcement Policy. **(NCV 05000244/2015002-01, Failure to Perform 1-Hour Fire Tours as Required by the Technical Requirements Manual)**

1R06 Flood Protection Measures (71111.06)

Internal Flooding Review (2 – samples)

a. Inspection Scope

The inspectors reviewed the UFSAR and the site flooding analysis to assess susceptibilities involving internal flooding. The inspectors also reviewed the CAP to determine if Exelon identified and corrected flooding problems and whether operator actions for coping with flooding were adequate. The inspectors also focused on the (1) screen house and the (2) turbine building to verify the adequacy of equipment seals located below the flood line, floor and water penetration seals, watertight door seals, common drain lines and sumps, sump pumps, level alarms, control circuits, and temporary or removable flood barriers.

b. Findings

No findings were identified.

1R11 Licensed Operator Requalification Program and Licensed Operator Performance (71111.11Q – 2 samples)

.1 Quarterly Review of Licensed Operator Requalification Testing and Training

a. Inspection Scope

The inspectors observed licensed operator simulator training on May 6, 2015, which included a main steam line break, a condensate trim valve failure, and a loss of direct current power to bus 16. The inspectors evaluated operator performance during the simulated event and verified completion of risk-significant operator actions, including the use of abnormal and emergency operating procedures. The inspectors assessed the clarity and effectiveness of communications, implementation of actions in response to alarms and degrading plant conditions, and the oversight and direction provided by the control room supervisor. The inspectors verified the accuracy and timeliness of the emergency classification made by the shift manager and the TS action statements entered. Additionally, the inspectors assessed the ability of the crew and training staff to identify and document crew performance problems.

b. Findings

No findings were identified.

.2 Quarterly Review of Licensed Operator Performance in the Main Control Room

a. Inspection Scope

The inspectors observed and reviewed operator performance during a time of elevated activity in the control room, which included a briefing in the area, response to annunciator alarms, the completion of daily surveillances, the performance of an evacuation drill, and ongoing maintenance troubleshooting activities on June 10, 2015. The inspectors observed pre-shift briefings and reactivity control briefings to verify that

the briefings met the criteria specified in procedure HU-AA-1211, "Pre-Job Briefings," Revision 010. Additionally, the inspectors observed test performance to verify that procedure use, crew communications, and coordination of activities between work groups similarly met established expectations and standards.

b. Findings

No findings were identified.

1R12 Maintenance Effectiveness (71111.12Q – 1 sample)

a. Inspection Scope

The inspectors reviewed the NaOH flow loop power supply replacement on April 10, 2015, to assess the effectiveness of maintenance activities on SSC performance and reliability. The inspectors reviewed system health reports, CAP documents, and a maintenance work order (WO) to ensure that Exelon was identifying and properly evaluating performance problems within the scope of the maintenance rule. For the sample selected, the inspectors verified that the SSC was properly scoped into the maintenance rule in accordance with 10 CFR 50.65 and verified that the (a)(2) performance criteria established by Exelon staff were reasonable. As applicable, for SSCs classified as (a)(1), the inspectors assessed the adequacy of goals and corrective actions to return these SSCs to (a)(2). Additionally, the inspectors ensured that Exelon staff was identifying and addressing common cause failures that occurred within and across maintenance rule system boundaries.

b. Findings

Introduction. A self-revealing Green NCV of TS 5.4.1, "Procedures," was identified for inadequate implementation of procedure M-71.4, "Removal and/or Installation of Modules within Defeated or Out-of-Service Instrument Loops," Revision 2500. Specifically, while performing maintenance procedures for the NaOH flow loop power supply replacement, Exelon inadvertently caused a short in electrical circuitry that resulted in an automatic switch of instrument bus 'C' from inverter 'B' to its backup power supply; this caused an entry into a 72-hour TS action statement and actuation of the CREATS.

Description. On April 10, 2015, Exelon was replacing the power supply to the NaOH flow loop, using M-71.4, in preparation for its calibration, which would use CPI-FLO-930, "Calibration of Spray Additive Flow Loop-930," Revision 00703. During the replacement of the power supply, M-71.4 instructs Exelon personnel to insulate the wires with tape. In an attempt to secure all wires, the tip of a non-insulated screwdriver was wrapped in electrical insulating tape and then used to secure the tape over a wire. The tape on the screwdriver peeled back allowing the exposed metal screwdriver to make contact with the energized terminal. Procedure M-71.4, Step 6.1.14 states, "BEFORE removing L1 wire, **ENSURE** there are no exposed metal surfaces within reach of L1 wire which could cause L1 wire to be grounded." When the tape peeled back, the metal tip of the screwdriver made contact with an energized terminal. As a result, the power lead was shorted out and caused an electrical disturbance to instrument bus 'C'. When there is an electrical disturbance to instrument bus 'C', there is an automatic switch over from inverter 'B' to its backup power supply. During the switch to the backup power supply,

the voltage drop caused the actuation of the CREATS. As a result of the loss of inverter 'B' as the normal power supply, Exelon had to enter into a 72-hour TS action statement.

The work was being performed in accordance with WO C20805095 and a pre-briefing was coordinated before the work began. During the pre-briefing, the precautions and associated risks were discussed; however, the loss of the inverter to the normal power supply still occurred. Exelon entered this issue into their CAP as AR 02483272. Exelon concluded that a non-conducting tool was not readily accessible in the technician's toolbox, but was located in the supply work room and should have been used. In the WO, a precaution against AC wire grounding was advised.

Analysis. The inspectors determined the inadequate implementation of M-71.4 was a performance deficiency within Exelon's ability to foresee and correct and should have been prevented. Specifically, Exelon did not use the proper tool for this activity, which resulted in an entry into a 72-hour TS action statement. This finding is more than minor because it is associated with the Mitigating Systems cornerstone and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. TS 3.8.7 requires inverters for instrument buses 'A' and 'C' to be operable in modes 1, 2, 3, and 4; and TS 3.8.7 states that an inverter is operable when the associated instrument bus is "powered by the inverter with output voltage within tolerances with power input to the inverter from a 125-volt direct current power source." The shorting of the electrical circuitry resulted in the inoperability of inverter 'B' because there was an automatic switch of instrument bus 'C' from inverter 'B' to its backup power supply. This resulted in Exelon entering a 72-hour TS action statement in accordance with TS 3.8.7. Additionally, this caused the automatic actuation of the CREATS.

In accordance with IMC 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," Exhibit 2, issued on June 19, 2012, the inspectors determined that the finding is of very low significance (Green), because the finding was not a deficiency affecting the design or qualification of a mitigating SSC; did not represent a loss of system and/or function; and did not represent an actual loss of function of at least a single train.

In accordance with IMC 0310, the finding has a cross-cutting aspect in the area of Human Performance, Avoid Complacency, because Exelon did not recognize and plan for the possibility of mistakes, latent issues, and inherent risk, even while expecting successful outcomes. Specifically, Exelon did not incorporate risk insights when choosing the appropriate tool to reduce the chances of an electrical short, which resulted in an inoperable inverter, 72-hour TS action statement entry, and an automatic CREATS actuation [H-12].

Enforcement. TS 5.4.1, "Procedures," requires that written procedures recommended in Appendix A of Regulatory Guide 1.33, 1978, "Quality Assurance Program Requirements (Operation)," shall be established, implemented, and maintained. Section 9.a., "Procedures for Performing Maintenance," states that maintenance that can affect the performance of safety-related equipment should be properly preplanned and performed in accordance with written procedures, documented instructions, or drawings appropriate to the circumstance. Contrary to above, on April 10, 2015, Exelon did not adequately implement procedure M-71.4, "Removal and/or Installation of Modules within Defeated or Out-of-Service Instrument Loops," Revision 2500. Specifically, an improper tool was used during the maintenance activity resulting in AC wiring becoming grounded after the

metal tip of a screwdriver made contact with an energized terminal. This resulted in the transfer of instrument bus 'C' to a backup power supply, entry into a 72-hour TS action statement, and an inadvertent automatic actuation of CREATS. Because this issue was of very low safety significance (Green), and Exelon entered this issue into the CAP as AR 02483272, the NRC is treating this as an NCV in accordance with Section 2.3.2 of the NRC Enforcement Policy. **(NCV 05000244/2015002-02, Inadequate Procedure Implementation Results in Inadvertent Entry into 72 Hour Technical Specification Action Statement)**

1R13 Maintenance Risk Assessments and Emergent Work Control (71111.13 – 5 samples)

a. Inspection Scope

The inspectors reviewed station evaluation and management of plant risk for the maintenance and emergent work activities listed below to verify that Exelon performed the appropriate risk assessments prior to removing equipment from service. The inspectors selected these activities based on potential risk significance relative to the reactor safety cornerstones. As applicable for each activity, the inspectors verified that Exelon personnel performed risk assessments as required by 10 CFR 50.65(a)(4) and that the assessments were accurate and complete. When Exelon performed emergent work, the inspectors verified that operations personnel promptly assessed and managed plant risk. The inspectors reviewed the scope of maintenance work and discussed the results of the assessment with the station's probabilistic risk analyst to verify plant conditions were consistent with the risk assessment. The inspectors also reviewed the TS requirements and inspected portions of redundant safety systems, when applicable, to verify risk analysis assumptions were valid and applicable requirements were met.

- Planned maintenance on the 'A' AFW on April 20, 2015
- Planned maintenance on the 'B' EDG, 'B' charging pump, and 'B' battery charger on April 28, 2015
- Planned maintenance calibrations of reactor protection system channel 4 on May 18, 2015
- Planned maintenance including two radiation monitor heavy lifts on May 29, 2015
- Planned maintenance on the 'A' service water (SW) pump with 'B' SW and 'D' SW pumps running on June 17, 2015

b. Findings

No findings were identified.

1R15 Operability Determinations and Functionality Assessments (71111.15 – 6 samples)

a. Inspection Scope

The inspectors reviewed operability determinations for the following degraded or non-conforming conditions:

- CREATS chlorine monitor on April 28, 2015
- Diesel fire pump battery cells with low specific gravity on May 5, 2015
- 'A' SW pump low differential pressure on June 18, 2015
- 'B' vital battery monitor loose shunt bar on June 29, 2015

- Operator workarounds (fourth quarter 2014 and first quarter 2015) on June 30, 2015
- Unsealed fire barrier penetration in intermediate building north wall on June 30, 2015

The inspectors selected these issues based on the risk significance of the associated components and systems. The inspectors evaluated the technical adequacy of the operability determinations to assess whether TS operability was properly justified and the subject component or system remained available such that no unrecognized increase in risk occurred. The inspectors compared the operability and design criteria in the appropriate sections of the TSs and UFSAR to Exelon's evaluations to determine whether the components or systems were operable. Where compensatory measures were required to maintain operability, the inspectors determined whether the measures in place would function as intended and were properly controlled by Exelon. The inspectors determined, where appropriate, compliance with bounding limitations associated with the evaluations.

b. Findings

No findings were identified.

1R18 Plant Modifications (71111.18 – 2 samples)

Temporary Modifications

a. Inspection Scope

The inspectors reviewed the temporary modifications listed below to determine whether the modifications affected the safety functions of systems that are important to safety. The inspectors reviewed 10 CFR 50.59 documentation and post-modification testing results, and conducted field walkdowns of the modifications to verify that the temporary modifications did not degrade the design bases, licensing bases, and performance capability of the affected systems.

- Engineering Change Package (ECP)-15-000266 – Temporary protection for 'B' AFW line tie-in to main feedwater.
- ECP-15-000299 – Technical evaluation of intermediate building monorail use during mode 1 for SPING lift.

b. Findings

Introduction. The inspectors identified a Green NCV of 10 CFR 50, Appendix B, Criterion III, "Design Control," because Exelon did not provide for verifying or checking the adequacy of design, such as by the performance of design reviews and calculations, to ensure that masonry block wall failures in the intermediate building would not challenge preferred AFW piping operability. Specifically, Exelon did not adequately ensure the design basis analysis and modifications protected the turbine-driven and 'B' motor-driven AFW connections to the 'B' main feedwater line, up to and including the check valves in each line, which resulted in a condition where there was a reasonable doubt regarding the operability of portions of the preferred AFW system.

Description. During a plant tour on April 24, 2015, the inspectors noted valve and piping protection features that were installed in the non-radiological controlled side of the intermediate building (main steam header level) to protect important sections of class 2 preferred AFW piping and valves from potential block wall failures. The components to be protected from block wall failures included the turbine-driven AFW discharge check valve (4004) upstream of the connection to the 'B' main feedwater piping, the discharge isolation valve (4006), the associated 3-inch turbine-driven AFW system piping downstream of the check valve, a test connection, containment isolation valve (4004A), and associated 0.75-inch piping; the 'B' motor-driven AFW system components requiring protection from potential block wall failures have a similar configuration and are located in the same area.

The plate steel protection for the preferred AFW components is installed at approximately the 298-foot 4-inch elevation, and the subject portion of the preferred AFW system is located in the intermediate building adjacent to a stairwell, main steam piping, and main feedwater piping between the 278-foot 4-inch and the 298-foot 4-inch elevations of the intermediate building. The 298-foot 4-inch elevation, which is above and adjacent to the AFW piping, has a block wall (8-973-8I) approximately 2 feet to the south of the AFW piping. The inspectors identified an approximate 16-inch gap between the 298-foot 4-inch elevation floor and the plate steel installed to protect the preferred AFW piping below.

The inspectors noted through interviews and document reviews that the subject block wall is non-safety-related, and Exelon could not provide a historical analysis indicating that the block wall would not fail during a seismic event. The inspectors determined through discussions with NRC headquarters structural and seismic subject matter experts that the failure of the block wall could potentially lead to the preferred AFW components being impacted by falling blocks that could fall through the 16-inch gap between the 298-foot 4-inch elevation floor and the plate steel protection.

The UFSAR discusses Ginna station's response to Bulletin 80-11, "Masonry Wall Design," dated May 8, 1980, and a series of analyses of walls determined to withstand all applicable loads and load combinations and other masonry walls that were qualified based on providing restraining modifications or safety-related equipment protection. Section 3.8.4.5.1, "Applicable Walls," states, "Figures 3.8-60 through 3.8-62 illustrate the location of the 37 masonry walls that are considered safety related (i.e., whose potential failure must not endanger safe shutdown capability). The presence of a safety-related system or component within one wall height of these walls is sufficient to qualify the wall as safety-related."

The UFSAR also discusses an analysis of the effects of tornado missiles on the steam lines, feedwater lines, supports, and attached piping and valves. Section 3.3.3.3.3.3, "Failure of Block Walls," states, "RG&E [Rochester Gas & Electric] has also committed to evaluate the possible damaging effects on the steam and feedwater lines, due to failure of block walls…RG&E determined that local protection for…the preferred auxiliary feedwater system check valves [was] required. Protective structures were installed to protect these components."

Protection of the subject preferred AFW system piping and valves was not adequate considering that non-safety-related block wall 8-973-8I, which was originally assumed to fail during a seismic event, is within one full wall height of the safety-related components required for safe shutdown capability. The inspectors noted that the

0.75-inch turbine-driven AFW test connection line with a wall thickness of 0.154 inches and isolation valve - both containment boundaries - were the most likely components to fail if struck by falling blocks. Analyses performed by Exelon in AR 02499877 evaluated standby AFW piping capability to withstand impacts from a collapsing block wall. This analysis utilized calculation DA-CE-14-001 to demonstrate that pipes with a wall thickness greater than or equal to 0.21 inches would be capable of resisting loads from a falling block wall. Considering that the 0.75-inch test connection line's wall thickness of 0.154 inches is 27 percent less than the previously utilized minimum acceptable wall thickness, and considering that the block wall is non-safety-related and within one full wall height of the safety-related components, there was a reasonable doubt regarding the operability of preferred AFW system components. Exelon subsequently completed a past seismic evaluation and concluded that block wall 8-973-8I would have been able to withstand a design basis seismic event while maintaining stresses below ultimate stress limits.

The inspectors also noted that an area walk-by checklist was completed and documented for the intermediate building, cold-side main-steam header (referred to previously as the 278-foot 4-inch elevation of the intermediate building non-radiological controlled side) by Ginna and its contractors in Attachment D of 12C4110.3-R-001, "Seismic Walkdown Report In Response to the 50.54(f) Information Request Regarding Fukushima Near-Term Task Force Recommendation 2.3; Seismic for the R. E. Ginna Nuclear Power Plant," Revision 0, dated November 9, 2012. The checklist asks, "Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area?" The notes for this question state, "Yes. Block walls strengthened under PCR-098-022, See drawing series 33013-2758," but neither of these documents identifies reinforcements or other enhancements to non-safety-related block wall 8-973-8I. The checklist also asks, "Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area." The notes for this question state, "Yes." The area walk-by checklist did not identify that the subject preferred AFW piping could be adversely impacted by block wall 8-973-8I.

Exelon documented the inspectors' concerns in AR 02494412. Exelon also installed a temporary modification in accordance with ECP-15-000266, "Temporary Protection for 'B' AFW Line Tie-In to Main Feedwater," Revision 0. The temporary modification was completed on May 16, 2015, which corrected the condition. Exelon is evaluating options for a permanent modification to correct the issue.

Analysis. The inspectors determined that Exelon's failure to provide for verifying or checking the adequacy of design, such as by the performance of design reviews and calculations in accordance with 10 CFR 50, Appendix B, Criterion III, "Design Control," to ensure that non-safety-related block walls would not challenge preferred AFW system operability, was a performance deficiency that was within Exelon's ability to foresee and correct and should have been prevented. This finding is more than minor because it is associated with the design control attribute of the Mitigating Systems cornerstone and affects the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, if non-safety-related block wall 8-973-8I failed following a design basis seismic event, portions of the turbine-driven and 'B' motor-driven AFW systems could be impacted by falling blocks. This condition could have impacted turbine-driven AFW availability, reliability, and capability if portions of the unprotected turbine-driven AFW piping or valves were damaged. Additionally, the finding is similar to Example 3.j. of IMC 0612, Appendix E, "Examples of Minor Issues," issued August 11, 2009, in that the

masonry block wall design basis analyses failed to consider worst case conditions including the failure of a non-safety-related block wall, which resulted in a reasonable doubt on the operability of the turbine-driven AFW system that necessitated the implementation of compensatory actions via an ECP, planned permanent modifications, and a substantial past operability determination effort.

In accordance with IMC 0609.04, "Initial Characterization of Findings," and Exhibits 2 and 4 of IMC 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," both issued June 19, 2012, the performance deficiency was a deficiency affecting external event mitigation systems (seismic/fire/flood/severe weather protection degraded). The performance deficiency did not involve the degradation of equipment or function specifically designed to mitigate a seismic, flooding, or severe weather initiating event (e.g., seismic snubbers, flooding barriers, tornado doors), only a reasonable doubt regarding the operability of the turbine-driven AFW system. Therefore, the inspectors determined that this finding is of very low safety significance (Green).

In accordance with IMC 0310, the finding has a cross-cutting aspect in the area of Problem Identification and Resolution, Identification, because Ginna did not implement a CAP with a low threshold for identifying issues and individuals did not identify issues completely, accurately, and in a timely manner in accordance with the program. Specifically, when performing seismic walkdowns of the main steam header level as documented in the "Seismic Walkdown Report In Response to the 50.54(f) Information Request Regarding Fukushima Near-Term Task Force Recommendation 2.3; Seismic for the R. E. Ginna Nuclear Power Plant," dated November 9, 2012, Exelon did not identify that preferred AFW components could be adversely impacted by a non-safety-related block wall within one full wall height of the components [P.1].

Enforcement. 10 CFR 50, Appendix B, Criterion III, "Design Control," states, in part, that measures shall be established to provide for verifying or checking the adequacy of design, such as by the performance of design reviews and calculations. Contrary to the above, prior to May 16, 2015, Exelon failed to provide for verifying or checking the adequacy of the design of protection features installed to protect preferred AFW systems. Specifically, Exelon failed to ensure the design basis analysis accounted for masonry block wall failures in the intermediate building, which resulted in the potential for turbine-driven AFW piping and valves being damaged and a reasonable doubt on the operability of the turbine-driven AFW systems. Exelon's immediate corrective actions included entering the issue into its CAP, implementing compensatory measures via ECP-15-000266, and conducting a past operability determination. Because this violation was of very low safety significance (Green), and Exelon entered this issue into its CAP as AR 02494412, this violation is being treated as an NCV consistent with Section 2.3.2 of the Enforcement Policy. **(NCV 05000244/2015002-03, Inadequate Preferred Auxiliary Feedwater Protection from Potential Block Wall Failures)**

1R19 Post-Maintenance Testing (71111.19 – 5 samples)

a. Inspection Scope

The inspectors reviewed the post-maintenance tests for the maintenance activities listed below to verify that procedures and test activities ensured system operability and functional capability. The inspectors reviewed the test procedure to verify that the

procedure adequately tested the safety functions that may have been affected by the maintenance activity, that the acceptance criteria in the procedure were consistent with the information in the applicable licensing basis and/or design basis documents, and that the procedure had been properly reviewed and approved. The inspectors also witnessed the test or reviewed test data to verify that the test results adequately demonstrated restoration of the affected safety functions.

- 'B' residual heat removal pump planned maintenance on April 2, 2015
- 'A' safety injection planned maintenance June 9, 2015
- 'A' EDG planned and emergent maintenance on June 10, 2015
- 'A' residual heat removal pump planned maintenance on June 11, 2015
- 'A' SW planned on June 17, 2015

b. Findings

No findings were identified.

1R22 Surveillance Testing (71111.22 – 6 samples)

a. Inspection Scope

The inspectors observed performance of surveillance tests and/or reviewed test data of selected risk-significant SSCs to assess whether test results satisfied TSs, the UFSAR, and Exelon procedure requirements. The inspectors verified that test acceptance criteria were clear, tests demonstrated operational readiness and were consistent with design documentation, test instrumentation had current calibrations and the range and accuracy for the application, tests were performed as written, and applicable test prerequisites were satisfied. Upon test completion, the inspectors considered whether the test results supported that equipment was capable of performing the required safety functions. The inspectors reviewed the following surveillance tests:

- STP-O-12.2, Emergency Diesel Generator 'B' on April 3, 2015 (inservice test)
- STP-O-13.4.1, B5B Fire Pump Annual Flow Test on April 18, 2015
- S-12.4, RCS Leakage Surveillance Record Instructions on May 27, 2015 (reactor coolant system)
- STP-O-2.8Q, Component Cooling Water Pump Quarterly Test on May 28, 2015 (inservice test)
- STP-I-9, Undervoltage and Under-Frequency Protection 11A and 11B – 4160 Volt Buses on May 28, 2015
- STP-O-13, Fire Pump Operation and System Alignment on June 7, 2015

b. Findings

No findings were identified.

Cornerstone: Emergency Preparedness

1EP5 Maintenance of Emergency Preparedness (71114.05)

(Closed) Unresolved Item (URI) 05000244/2014004-02: Adequacy of Exelon's Protective Action Recommendation Strategy

a. Inspection Scope

The inspectors reviewed this URI that had been initiated to determine whether Exelon's protective action recommendation (PAR) strategy met NRC requirements. During a routine emergency preparedness baseline program inspection in August 2014, the inspectors reviewed Ginna Station Nuclear Emergency Response Plan, Revision 03810, and noted that the 10-mile plume exposure pathway map, identified as Figure F-3, did not have emergency response planning areas (ERPAs) for the area of Lake Ontario that is located within the 10-mile emergency planning zone (EPZ). However, ERPAs were designated for the land area surrounding Ginna within the 10-mile EPZ. Exelon provides PARs to offsite response organizations (OROs) based on ERPAs. Therefore, because Lake Ontario was not assigned ERPAs for the area within a 10-mile radius of Ginna, Exelon did not include Lake Ontario, which could be populated with members of the public, in its PARs to the OROs. When questioned by the inspectors, Exelon provided a copy of Revision 0 of the Emergency Plan in which only the land areas were designated with ERPAs. Additionally, the inspectors reviewed Wayne County's and Monroe County's Emergency Plans to confirm actions would be taken to evacuate Lake Ontario in the vicinity of Ginna during an emergency at an Alert level.

Because this appeared contrary to 10 CFR 50.47(b)(10) which states, in part, a range of protective actions has been developed for the plume exposure pathway EPZ for emergency workers and the public, the inspectors opened URI 05000244/2014004-02. The inspectors had numerous discussions with the Office of Nuclear Security and Incident Response to determine how Ginna's Emergency Plan was approved, whether a performance deficiency existed, and whether a violation existed. It was determined that in the early 1980 timeframe, the licensee submitted the initial Emergency Plan for Ginna prior to Section 50.47(b) being added to the regulations in August 1980 (45 FR 55402). Therefore, the Emergency Plan was not approved by a safety evaluation report, but rather by a series of inspections in the 1980s that reviewed Ginna's Emergency Plan and made statements in the inspection reports with regard to whether specific aspects of the Emergency Plan were consistent with Federal guidance and met the requirements of 10 CFR 50.47(b). Based on these statements in the inspection reports, the licensee at the time, and now Exelon, believed they were meeting the regulation.

Appendix E, "Emergency Planning and Preparedness for Production and Utilization Facilities," of 10 CFR 50 has a note that states, in part, the plume exposure pathway EPZ for nuclear power plants shall consist of an area about 10 miles in radius. Although the regulations do not specifically indicate that bodies of water shall be included in the plume exposure pathway EPZ, it remains the staff's position that all potentially populated areas be addressed in a licensee's PAR scheme. In the statements of consideration for the 1980 Emergency Plan rule, the Commission stated that "the Commission's final rules are based on the significance of adequate emergency planning and preparedness to ensure adequate protection of the public health and safety" and "…must be bolstered by the ability to take protective measures during the course of an accident." The

Commission, in referring to “public health and safety,” did not exclude members of the public who may be on bodies of water within the plume exposure pathway EPZ. This would have been inconsistent with the NRC’s mission to protect public health and safety in its regulation of the processing and utilization of radioactive materials.

b. Findings

Exelon’s Emergency Plan at Ginna was not in compliance with the regulation at the time the URI was opened. Specifically, as required by 10 CFR 50.47(b)(10), Exelon did not include bodies of water in their PAR scheme for the plume exposure pathway. In December 2014, Exelon worked with the local county OROs and revised the ERPAs at Ginna to include Lake Ontario. Exelon has amended Ginna’s Emergency Plan (Revision 03900) and PAR scheme to reflect the change.

The NRC concluded that it was not reasonable for Exelon to have been able to foresee and correct the violation caused by not having PARs for Lake Ontario. Specifically, in light of the NRC inspection reports, which approved the licensee’s Emergency Plan and did not identify this issue, the licensee reasonably concluded that it was in compliance with NRC requirements. Therefore, the NRC did not identify any performance deficiency associated with the violation. IMC 0612, Appendix B, “Issue Screening,” issued September 7, 2012, directs disposition of this issue in accordance with NRC Enforcement Policy because there was no performance deficiency. Therefore, in accordance with NRC Enforcement Policy, Section 2.2.4.d, which states that a violation involving no performance deficiency is considered an exception to using only the operating reactor assessment program, the inspectors dispositioned this violation using traditional enforcement.

The inspectors used NRC Enforcement Policy, Section 6.6, “Emergency Preparedness,” to evaluate the significance of this violation. The inspectors concluded that the violation is more than minor and best characterized as Severity Level III (low-to-moderate safety significance) because it is similar to Enforcement Policy Example Violation 6.6.c.2. Additionally, the inspectors compared this evaluation to the risk associated with the issue by using IMC 0609, Appendix B, “Emergency Preparedness Significance Determination Process,” issued September 23, 2014. The inspectors screened the issue and evaluated it using Table 5.10-1, “Significance Examples 50.47(b)(10),” and Section 5.0.2.h, which describes the consideration of compensatory measures when screening for significance. The inspectors concluded that because Exelon provided the wind speed and direction on the notification form to the OROs, and because the counties take action to evacuate Lake Ontario at an Alert level, the planning standard function was not lost and would still be accomplished, albeit in a degraded manner. Based on these reviews, were it to be evaluated under the reactor oversight process, the issue would screen as low-to-moderate safety significance (White). This issue was entered into Exelon’s CAP as AR 1701509.

Because the inspectors determined no performance deficiency existed, the NRC has decided to exercise enforcement discretion in accordance with Section 3.5 of the NRC Enforcement Policy and refrain from issuing enforcement action for the violation (EA-15-025). Further, because Exelon’s action and/or inaction did not contribute to this violation, it will not be considered in the assessment process, or the NRC’s action matrix. This URI is closed.

4. OTHER ACTIVITIES

4OA1 Performance Indicator Verification (71151 – 3 samples)

.1 Safety System Functional Failures (1 sample)

a. Inspection Scope

The inspectors sampled Exelon's submittals for the Safety System Functional Failures (MS05) performance indicator (PI) for the period of April 1, 2014, through March 31, 2015. To determine the accuracy of the PI data reported during those periods, the inspectors used definitions and guidance in Nuclear Energy Institute (NEI) 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 7, and NUREG-1022, Event Reporting Guidelines 10 CFR 50.72 and 10 CFR 50.73." The inspectors reviewed Exelon's operator narrative logs, operability assessments, maintenance rule records, condition reports (CRs), ARs, event reports, and NRC integrated inspection reports to validate the accuracy of the submittals.

b. Findings

No findings were identified.

.2 Reactor Coolant System (RCS) Specific Activity and RCS Leak Rate (2 samples)

a. Inspection Scope

The inspectors reviewed Exelon's submittal for the RCS specific activity (BI01) and RCS leak rate (BI02) PIs for the period of April 1, 2014, through March 31, 2015. To determine the accuracy of the PI data reported during those periods, the inspectors used definitions and guidance contained in NEI 99-02, Revision 7. The inspectors also reviewed RCS sample analysis and control room logs of daily measurements of RCS leakage, and compared that information to the data reported by the PI. Additionally, the inspectors observed chemistry personnel taking and analyzing an RCS sample.

b. Findings

No findings were identified.

4OA2 Problem Identification and Resolution (71152 – 2 samples)

.1 Routine Review of Problem Identification and Resolution Activities

a. Inspection Scope

As required by Inspection Procedure 71152, "Problem Identification and Resolution," the inspectors routinely reviewed issues during baseline inspection activities and plant status reviews to verify that Exelon entered issues into the CAP at an appropriate threshold, gave adequate attention to timely corrective actions, and identified and addressed adverse trends. In order to assist with the identification of repetitive equipment failures and specific human performance issues for follow-up, the inspectors performed a daily screening of items entered into the CAP and periodically attended AR screening meetings.

b. Findings

No findings were identified.

.2 Semi-Annual Trend Review

a. Inspection Scope

The inspectors performed a semi-annual review of site issues, as required by Inspection Procedure 71152, to identify trends that might indicate the existence of more significant safety issues. In this review, the inspectors included repetitive or closely related issues that may have been documented by Exelon outside of the CAP such as trend reports, PIs, major equipment problem lists, system health reports, maintenance rule assessments, and maintenance or CAP backlogs. The inspectors also reviewed Exelon's CAP database of the first and second quarters of 2015 to assess CRs written in various subject areas (equipment problems, human performance issues, etc.) as well as individual issues identified during the NRC's daily AR review (Section 4OA2.1). The inspectors reviewed Exelon's trend ARs for the first and second quarters of 2015 to verify that Exelon personnel were appropriately evaluating and trending adverse conditions in accordance with applicable procedures.

b. Findings and Observations

No findings were identified.

The inspectors evaluated a sample of issues and events that occurred over the course of the first and second quarters of 2015 to determine whether issues were appropriately considered as emerging or adverse trends. The inspectors verified that these issues were addressed within the scope of the CAP or through department review.

The review did not reveal any new trends that could indicate a more significant safety issue. The inspectors assessed that Exelon personnel were identifying trend issues at a low threshold and entering them into the CAP for resolution, and were appropriately prioritizing investigation reviews. The inspectors noted minor adverse trends identified by Exelon staff in the areas of modification quality (AR 02430792), security computer issues (AR 02434291), maintenance related modification issues (AR 02437137), reactor coolant average temperature reactivity management (AR 02440724), source range nuclear instrumentation reactivity management (AR 02441062), siren failures (AR 02458306, AR 02460134, AR02466219), operation's briefs (AR 02481946), engineering procedure use and adherence (AR 02477826), maintenance rework performance (AR 02488628), alternate RCS injection modification implementation (AR 02512891, AR 02520950), and security diesel generator transfer time (AR02516840). The inspectors also noted that the site's nuclear oversight organization continued to identify negative trends at an appropriate level and elevated issues when necessary.

There were no adverse safety consequences as a result of these low-level trend issues. Based on the overall results of the semi-annual trend review, the inspectors determined that Exelon was properly identifying adverse trends at Ginna before they became more safety-significant problems. 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 these conditions were deficiencies of minor significance and, therefore, are not subject to enforcement action in accordance with the NRC's Enforcement Policy.

.3 Annual Sample: Flood/High Energy Line Break Barriers

a. Inspection Scope

The inspectors performed an in-depth review of Exelon's barrier control program. The inspectors assessed Exelon's problem identification threshold, associated analyses and evaluations, and prioritization and timeliness of corrective actions pertaining to flood, high energy line break, missile, and ventilation barriers. The inspectors reviewed CAP documents, procedures, program documents, and drawings, as well as conducted interviews with various Exelon staff to assess the adequacy, effectiveness, and timeliness of implemented corrective actions.

b. Findings and Observations

No findings were identified.

Exelon utilizes IP-CON-9, "Plant Barrier Control Program Implementation," Revision 00300, to provide guidance, clarification, and reference to actions necessary to evaluate and compensate for impaired barriers. The procedure encompasses doors, door seals, floors, walls, roofs, penetration seals, manhole covers, and other components; other barriers like fire, security, containment, and radiological are controlled using other programs.

The inspectors reviewed the program documentation, selected CAP documents, and conducted walkdowns of applicable areas, including the control building and roof, auxiliary building, and diesel generator building. The inspectors did not identify any new issues. Additionally, the inspectors determined that evaluations of previously identified deficiencies had been adequately completed.

4OA6 Meetings, Including Exit

On July 16, 2015, the inspectors presented the inspection results to Mr. William Carsky, Plant Manager, and other members of the Ginna staff. The inspectors verified that no propriety information was retained by the inspectors or documented in this report.

ATTACHMENT: SUPPLEMENTARY INFORMATION

SUPPLEMENTARY INFORMATION

KEY POINTS OF CONTACT

Licensee Personnel

J. Pacher, Site Vice President
W. Carsky, Plant Manager
D. Blankenship, Shift Operations Superintendent
S. Doty, Director, Site Maintenance
K. Garnish, Sr. Manager, Operations Support & Services
T. Harding, Manager, Site Regulatory Assurance
T. Mogren, Director, Site Engineering
T. Paglia, Director, Site Operations
J. Scalzo, Manager, Site Security
J. Sperr, Manager, System Engineering
S. Wihlen, Director, Site Work Management

LIST OF ITEMS OPENED, CLOSED, DISCUSSED, AND UPDATED

Opened/Closed

05000244/2015002-01	NCV	Failure to Perform 1-Hour Fire Tours as Required By the Technical Requirements Manual (Section 1R05)
05000244/2015002-02	NCV	Inadequate Procedure Implementation Results in Inadvertent Entry into 72 Hour Technical Specification Action Statement (Section 1R12)
05000244/2015002-03	NCV	Inadequate Preferred Auxiliary Feedwater Protection from Potential Block Wall Failures (Section 1R18)

Closed

05000244/2014004-02	URI	Adequacy of Exelon's Protective Action Recommendation Strategy (Section 1EP5)

LIST OF DOCUMENTS REVIEWED

Section 1R01: Adverse Weather Protection

Procedure
O-23, Hot Weather Seasonal Readiness Walkdown, Revision 00807

Action Requests

AR 02497189	AR 02498213	AR 02498220	AR 02502662
AR 02504107	AR 02504044	AR 02504085	AR 02504100
AR 02504107			

Miscellaneous
UFSAR

Section 1R04: Equipment Alignment

Procedures
STP-O-30.1, Safety Injection System Valve and Breaker Position Verification, Revision 00105
STP-O-30.3, Containment Spray System Valve and Breaker Position Verification, Revision 00100
STP-O-30.4, Auxiliary Feedwater System Valve and Breaker Position Verification, Revision 00401

Drawings
33013-1237, Auxiliary Feedwater Piping and Instrumentation Drawing (P&ID), Revision 69
33013-1261, Containment Spray P&ID, Revision 46
33013-1262, Safety Injection and Accumulators P&ID, Revision 33

Action Request
AR 02486602

Section 1R05: Fire Protection

Procedures
A-202, Fire Protection Program and Ginna Station Staff Responsibilities for Fire Protection, Revision 02900
A-52.12, Nonfunctional Equipment Important to Safety, Revision 07500
A-54.7, Fire Protection Tour, Revision 03501
A-601.13, Fire Protection / Appendix R Compensatory Actions, Revision 00201
FPS-3, Periodic Inspection of Fire Barrier Penetration Seals, Revision 00102
FRP-5.0, Auxiliary Building Intermediate Floor, Revision 00903
FRP-7.0, Intermediate Building Sub-Basement, Revision 00802
FRP-11.0, Intermediate Building Clean Side Basement, Revision 01002
FRP-24.0, Diesel Generator Room ‘A’ and Vault, Revision 00600
FRP-32.0, Transformer Yard, Revision 00601
OP-AA-201-001, Fire Marshal Tours, Revision 6
OP-CE-201-007, Fire Protection System Impairment Control, Revision 000

Drawings

21488-0100, Fire Barrier General Arrangement Sheet Fire, Smoke, and Pressure Barriers Plan View Elevation 253 feet 6 inches, Revision 13

21488-110, Fire Barrier General Arrangement Sheet Diesel Generator Room 'A' Floor Plan Penetration Locations Floor Elevation 253 feet 6 inches, Revision 6, Sheet 1

21488-110, Fire Barrier General Arrangement Sheet Diesel Generator Room 'A' Section A-A South Wall, Section B-B West Wall Penetration Locations Floor Elevation 253 feet 6 inches, Revision 6, Sheet 2

21488-0111, Fire Barrier General Arrangement Sheet Diesel Generator Room 'B' West and South Walls Penetration Locations Floor Elevation 253 feet 6 inches, Revision 6, Sheet 2

21488-0120, Fire Barrier General Arrangement Sheet Intermediate Building Clean Side Floor Plan – West End Penetration and Pyrocrete Locations Floor Elevation 253 feet 6 inches, Revision 7, Sheet 1

21488-120, Fire Barrier General Arrangement Sheet Intermediate Building Clean Side Floor Plan East Side Penetration Locations Floor Elevation 253 feet 6 inches, Revision 9, Sheet 2

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Work Order
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LIST OF ACRONYMS

10 CFR	Title 10 of the *Code of Federal Regulations*
AC	alternating current
AFW	auxiliary feedwater
AR	action request
CAP	corrective action program
CR	condition report
CREATS	control room emergency air treatment system
ECP	engineering change package
EDG	emergency diesel generator
EPZ	emergency planning zone
ERPA	emergency response planning area
IMC	Inspection Manual Chapter
NCV	non-cited violation
NEI	Nuclear Energy Institute
NRC	Nuclear Regulatory Commission, U.S.
ORO	offsite response organization
P&ID	piping and instrumentation drawing
PAR	protective action recommendation
PI	performance indicator
RCS	reactor coolant system
RG&E	Rochester Gas and Electric
SSC	structure, system, and component
SW	service water
TRM	technical requirements manual
TS	technical specification
UFSAR	Updated Final Safety Analysis Report
URI	unresolved item
WO	work order